From:	[redacted]
To:	Manston Airport
Subject:	Manston Airport DCO
Date:	29 June 2021 11:21:41
Attachments:	TR020002-003137-Stonehill Park Limited - Written Representation.pdf

Attn of Manston Airport Case Team

I attach reports commissioned by Stonehill Park in response to the application for a DCO made by RiverOak Strategic Partners Ltd. completed by both York Aviation and Altitude Aviation, they assess the viability of Manston Airport as a Freight Hub and offer a critique of RiverOak's submission.

Overall Conclusion

372. It is highly unlikely that a re-opened Manston could play any significant role in serving the needs of the UK air cargo industry. There is currently no shortage of overall capacity, and future demand growth into the long term can be met with planned expansion from the leading cargo airports in the UK.

Submitted by
James Hose
[redacted]

https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR020002/TR020002-003137-Stonehill%20Park%20Limited%20-%20Written%20Representation.pdf

WRITTEN REPRESENTATIONS OF STONE HILL PARK LIMITED

APPLICATION FOR COMMISSION DEVELOPMENT CONSENT ORDER FOR THE UPGRADE AND REOPENING OF MANSTON AIRPORT
PLANNING INSPECTORATE REFERENCE TRO20002

15 FEBRUARY 2019

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Appendix 5: Analysis of the freight market potential of a reopened Manston Airport – Addendum February 2019, Altitude Aviation

Appendix 6: Compensation Assessment, February 2019, Avison Young

Appendix 7: Relevant Representations of Stone Hill Park Limited (RR-1601). [1]

[1] Note – the Relevant Representations are appended here without their extensive appendices. Those appendices, however, remain highly relevant and should be fully taken into account.

1 Introduction

1.1 These Written Representations are submitted on behalf of Stone Hill Park Limited (SHP) by Quod[2].

1.2 SHP is aware that the Examining Authority already has before it very substantial material relating both to the Applicant's case and the principles of the case made against the application by SHP. In particular, SHP submitted substantial material in its Relevant Representations in October 2018 (RR-1601) as set out in **Appendix 7**.

1.3 This is a highly unusual DCO application for the many reasons summarised in Paragraph 1.3 of **Appendix 7**, and this is reflected in the scale and breadth of that, and this, submission. As the owner of the former Manston Airport, SHP finds itself in the unprecedented position that a hostile DCO application is being made to attempt to secure of powers of compulsory acquisition to secure the whole of SHP's land interest.

1.4 These representations are fully supported by extensive appendices, evidence and expert analysis but the purpose of this document is to attempt to succinctly explain SHP's fundamental objection to the DCO application having particular regard to the key legislative policy and guidance tests to which the Examining Authority will have to have particular regard, given the evidence being put before them.

1.5 SHP's representations attempt to not directly duplicate material already submitted or material provided in the new appendices to these representations. Instead, they are intended as a guide and explanation to SHP's fundamental objection to the DCO application. The facts, evidence and arguments are best understood by reading the full reports prepared by SHP's highly experienced advisory team, however the following quotes from York Aviation and Altitude Aviation highlight the fundamental inadequacies in RSP's evidence base;

> *"Fundamentally, the whole Need Case for the development of Manston as an air freight hub is infected with flaws and errors of understanding such that the so-called 'forecasts' of air freight and passenger demand have no credibility at all."* York Aviation Feb 2019

> *"We consider the forecasts to be extremely optimistic, not credible or likely, with negligible supporting evidence."* Altitude Aviation Advisory Feb 2019

1.6 The representations are structured as:

Section 2: Nationally significant infrastructure project?

[2] These representations have been drafted by John Rhodes OBE, who founded Quod in 2010. Quod has established a reputation as one of the leading planning consultants in the field of infrastructure with direct involvement in a number of DCO applications including Hinkley Point C, Sizewell C, Thames Tideway Tunnel, Wylfa, West Midlands Interchange and a number of other DCO applications. Quod also advises Transport for London on infrastructure projects such as the Northern Line Extension, Bank Station interchange, Crossrail 2 and the Barking Riverside Extension as well as the Rotherhithe to Canary Wharf Crossing. Quod is currently advising Heathrow Airport Limited on the third runway at Heathrow and has extensive experience acting on behalf of airports including London City Airport. John Rhodes was a founding member of the National infrastructure Association and a principal advisor to the Government on the National Planning Policy Framework, CIL reform and the Local Plans Expert Group, which John chaired. John Rhodes was awarded an OBE for his services to the economy, planning and communities in 2015.

Section 3: **History**

Section 4: **The case for housing**

Section 5: **Application proposals**

Section 6: **Need**

Section 7: **Funding cover viability and deliverability**

Section 8: **Compelling case in the public interest?**

1.7 The representations are supported by the following appendices:

Appendix 1: **Rebuttal of NSIP justification**

Appendix 2: **History of Efforts to keep Manston Airport Open**

Appendix 3: **The case for housing, Avison Young**

Appendix 4: **Updated critique of assessment of the need and justification for the development of Manston Airport as an air freight hub, February 2019, York Aviation;**

Appendix 5: **Analysis of the freight market potential of a reopened Manston Airport – Addendum February 2019, Altitude Aviation**

Appendix 6: **Compensation Assessment, February 2019, Avison Young**

Appendix 7: **Relevant Representations of Stone Hill Park Limited (RR-1601).** [3]

1.8 These representations also refer to and draw upon materials submitted by SHP in and with its Relevant Representations.

1.9 These representations focus on the principal matters outlined above. Other more detailed issues were additionally submitted with SHP's Relevant Representations. SHP maintains its position in relation to those matters but is conscious that they are being closely examined by the Examining Authority. SHP fully reserves its rights to provide additional information and evidence in response to further questions raised by the Examining Authority or responses provided by the Applicant during the Examination.

[3] Note – the Relevant Representations are appended here without their extensive appendices. Those appendices, however, remain highly relevant and should be fully taken into account.

2 Nationally Significant Infrastructure Project?

2.1 The application by RiverOak Strategic Partners Limited (RSP) was accepted by the Planning Inspectorate (at the second attempt) but SHP has expressed its very significant concern that the application does not meet the criteria to qualify as a Nationally Significant Infrastructure Project (NSIP) under section 23 of the Planning Act 2008. The matter was addressed in section 3 of SHP's relevant representations, supported by detailed appendices prepared by SHP's solicitors Pinsent Masons, and advice by leading Counsel. [4]

2.2 The importance of this issue is difficult to over-state. Essentially, RSP are seeking to use the DCO process to propose the use of an airport as an airport in order to secure powers of compulsory acquisition which have been denied to them through other means.[5] Both instinctively and with the benefit of more detailed examination, the proposed development does not meet the threshold requirements for a DCO application. If that is the case, granting DCO consent and giving effect to the wide-ranging powers it confers would not be lawful.

2.3 The decision of the Planning Inspectorate to accept the application may place the Examining Authority in a difficult position but that does not alter the responsibility of the Examining Authority to test this matter with the benefit of these representations and all other matters which are relevant and important.

2.4 At the application stage, no party including SHP was given the opportunity to comment upon RSP's revised 'NSIP Justification', which RSP declined to allow to be made public. At Deadline 1, RSP produced an updated NSIP Justification and SHP's **Appendix 1** responds to both the original and the updated Justification. The terms of the Appendix are not repeated here but it makes the following principal points:

a) there is an existing lawful use certificate which confirms the status of Manston Airport for civil aviation uses, with no caps or limits. The fact that the airport is not currently in operation does not detract in any way from its existing lawful use;

b) RSP's NSIP Justification contains a number of significant factual errors in relation to the current physical condition and capability of the airport. Any works necessary to bring the airport back into operational use are minor in nature and could not possibly justify the use of the DCO process. For example, even if RSP was correct (which it is not) that the fire station has no roof, the effects of its interpretation is that the owner of the airport would be required to seek development consent under section 31 of the Planning Act 2008 for the sole purpose of replacing the roof;

c) the absence of a current aerodrome certificate does not affect the lawful use or the practical capability of the airport. Certification is not achieved through the DCO process but certification could be readily be achieved were it proposed to bring the airport back into operational use;

[4] SHP's relevant representations, particularly appendices 14, 14a, 14b, 14c, 17 and 18.
[5] The DCO process was only instigated after RSP's predecessor RiverOak Investment Corporation LLC failed to satisfy Thanet District Council that it fulfilled the requirements for a suitable indemnity partner for a compulsory purchase process.

d) The work undertaken by York Aviation with the benefit of detailed knowledge of the airport demonstrates that the existing airport has an operational capability of 21,000 ATMs, which exceeds the forecast and assessed operations of the airport claimed in RSP's application.

2.5 In order to address these issues, RSP has proposed an application with a claimed operating capability of 83,220 movements per annum.[6] This is notwithstanding that RSP forecast and assess that its proposals would achieve a maximum of 17,170 movements per annum, with any prospect of exceeding that figure described as 'remote'.[7]

2.6 This background creates fundamental difficulties for RSP's application, because:

- the scale of the facilities proposed vastly exceeds that which is necessary to meet RSP's own claimed forecast, fundamentally undermining RSP's case for compulsory acquisition – see later;
- RSP's Environmental Statement does not assess the likely significant effects of the development being applied for, i.e. an airport with the physical capability for 83,220 ATMs per annum; [8]
- RSP's updated NSIP Justification attempts to address this difficulty by suggesting that mitigation could be imposed to ensure that environmental impacts remain within the level assessed in the Environmental Statement.[9] Whether this mitigation is in the form of a movement cap or an environmental envelope reflecting the forecast impact of 17,170 ATMs, the effect would be to limit the capability of the airport to well below its claimed physical capability and below that for which the airport already has capability.

2.7 There are other fundamental difficulties with the application including the failure to provide an explanation or justification for the elements of its proposed project that it purport to be NSIP development and that is considers to be Associated Development. Further, the grossly excessive scale of the Associated Development cannot possibility be justified in the context of even the claimed throughput of the airport. In fact, literally all of the floorspace proposed in RSP's application is not NSIP Development based on an appropriate classification in line with RSP's own representations (see **Appendix 1** paragraph 5.16), a fact which further underlines the suspicion that this DCO is being made in order to secure the ownership of the land for development unrelated to its use as a freight airport. These matters are addressed in more detail in sections 4 and 7 of these representations.

[6] Updated NSIP Justification paragraph 23.
[7] Updated NSIP Justification paragraph 27 and 30.
[8] As required by Regulation 14 Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 – see appendix 1 paragraph 3.5.1.
[9] Updated NSIP Justification paragraph 31.

3 History

3.1 The purpose of this section is to provide the Examining Authority with factual information relating to the history of Manston as an operating airport.

3.2 In a situation where the Examining Authority is faced with alternative forecasts of the future, it must be instructive to be guided by the real-life experience of attempts to operate Manston as a freight airport in the years since 1999 when it was purchased by Wiggins Group for the purposes of operating a commercial airport.

3.3 The history of successive failures to secure viable airport operations is, perhaps understandably, glossed over rapidly in our RSP's application documents. The history of failure is not disclosed in RSP's Planning Statement.[10] Equally, RSP's need case contains only 3 paragraphs relating the history of commercial operations.[11] Those short paragraphs explain that Manston established a reputation for speedy handling of perishable cargo but that its success was it constrained by a severe lack of investment. They do not explain that the airport operation was consistently unviable.

3.4 The independent assessments of need undertaken by AviaSolutions, York Aviation and Altitude Aviation all considered it appropriate to review more closely the history of Manston's previous operations in order to identify lessons for the future. **Appendix 2** to these representations comprises a factual record of the history of efforts to keep Manston airport open. The Appendix reveals no lack of ambition on behalf of Wiggins Group or its successor Infratil and documents a history of investment made against ambitious published plans for expansion by experienced airport operators.

3.5 In its independent report *Commercial Viability of Manston Airport* for Thanet District Council in September 2016, AviaSolutions recounted the history of Manston Airport (see Section 3 of the report), revealing a history of successive failure. Wiggins invested £7 million in aprons and taxiways, [12] whilst AviaSolutions document that Infratil lost more than £3 million per annum and wrote off the whole of its purchase price of £17 million pounds. Altitude Aviation's January's 2018 report (submitted with SHP's Relevant Representations, at Appendix 11) documents the scale of losses (page 17). When Infratil could no longer sustain those losses, Manston was put on the market as an airport and marketed for 2 years but failed to secure a purchase price of more than £1. It is notable that Prestwick, a comparable airport in many respects to Manston was also being sold by Infratil was nationalised by the Scottish Government at the same time. Four years on, Prestwick remains in state ownership, is loss making and has received over £40m of taxpayer funding to maintain operations. The attempts by Manston Sky Port Limited to sustain airport operations in period 2013 – May 2014 are documented in **Appendix 2**. The current landowner, SHP, subsequently acquired the land interests for £7m in September 2014 with the objective of pursuing the mixed use regeneration of the site.

3.6 The history also documents the very low level of market share and freight movement secured by Manston (see AviaSolutions September 2016, paragraph 3.3 and Altitude Aviation's report of January 2018 page 32). The total number of cargo air transport movements of Manston averaged c.550 per

[10] Planning Statement – Paragraphs 2.1-2.7
[11] Azimuth Reports, Volume 1 Paragraphs 7.2.1-7.2.3
[12] Analysis of the freight market potential for a re-open Manston Airport, January 2018 Altitude Aviation Paragraph 1.6.8

annum in period 2000-2014. This is equivalent to less than one aircraft rotation a day. In every year since 2005, Manston cargo ATMs accounted for less than 1% of the UK total.

3.7 Manston's record of cargo tonnage is recorded in Table 8 of Azimuth's Volume 1 Report. In the years 2004-2014, cargo peaked at 30,000 tonnes in 2009. This compares with Azimuth's current forecast of c.100,000 tonnes assumed in the first year of operation.[13]

3.8 Altitude Aviation summarise the repeated failure of Manston as a cargo airport as not being due to a lack of ambition or investment but to at least 3 fundamental problems;

- the location of Manston on a peninsula remote from centres of activity and remote from the very large majority of the country;
- the availability of far better resourced and located airports with significant capacity (at Heathrow, Stansted and East Midlands); and
- the likely restriction on night flight movements.

3.9 The history demonstrates that these fundamental constraints have and will continue to limit the ability of Manston to succeed as a freight airport.

[13] Azimuth Volume 3 Table 1.

4 Case for housing

4.1 Manston airfield is largely a brownfield site and the most sustainable location for residential development in Thanet district. The district has a chronic and acute shortage of housing and the "loss" of the airport as a planned site for residential led development is causing a number of unsustainable outcomes.

4.2 In not updating its Local Plan since 2006, Thanet District has been one of the worst performing local authorities in the country. Using powers available under section 27 of the Planning and Compulsory Purchase Act 2004, the Secretary of State has recently issued a direction in relation to the Thanet Local Plan on the basis that Thanet District Council:

- does not have an up to date local plan in place – the Council's last local plan was adopted in 2006 and covered a period up to 2011;
- has failed to meet the milestones set in at least five Local Development Schemes since 2006; and;
- has failed to plan for and deliver the homes people need in Thanet.

4.3 In a letter dated 31 January 2018 to the Secretary of State, the Council's Chief Executive explained the lengthy process which oversaw successive failures to submit a local plan. The letter explained: -

"During this process, one of the key issues has been the future of the airport site at Manston, and this has been the primary cause of delay to the progression draft Local Plan.

4.4 Following the airport's closure in May 2014, the Council carried out a number of unsuccessful exercises to seek to secure the re-opening of the airport. However, in June 2016 the process was discontinued. As part of this process, the Council took specialist advice from AviaSolutions on the potential viability of airport operation at Manston. The report concluded that "*airport operations at Manston are unlikely to be financially viable in the longer term, and almost certainly not possible in the period to 2031*". The site was subsequently identified for mixed use development in the Proposed Revisions to the draft plan published for consultation in January 2017.

4.5 On 18 January 2018, officers recommended submission of the draft Local Plan informed by a Sustainability Appraisal. The Plan included the identification of the airport site for a new settlement of c.2,500 dwellings. Members rejected the recommendation. In July 2018 the draft Local Plan was taken back to Council where officers presented two options, with and without the allocation of the airport for a new settlement. Again, officers recommended the first option, but members voted against, requiring the 2,500 homes to be allocated to alternative greenfield sites.

4.6 The draft Local Plan has been submitted on that basis. Paragraph 1.40 of the draft recognises the Councils evidence base, namely that airport operations at Manston are very unlikely to be financially viable. Nevertheless, paragraph 1.41 explains that the Council is proposing not to allocate the airport site for any specific purpose in the draft local plan (but is removing policy EC4 that restricted use to aviation related purposes), whilst paragraph 1.45 explains that, in the event that a DCO is not accepted or granted or does not proceed, the Council will need to consider the best use for the site in the next local plan review.

4.7 In December 2018, the two appointed Local Plan Inspectors wrote to the Council seeking a further explanation of this position, although the examination had not yet commenced.

4.8 On 28 January 2019, the Secretary of State directed that the District Council must amend its Local Development Scheme to provide for the completion of a review of the Local Plan within 6 months of its adoption.

4.9 These exceptional measures arise from the District Council's persistent failure to plan for and deliver homes. The Secretary of State's letter explains that Thanet is within the top third of districts in England for high housing pressure, based on average affordability ratios and that the district lacks a 5-year housing land supply.

4.10 These matters are elaborated in **Appendix 3** to these representations, which sets out the case for housing on the airport site.

4.11 It is beyond dispute that the district has a severe housing shortage born out of persistent under delivery and that the use of Manston airport for a new settlement would not only make a major contribution towards meeting local housing needs, it would also do so in the manner consistent with the conclusions of the Local Plan Sustainability Appraisal. **Appendix 5** explains the nature of, deliverability of and benefits of SHP's proposals for comprehensive residential led development of the site.

4.12 The Appendix also identifies that the consequence of the airport's non-allocation has been the proposed designation of 5 new strategic sites: all of which are greenfield sites of "*very good*" or "*excellent*" Agricultural Land Classification, which if lost, could not be replaced.

4.13 Additionally, if the DCO is approved, it would prejudice the development of the allocated strategic housing site at Manston Green which lies adjacent to and overlaps with the eastern end of the airport at the end of the runway.

4.14 SHP has submitted strong representations to the Local Plan pointing out the persistent conflict with officer advice and the evidence base supporting the Local Plan is driving the extreme strategy of a Local Plan which turns its back on its most sustainable site at a time of extreme housing pressure. The draft Local Plan itself records that the evidence available to the Council is that airport use at Manston is not financially viable.

4.15 It follows from this that there is a genuine, sustainable and deliverable alternative to the DCO application proposals which would generate very substantial local benefit and is also fully in line with national policy objectives.

5 Application Proposals

5.1 Given its requirement for compulsory acquisition, quite apart from its requirement to justify the impacts of its development, the onus sits squarely with RSP to justify the scale of development proposed. With a claimed capacity of 83,220 movements per annum but a forecast throughput of only 17,170 movements, RSP's case has clear difficulties. Despite strong concerns expressed by SHP and others throughout the pre-application stages, RSP's submitted application and further NSIP Justification contains virtually no explanation for the scale of the facilities proposed (or how they satisfy the criteria required for NSIP development and Associated Development).

5.2 SHP's assessment is brought up to date in Section 6 of the updated York Aviation Report (**Appendix 4**), together with the analysis presented in **Appendix 1** in relation to NSIP Justification.

5.3 As York Aviation observe, RSP's Design and Access Statement confirmed that the scale of facilities was an instructed input from RSP (although the Client Brief has not been provided). York Aviation observe, however, that any justification for airport facilities would normally be based on a bottom-up assessment of requirements using an indicative busy day schedule of aircraft movements. No such analysis has been provided.

5.4 Instead, York Aviation attempt their own assessment and their conclusions are set out below.

> *The RSP Application Documents fail to set out any material that justifies the extent of facilities proposed by reference to their own 'forecasts' both for the core airport infrastructure and any claimed associated development on the Northern Grass.*
>
> *In this section, we have considered the infrastructure that would be required if RSP/Azimuth's air freight forecasts were correct to assist the Examining Authority. This is without prejudice to the evidence that strongly suggests that they are unattainable. We have set out the basis for estimating the required number of stands and cargo terminal infrastructure to enable RSP's forecasts to be accommodated based on the times that airlines would wish to fly, including the required night operations.*
>
> *Based on proper analysis of airline operating patterns, the maximum number of stands that would be required, even allowing a buffer for resilience, would be 10. Based on global benchmarks, the scale of cargo sheds could also be substantially reduced, probably to around 1/3 of the scale indicated.*
>
> *As far as the Northern Grass is concerned, the list of airport related uses provided in response to questions from the Examining Authority is no more than a list of uses that may be required at an airport without any specific reference to whether they are actually needed at Manston or, indeed, the extent to which these uses would need to be accommodated in an airside location in any event.*
>
> *Based on East Midlands Airport (EMA) and its Pegasus Business Park, despite the major freight hub activity, only around 13,000m2 of accommodation within the business park is airport related other than hotels. The remainder of the occupiers are non-airport related and so would not qualify as associated development. It is simply not credible that Manston could sustain more of these uses than the UK's main dedicated freighter hub at EMA.*

5.5 The detailed analysis is set out in Section 6 of York Aviation's updated report. Specific points to note, however, include:

- whilst RSP propose 19 Code E aircraft stands, RSP's own forecasts identify that 40% of aircraft movements are projected to be by smaller aircraft and explain that it is normal practice for that scale of aircraft to be accommodated side by side within the area of one Code E stand;
- RSP's forecasts take no account of the use and turnover of stands throughout the day but instead it would appear to assume that 60% of aircraft movements need to be accommodated at the same time, which is both unrealistic and massively inefficient;
- even on a highly conservative assumption, the forecast capacity could be fully served by no more than 9 stands and RSP appear to have assumed more than 100% over provision;
- the proposal to provide 65,500m^2 of "cargo facilities" is nowhere justified by RSP but analysis using standard industry multipliers suggests that the scale proposed is oversized by an order of 3 times at least; and
- the claimed inclusion of facilities for General Aviation, Aircraft Recycling, Maintenance Repair and overhaul is again not subject to any justification but York Aviation note that these facilities are proposed in highly competitive markets in a fundamentally sub-optimal location and they see limited scope from Manston to attract these activities to any material extent.

5.6 In addition, the application proposes 105,100m^2 of B1/B8 uses in an 'airport related' business park on the Northern Grass area. Despite being fully aware that the scale of development is widely regarded as literally incredible, RSP found itself unable to justify the floorspace in its Updated NSIP Justification, advising instead that it would provide further information at Deadline 3.[14]

5.7 It is difficult to regard the proposed business park as anything other than a transparent attempt to justify the acquisition of the extensive Northern Grass area. The inability to justify the scale of floorspace proposed is unsurprising given the analysis set out in section 6 of York Aviation's report (**Appendix 4**, paragraph 6.31-6.37).

5.8 With literally no justification put forward for the development, no indication of likely occupiers and no relevant precedent it is difficult to understand how these proposals have come to form part of a DCO application. SHP will wish to respond to any further information submitted at Deadline 3 but, in the meantime, draws attention to the assessments set out by York Aviation and the comparison drawn, for instance, with the Pegasus Business Park, at East Midlands airport which is significantly smaller in scale and contains a wide range of uses that could not be described as Associated Development. This is notwithstanding that East Midlands airport sits within the 'Golden Triangle' the most favoured distribution location in the UK.

5.9 **Appendix 1** to these representations considers the legal tests and Guidance relevant to Associated Development (see **Appendix 1** Section 5). A number of the Works proposed within the application are put forward as 'airport related'. However, the requirement for Associated Development is that it should be associated with the principal development, justified against section 23 of the Planning Act 2008, namely '*to increase by at least 10,000 per year the number of air transports movements of Cargo aircraft for which the airport is capable of providing air cargo transport services.*' In this context, provision for general aviation or passenger facilities cannot be justified as development associated

[14] 2.3 Updated NSIP Justification Paragraph 18

with the principal development. The relevant Guidance[15] provides (paragraph 5) a number of core principles including: -

"The definition of associated development requires a direct relationship between associated development and the principal development."

5.10 Even if a direct relationship could be proven, the additional core principles create significant difficulties for RSP because they require:

- the associated development should not be an aim in itself, but should be subordinate to the principal development;
- Associated Development should not be provided only as a source of additional revenue to cross-subsidise the costs of the project; and
- the associated development should be proportionate to the nature and scale of the principal development.

5.11 As **Appendix 1** to these representations demonstrates, RSP's purported Associated Development is in conflict with these core principles; the scale of Associated Development is completely out of proportion to the principal development (see particularly **Appendix 1** paragraph 5.16), much of the purported Associated Development appears to be an aim in itself (e.g. Work Numbers 15-17) and appears to be included only as a means of cross-subsidising the costs of its project and a justification for excessive land take. It is not possible to objectively test the point on cross subsidisation, as the Applicant has failed to provide any financial information on which the costs and revenues relating to elements of its project can be assessed. As Altitude Aviation clearly set out in its report (**Appendix 5**), it is simply not credible that RSP could raise funding for its project without detailed information of this nature.

[15] Guidance on associated development applications for major infrastructure projects, DCLG April 2013

6 Need

6.1 RSPs' case for the DCO is fundamentally based upon the forecasts for the establishment and growth of cargo and passenger flights set out in the Azimuth reports (APP-085). If the Azimuth reports do not withstand scrutiny, RSPs' business case, its funding assumptions, its land requirements and the entirety of its DCO application cannot be sustained. The Azimuth forecasts are directly refuted on behalf of SHP by York Aviation and Altitude Aviation and (independently) in the reports prepared for Thanet District Council by AviaSolutions. The reports produced by those parties set out their extensive experience in the aviation industry, and the conclusions of each are based on a very detailed evidence base, which contrasts markedly with the limited experience of Azimuth and the unevidenced assertions and speculative arguments contained within the Azimuth report.

6.2 **Appendices 4 and 5** to these representations provide updated reports from York Aviation and Altitude Aviation, taking account of the latest available industry information but also any changes relied upon by Azimuth and RSP in the DCO application documents. Those updated reports are extensive, fully evidenced and they are respectfully commended in their entirety to the Examining Authority. This section of the representations can and will only set out a brief guide or summary.

6.3 That guide is provided under the following headings:

- Is there a shortage of capacity that demonstrates a need for a reopened dedicated freighter airport at Manston?
- Industry trends and forecasts: and
- Azimuth's forecasts.

Is there a shortage of capacity that demonstrates a need for a reopened dedicated freighter airport at Manston?

6.4 The fundamental, repeated basis for RSP's case is that there is a severe shortage of capacity, particularly in the South East, which creates the opportunity for expansion at Manston.[16]

6.5 As an example, Azimuth Volume 2 seeks to create some distance from DfT forecasts, as follows:-

"2.5.3 However, the DfT figure reflects national demand and may not apply locally to Manston. The demand for Manston airport is expected to increase in response to continuing capacity constraints at other airports in the South East."

6.6 It is instructive that Azimuth's thesis has not changed in this respect from its pre-application forecasts published in March 2017. The Planning Statement, for instance relies on documented shortages of airport capacity in 2013 and 2014 (paragraphs 8.13 and 8.64).

6.7 The work contains no real appreciation or consideration of the fundamental change in circumstances represented by the Government's designation of the Airports National Policy Statement in June 2018,

[16] This principle is repeated, for instance, throughout the Planning Statement at paragraphs 1.10, 1.17, 1.18, 1.20, 1.23, 1.47, 4.20, 6.13, 6.23, 6.30, 6.72. 8.13, 8.27, 8.64 and 9.36. It is also the fundamental premise of Azimuth Volume 1 and is set out repeatedly in Azimuth Volume 2, for example at paragraphs 1.1.2, 4.2.9, 4.4.8, 4.4.15 etc.

which confirmed national policy support for the development of a third runway at Heathrow Airport. The significance of expansion at Heathrow, of course, is that Heathrow already dominates the UK freight market. Relevant data is provided in the Altitude Aviation report of January 2018 provided as part of **Appendix 5**. In 2016 Heathrow secured a market share of 64.6% of the overall UK air freight market, achieving a throughput of approximately 1.5 million tonnes. The data provided in the AviaSolutions report of September 2016 (Appendix 2 of the Relevant Representations page 28) confirms the same picture. Heathrow's function as the primary freight airport was a significant consideration in the Government's selection of Heathrow over Gatwick for an additional runway[17]. In 2015 Heathrow published its Blueprint for a £180 million overhaul of cargo facilities, together with a commitment to double freight capacity to 3.0 million tonnes with the advent of the third runway. Heathrow's published proposals for its North West runway confirm its commitment to open the runway by 2026. The advent of this substantial uplift in freight capacity fundamentally transforms the market, renders out of date previous references to runway shortage and undermines the Azimuth forecasts.

6.8 The reports prepared by York Aviation (see particularly Section 4 of **Appendix 4**) and Altitude Aviation (see Paragraphs 32-33 and section 3.4 of **Appendix 5**) assess capacity and provide detailed explanations as to why there is no shortage in capacity for freighters, with planned expansions at existing airports comfortably providing sufficient capacity until 2040 and beyond.

6.9 Based on the structure of the air freight market and Manston's challenges (principally location, competitive forces and continuing trend to bellyhold), both York Aviation (see Paragraphs 4.43-4.46 of **Appendix 4**) and Altitude Aviation (see Paragraph 88 of **Appendix 5**) are clear that a reopened Manston could only serve a niche role, similar to its historic level of operations.

Industry trends and forecasts

6.10 The air freight market is reviewed in the updated Altitude Aviation report and in sections 3 and 4 of the updated York Aviation report. Several important trends emerge.

6.11 First, whilst the Azimuth forecasts were submitted against a background of strong air freight growth in 2017 (after a long period of stagnation), up to date figures show a reduction in 2018, together with less optimistic future forecasts (updated Azimuth Aviation report section 3.1).

6.12 The number of dedicated freighter flights has been in consistent decline since at least 2000 (updated York Aviation report paragraph 3.21) and UK now total less than 55,000, of which only c.34,000 were non-domestic, limiting the pool of opportunities for Manston even further (see paragraph 3.22 of York Aviation report). York Aviation note that when the market opportunity is restricted to principally daytime operations, *"the market share implications of Azimuth's forecasts simply defy credibility in a market already well served by the better located operations."*

6.13 The York Aviation report also reports that the Government's UK Aviation forecasts predict no growth in dedicated freighter traffic (York Aviation report paragraph 3.18). The reasons for this are reviewed in both the York Aviation and Altitude reports, both of which identify a consistent growth in belly hold freight carried on passenger aircraft. Again, in this respect Heathrow is dominant, not least because of

[17] Aviation NPS paragraph 3.24

its hub network of long-haul flights. Doubling freight capacities at Heathrow will further consolidate and strengthen its position. The updated York Aviation report reviews the trend to belly hold in the UK from paragraph 4.2 onwards and at paragraph 4.7 explains the significant economic benefits of utilising belly hold capacity on passenger flights, which has the effect that a tonne of cargo carried in a dedicated freighter aircraft is likely to cost around 4.5 times more per tonne to transport that the same tonne of cargo carried in the belly hold of a passenger aircraft.

6.14 In this context, it becomes particularly important not to confuse forecast growth in overall cargo volumes with forecast demand for freighter movements. As Altitude Aviation explain (**Appendix 5** paragraph 85) even during spikes in cargo demand in recent years, this is not translated into additional freighter activity. Freighter demand has been in long term decline in the UK and serious questions should be asked of any proposed investment basing its business case on achieving growth in freighter activity.

6.15 York Aviation discuss these issues from paragraph 3.25 where they identify the very strained credibility of the Azimuth forecasts. Azimuth's prediction that Manston would handle 5,252 freighter aircraft movements in its first year of operation represents almost 5 times the number ever achieved at the airport at its peak in 2003 and an instant 10 % share of the total freighter market. Against a background of decline or flat growth, this could only be achieved through displacement from other freighter airports i.e. East Midlands and Stansted. Both airports, however, are far better located to serve the freight market than Manston, with an established infrastructure of freight forwarders and better transport links.

Azimuth forecasts

6.16 The updated Altitude Aviation report at section 4 reviews the Azimuth reports and identifies a number of instances in which those reports are based on partial, selective or inaccurate information. The detail of that review is too extensive to summarise here but it is commended as whole to the Examining Authority who will understand the concerns expressed that the Azimuth reports appear to take no account of spare capacity at existing freight airports, that Azimuth make remarkable claims (such as that Manston could be an overflow airport for Schiphol, whilst local airports in Holland are designated for that purpose with available capacity) and that Azimuth quote from a number of policy and other documents selectively without presenting a balanced or objective analysis.

6.17 Similarly, the updated York Aviation report identifies substantial fundamental errors in Azimuth's approach to forecasting as set out in full in their section 3. Examples include the material errors in airlines that could operate from a re-opened Manston (paragraphs 3.10-3.11), the use of out of date information (paragraph 3.20), the arithmetic misapplication of statistical data relating to growth (paragraphs 3.23 – 3.24) and material discrepancies and inconsistencies with regard to the proposed pattern of operations (paragraphs 3.37 – 3.47).

6.18 These matters by themselves, together with the failure to understand the consequences of trends in the market or the availability of capacity elsewhere are sufficient to fundamentally undermine the Azimuth forecasts.

6.19 It is relevant to ask, however, whether the Azimuth work actually presents forecast at all. As York Aviation advise, Azimuth forecasts are not undertaken in any industry standard or recognised way using market data or standard industry techniques (paragraph 3.1). Neither do they appear to have taken account of the relative cost of freight activity at Manston in any transparent way (paragraph 3.27). With a claimed projected investment of £300 million, no analysis is undertaken of the

consequent level of landing charges that would need to be recouped or whether the cost of using Manston for operators would be remotely competitive compared to established airports in more favourable locations.

6.20 Even more fundamental, however, it is important to understand how the "forecasts" have been derived or are intended to work.

6.21 Azimuth Volume 2 is a "*qualitative*" study of potential demand. In other words, it is a discussion paper apparently informed by two principal matters: an assumed, yet erroneous, shortage of capacity at other airports (e.g. paragraph 4.4.15) and "*interviews*" with industry stakeholders, many of whom were local companies who may have a vested interest in seeing Manston reopened.

6.22 Volume 3 then presents "*the forecast*". Paragraph 1.1.2 explains that Azimuth take "*a different approach*" by using a "*qualitative method*" identified from the literature review, presumably Volume 2 (paragraph 1.1.2).

> *"The approach identifies potential users of Manston airport and builds a forecast from this intelligence."*

6.23 The approach is further explained in paragraph 2.1.3 which explains that there were two alternative approaches. The first would be to use forecasts from one or more sources and divert a proportion of traffic to Manston. RSP's difficulty with such an approach, of course, would be that there is no forecast growth for freighter traffic and no shortage of capacity to divert to Manston. Consequently, Azimuth prefer the second option which "*was to take a qualitative approach focused on collecting market data*" (paragraph 2.1.4). The text which follows is confusing or confused. It appears to suggest that the qualitative approach uses "*push and pull*" factors that are likely to drive demand for Manston airport. Push factors include an assumed lack of capacity at South East airports (paragraph 2.2.4) although it is not easy to discern what the "*pull*" factors are intended to be.

6.24 In practice, significant reliance is placed upon earlier work undertaken by York Aviation (paragraph 3.1) which identified potential spill from other airports in the event that hub airport capacity was constrained (York Aviation have repeatedly demonstrated that Azimuth have misrepresented their previous work and drawn erroneous conclusions from it – this is fully addressed and explained to be inappropriate in the updated York Aviation report.)

6.25 In fact, what the Azimuth "forecasts" actually do is to make assumptions derived from the discussion in Volume 2 that airlines that were referenced by others or expressed any passing interest (or otherwise) in Manston are assumed definitely to operate from Manston. From that heroic base assumption, growth is applied based on speculative assumptions about what those particular airlines may want to achieve or on arithmetically flawed misunderstandings of national growth forecasts.

6.26 Azimuth's claimed operators are reviewed in the updated report from York Aviation (from paragraph 3.4 onwards). The list of airlines and the type of operation, as set out in more detail in RSP's Environmental Statement at Appendix 3.3 (App-044), raises further serious doubts about the credibility of the Azimuth forecasts. In paragraph 3.10 and 3.11 of its report, York Aviation identify a number of material issues (e.g. the stated airline does not operate freighter flights) with airlines that account for 90% of the aircraft movements projected by RSP for Manston in the first year of operation and over 80% in Year 20. York Aviation further note in paragraph 3.11:

"the absence of any analysis of the market for the proposed flights and a reasoned explanation for why each of the named airlines would operate to Manston means that the forecasts lack any credibility at all. In practice, most of the airlines relied on within RSP's 'forecasts' would or could not operate, invalidating the forecast and the assessments that depend on it."

6.27 York Aviation identify an additional serious problem with Azimuth's forecasts. RSPs application appears to be confused about whether or not Manston is proposed to be used as a dedicated freight cargo hub. Azimuth Volume 1 (paragraph 1.2.1) explains that RSP has identified the substantial need for additional and specialised airport capacity for dedicated freighters in the South East of England. Azimuth explain that the only cargo hubs in the UK at East Midlands and Stansted focus on the integrator market, whilst the UK needs a new hub for dedicated freighters. Equally, the Planning Statement confirms this approach and then at paragraph 9.39 explains:

"Additionally, there is the potential to attract an integrator to Manston airport, which would dramatically increase the profitability of the airport".

6.28 In fact, Azimuth's forecast presented at Appendix 3.3 of the Environmental Statement projects that 48% of the projected freighter aircraft movements in year 20 (and higher in earlier years) are assumed to be integrator operators. Azimuth should be requested to clarify whether the forecasts do, or not, include the level of integrator ATMs set out in Appendix 3.3 (APP-044). There are clearly implications either way depending on the answer.

6.29 A particular characteristic of integrators is the need to fly at night, with goods available for distribution early the next day. The updated York Aviation report reviews these issues from paragraph 3.37. At East Midlands, it identifies that 56% of total aircraft movements operate at night between 23.00 and 07.00, whilst RSP's forecast assumption for Manston is that only 14% of freighter traffic would fly at night. York Aviation's review concludes that this is simply incredible and represents a fundamental misunderstanding of the requirements of Integrators. Perhaps unsurprisingly, RSP cannot point to any commitment or genuine interest from Integrators to operate at Manston.

6.30 Quite apart from the night time constraint, Manston is fundamentally poorly located for Integrators because of its distance from markets and it cannot possibly compare as a location with Stansted or East Midlands. The lack of any established distribution or freight forwarding operators in Thanet confirms this obvious geographical disadvantage.

6.31 The reports by York Aviation and Altitude Aviation clearly show the analysis contained in the Azimuth reports lacks any credibility. As the issues and failures with Azimuth's reports are too extensive to summarise, the York Aviation and Altitude Aviation reports are commended as a whole to the Examining Authority. However, in summary, it is worth noting York Aviation's overall conclusion (see paragraph 26);

"Fundamentally, the whole Need Case for the development of Manston as an air freight hub is infected with flaws and errors of understanding such that the so-called 'forecasts' of air freight and passenger demand have no credibility at all. Even if they were credible, the scale of development proposed is unjustified and excessive. The development and operation of the Airport would simply be unviable and incapable of attracting competent investors."

7 Funding, viability and deliverability

7.1 The obligations on RSP are clear from the relevant guidance: [18]

> *"17. Any application for a consent order authorising compulsory acquisition must be accompanied by a statement explaining how it will be funded. This statement should provide as much information as possible about the resource implications of both acquiring the land and implementing the project for which the land is required.*
>
> *"19. Applicants will need to be able to demonstrate that any potential risks or impediments to implementation of the scheme have been properly managed."*

7.2 In addition, paragraph 13 of the Guidance explains that the Secretary of State will need to be persuaded that there is *"compelling evidence that the public benefits that would be derived from the compulsory acquisition **will** outweigh the private loss that would be suffered by those whose land is to be acquired".* (Emphasis added). If there is no prospect of the development coming forward, this test would be failed no matter what the scale of the asserted benefits might be.

7.3 SHP welcomes the Examining Authority's close attention to these issues and the recognition in the Planning Inspectorate's letter of 14 August 2018 to the Applicant that "*the Funding Statement poses substantial risk to the examination of the application".* SHP recognises that the Examining Authority's first written questions (ExQ1) pose a number of serious questions around the funding and deliverability of the project. In the light of those questions, and our assumption that the Examining Authority will require SHP's concerns regarding lack of information submitted in relation to funding and viability (as raised in Sections 8 and 9 of SHP's Relevant Representations) to be fully addressed by the Applicant, these representations can be kept relatively short for now but SHP will take the opportunity to carefully review RSP's responses submitted at Deadline 3 and is likely to submit further information in response by Deadline 4.

7.4 The abject failure of the Applicant to provide any significant information in relation to the funding, viability and deliverability of the project is striking given the obvious importance of the issues and the interest taken by the Planning Inspectorate in the pre-application process. Claims within the application documents such as *"RiverOak is fully resourced and funded to reopen Manston as a fully operational airport"*[19] are either untrue or at least are entirely unsupported.

7.5 The Planning Statement asserts at paragraph 9.35 that the Azimuth report considers whether reopening Manston Airport in the way intended by RSP would be viable, but this is simply not true. Nothing in the Azimuth report demonstrates or attempts to demonstrate financial viability.

7.6 RSP state that they are aware of the obligations on them as Applicant. The Funding Statement (paragraph 8) confirms that the Funding Statement should provide as much as information as possible, whilst the Planning Statement at paragraph 9.35 recognises that viability is an important consideration for the application. Nevertheless, no significant information has been submitted.

7.7 Pending the submission of that information, these representations consider two matters:

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[18] Guidance related to procedures for the compulsory acquisition of land, September 2013: DCLG.
[19] Planning Statement paragraph 1.6.

- the history of viability and deliverability explored by Thanet District Council; and
- SHP's own evidence about the likely severe lack of viability contained in the updated reports from York Aviation and Altitude Aviation (**Appendices 4 and 5**).

Thanet District Council

7.8 It is instructive that the exercise currently being undertaken by the Examining Authority in relation to viability and deliverability has previously been undertaken in similar terms by Thanet District Council. Extensive reports were submitted to successive Cabinet meetings in the period 2014-2016 on this subject and SHP would be pleased to provide these to the Examining Authority if they do not already have access to them.

7.9 Some information relating to the process undertaken by the District Council is provided at the end of our **Appendix 2**.

7.10 The relevant Council reports document the extensive work undertaken by the District Council to pursue the potential to re-open Manston Airport in the light of its potential economic importance to the district. These included seeking an indemnity partner to support compulsory purchase of the land. Importantly, the Council's objective set out in a report to Cabinet dated 11 December 2014 was not limited to the acquisition of the land:

"The objective of seeking an indemnity partner is to ensure that – if the council determines to pursue a CPO – a viable airport comes into sustainable long-term operation as quickly as is reasonably possible without any residual cost to the council.[20]"

7.11 Accordingly, the Council undertook marketing exercises in an attempt to attract a partner or investor in the airport. This included formal notification in the Official Journal of the European Union (OJEU). A total of 3 valid submissions were received and then assessed by a panel comprising the Council's Chief Executive and other senior officers. The assessment identified that none of the parties had any previous involvement in airport operation and development projects or any track record in attracting or providing long-term investment for the construction of major facilities and their subsequent operation.[21]

7.12 In June 2016, the Director of Corporate Governance advised the Council:

"Two rounds of soft market testing have not produced a suitable indemnity partner in relation to a CPO for Manston Airport. Any additional interest in pursuing a CPO outside the soft market testing process would of course have to pass the same stringent tests."[22]

7.13 During this period, the Council engaged extensively with RiverOak Investment Corporation LLC, the predecessor to RSP as promoter of the proposed DCO. The reports evidence the extensive efforts undertaken by the Council to secure the necessary commitments, evidence of funding or guarantees that RiverOak had the means not only to support a CPO but to follow through and deliver an

[20] Report to Extraordinary Cabinet 29 October 2015 paragraph 1.1
[21] Cabinet Report 16 July 2016 paragraphs 3.1-3.3
[22] Cabinet Report 16 July 2016 paragraph 4.4

operational airport. The Council's reports document RiverOak's track record of failing to provide the necessary information throughout the process and a failure to provide the necessary assurances[23].

7.14 As part of this process, RiverOak argued that it would only be necessary to demonstrate funding in stages, rather than making any commitment to the long-term project. As part of this, RiverOak referenced the approach taken in certain DCO and infrastructure projects, which it asserted were funded post consent. The advice to the Council from its officers was clear, however, that many of those projects were backed by central government, whereas the council has no resources to back the Manston CPO which is why it requires an indemnity partner.[24]

7.15 The Council took advice from Counsel and from specialist solicitors. The advice and the Council's conclusions were clear – the Council was not satisfied that it would be justified to make a CPO given the lack of assurances provided and given that the Council's objective was not to acquire the land but to ensure that a viable airport comes into sustainable long-term operation.

7.16 As part of this process, the Council informed itself by procuring specialist advice from AviaSoutions. The advice was clear:-

"AviaSolutions concludes that airport operations at Manston are very unlikely to be financially viable in the longer term, and almost certainly not possible in the period to 2031.[25]"

7.17 Having failed to persuade the Council to acquire the land through that route, RiverOak's successor RSP is attempting compulsory acquisition under cover of a DCO application. The tests, however, are the same.

SHP's review of viability

7.18 In the absence of any meaningful financial information from RSP, SHP specialist advisors have attempted to draw parallels from other airports and to reflect on these in the light of the circumstances at Manston (Altitude Aviation) and to provide an outline view of viability on the basis (which is completely unaccepted) that RSP's application and forecasts should be taken at face value (York Aviation).

7.19 Section 5 of the updated Altitude Aviation report (**Appendix 5**) explains that Altitude Aviation has significant experience in advising on the funding of airport investment and it sets out that information which investors ordinarily require before undertaking investment in a new airport project. Altitude identify that none of that information is currently available in respect of Manston.

7.20 Altitude Aviation benchmark Manston Airport against other regional airports of comparable scale (on the assumption that Manston reaches its forecast operation claimed by Azimuth). The evidence shows that airports of this scale struggle to deal with high fixed costs and, as a result, carry a higher ratio of costs to units of throughput than larger airports with which they attempt to compete. These characteristics are a substantial dis-incentive to investment. Altitude explain that airports respond by seeking to achieve a higher volume of throughput but in order to do so, they necessarily need to incentivise commercial operations by offering price advantages over competitors, putting further

[23] Extraordinary Cabinet 29 October 2015 paragraph 5.5
[24] Extraordinary Cabinet 29 October paragraph 3.25
[25] Commercial viability of Manston Airport, AviaSolutions, September 2016 paragraph 2.5

strain on their profitability. The evidence is clear that airports of this scale struggle to achieve profitability and none demonstrate a business model able to support the scale of investment proposed by RSP. As a result, Altitude Aviation are of the opinion that the airport would not be economically viable even if RSP could deliver on its optimistic forecasts.

7.21 Furthermore, in its concluding paragraph (paragraph 218), Altitude Aviation summarises the many challenges (which appear insurmountable) faced by RSP in securing debt and/or equity for its proposed project. Placing to one side the issue of viability, the final two bullet points of Paragraph 215 demonstrate why the lack of detailed business plan information must be a material concern for the Examining Authority in assessing deliverability;

> *"• Our expertise of supporting many institutional investors in the UK and international airport sector confirms that they would have the same issues and challenges as a debt provider with the lack of financial information related to the deliverability and viability of the RSP proposals."*

> *"• A further material issue for the RSP proposal is the much higher threshold of information required to satisfy debt or equity providers for a start-up business with no track record of performance or profitability. This is particularly the case where the project sponsor has no demonstrable track record of developing or operating a commercially successful airport business. This lack of experience and credibility is likely to be a major issue for potential debt and/or equity providers."*

7.22 Altitude Aviation's analysis of regional airports is confirmed by York Aviation who identify Prestwick as perhaps the most comparable airport to Manston with a similar sized freighter operation in 2007 to Manston at its peak. As freighter traffic has fallen away, Prestwick has suffered significant loses and has had to be nationalised by the Scottish Government to maintain operations[26].

7.23 Section 7 of the updated York Aviation report considers viability and funding for Manston Airport. As any investor would, it starts with a review of the track record of the airport which identifies a long history of loss making. Against a background of declining UK freighter activity, Manston could only succeed in attracting the levels of freighter traffic claimed by Azimuth at the expense of other UK airports. In order to do this, Manston has no obvious geographic or operational advantages and York Aviation suggest that Manston's only lever for attracting traffic would be price (paragraph 7.15). Given that York Aviation estimate that the current capability of the airport already significantly exceeds RSP's forecast operation, RSP's assertion that £100 million would be spent immediately as an "initial phase to bring the airport into use" (Funding Statement paragraph 15) is not credible.

7.24 York Aviation review a submission on viability which was made on behalf of RSP to the planning inquiry into the Lothian Shelf proposals for buildings 1-4 at Manston Airport in 2017. Serious doubt is cast upon the step by step assumptions made by RSP.

7.25 Fundamental to any business case is the robustness of the Azimuth forecasts – if they fall away, any claimed business case simply evaporates. Even on the assumption that Azimuth are correct, however, York Aviation demonstrate that the re-opened airport could not expect to achieve a net operating profit at any time within its first 15 years. When provision is then made for the repayment of the

[26] Appendix 3, page 42 and paragraph 4.11

proposed investment, the analysis suggests that the cumulative cash position would still be £222 million negative in year 20. Given that from RSP's own words there is only a "bare possibility" of their forecasts being exceeded, this would represent the best possible financial outcome. No informed investor would ever invest on that basis.

7.26 York Aviation calculate that for a relevant rate of return to be generated, landing charges at the airport would need to be very substantially increased to a level of around £18 per workload unit. This compares with £2.80 at East Midlands and £5.10 at Stansted. In other words, charges would have to be so high that it would render Manston completely un-competitive.

7.27 As summarised in its conclusions to section 5 (paragraphs 7.38-7.41), the York Aviation analysis clearly shows that the RSP proposals for Manston Airport are not commercially viable even based on their unreasonably optimistic traffic 'forecasts'. Based on any realistic scenario, the financial position of the Airport would be even worse.

8 Compelling case in the public interest?

8.1 Section 122 of the Planning Act 2008 provides that a Development Consent Order may only authorise compulsory acquisition if the Secretary of State is satisfied that:

- the land is required for the development to which the consent relates, and
- there is a compelling case in the public interest for the Compulsory Acquisition

8.2 These are deliberately stringent tests for any DCO application but this application is unique. No other DCO has attempted to use powers of compulsory acquisition to secure effectively the whole of the application site from another land owner.

8.3 SHP's concerns will be readily apparent from the earlier sections of these representations. They can, however, be summarised using the headings provided by RSP in its Statement of Reasons, where RSP set out its case that there is a compelling case in the public interest for the acquisition of the land. Those headings are taken in turn.

The proposed development would encourage future trade growth by helping to address the urgent need for additional airport capacity in the south-east of England

8.4 These representations have established that there is no urgent need for additional freight airport capacity in the south-east of England which has not already been addressed by up to date government policy.

8.5 It is notable that the Statement of Reasons (paragraphs 4.16-4.19) relies for its assertion of urgent need on the conclusions of the Airports Commission, which reported in 2015. No reference is made to the fact that those conclusions resulted in the designation of the Airports NPS and its confirmation of support for the construction of a third runway at Heathrow Airport. The significance of that policy step in undermining RSP's case cannot be over-stated. In particular:

- the Airport's NPS confirms (at para 3.73) that the Government has made this decision to respond to the recognised need for increased capacity for passenger and freight operations in the south-east. The new runway at Heathrow is said to deliver the greatest support for freight with plans for a doubling of freight capacity at the airport;
- York Aviation estimate that the doubling of freight capacity at Heathrow would allow for at least 31 years of extrapolated growth of future air cargo[27].

8.6 The updated reports from York Aviation and Altitude Aviation identify spare capacity at the UK's current freight airports, together with confirmed plans for growth in capacity at other airports in the south-east. The "*urgent need*" on which RSP's case is based does not exist.

The proposed development would bring substantial socio-economic benefits both locally and nationally

8.7 RSP's proposals are considered to be neither viable nor deliverable. In that case, no benefits would derive from an approval of the DCO and there would be no public benefits to weigh against the private loss to SHP in accordance with paragraph 14 of the Guidance. RSP's claimed socio economic benefits

[27] Appendix 3 paragraph 2.14

are examined in the updated York Aviation report from paragraph 3.53. That analysis demonstrates that the claimed employment and economic benefits have been substantially over estimated, even if Azimuth's growth forecasts were accepted.

8.8 Just as importantly, York Aviation's analysis demonstrates that RSP's ambitions for the airport could only ever be achieved if Manston was successful in competing against other better placed UK airports which have existing capacity. The forecasts from Azimuth estimate that Manston would achieve more than 17,000 ATMs in year 20, which represents more than a 30% share of the UK freighter market. Against the background of long-term decline in freighter activity, even the claimed benefits could only be achieved at the expense of other airports and would not amount to net benefits to the UK economy.

8.9 In any balance of benefits, dis-benefits also need to be taken into account. In this case, the evidence set out in section 4 of these representations is clear, the sterilisation of the airport caused by RSP's application is already generating significant adverse public benefits by frustrating proposals to bring forward large-scale mixed use, residential-led development to meet a pressing housing need in Thanet. The non-availability of the airport site to the local plan process has caused the District Council to propose allocations on substantial green field sites of high agricultural value in less sustainable locations.

8.10 No benefits would be derived from approval of the DCO application – instead, substantial public dis-benefit would arise.

Development of the site as an airport is the only viable use for it

8.11 This assertion is directly disputed by SHP. **Appendix 6** to these representations demonstrates that Manston Airport has a positive commercial value for a range of alternative uses.

8.12 More particularly, **Appendix 3** demonstrates that SHP has advanced serious, high quality, deliverable proposals for large-scale mixed-use development at the airfield, led by experienced development partners and supported by the submission of a detailed viability appraisal to the District Council.

The project would safeguard a valuable and significant national asset from being otherwise lost and provide the UK with modern air cargo customs facilities

8.13 The evidence identifies that there is no shortage of air cargo facilities in the UK and a substantial planned addition to the UK's assets has been endorsed by Government in the Airports NPS in a far more valuable and economically beneficial location. In addition, there are substantial expansion plans at other airports that are far better placed to serve the needs of the cargo market.

8.14 Equally, the evidence of York Aviation and Altitude Aviation identifies that there are a number of alternatives to Manston to meet the UK's air freight requirements into the longer term (**Appendix 5** paragraphs 51-55 and paragraph 109 plus **Appendix 4**, paragraph 2.22).

8.15 Neither is there any likelihood that the application proposals will actually provide the UK with modern air cargo customs facilities. No funding has been demonstrated to bring forward these proposals and there is no evidence that the proposals are viable or deliverable.

Other Matters

8.16 Section 7 of SHP's Relevant Representations ("Failure to Justify Compulsory Acquisition") set out a number of other issues that are relevant for the Examination. These include, the failure to give proper consideration to alternatives, RSP's failures to make reasonable attempts to acquire land by negotiation in line with the standard reasonably required by the Guidance, the failure to provide the required explanation and justification of the works comprising its proposed development and other matters (e.g. Crichel Downs considerations).

Conclusion

8.17 Whilst the onus is on RSP to demonstrate its compelling case, all of the available evidence indicates very strongly that there is no case at all for the grant of DCO consent or for the use of compulsory acquisition powers.

STONE HILL PARK LTD – WRITTEN REPRESENTATIONS TO MANSTON DCO

PINS APPLICATION REFERENCE: TR020002

APPENDIX 1: REBUTTAL OF NSIP JUSTIFICATION

1. INTRODUCTION AND EXECUTIVE SUMMARY

1.1 The purpose of this paper is to provide evidence to the examination that addresses the claims made by RSP in its NSIP Justification paper (Examination Library Reference APP-008 as amended at Deadline 1).

1.2 RSP's NSIP Justification sets out its position as to why it considers the Manston Airport project to a be a nationally significant infrastructure project ("NSIP") that requires consent under the Planning Act 2008 ("PA2008"), and why the development not forming the NSIP or part of the NSIP can be included in the Application as "associated development".

1.3 This response is further to and supplements earlier letters to the Planning Inspectorate dated 11 October 2017, 13 November 2017, 15 December 2017, 27 March 2018 and 16 July 2018 that were included as appendices 7, 8, 10, 14, 17 (plus 18) to Stone Hill Park's relevant representations (RR-1601). In summary, this paper demonstrates the following;

1.3.1 The Application proposes to use and develop an airport as an airport. DCO powers are not necessary for this purpose.

1.3.2 There are a variety of crucial errors in RSP's NSIP justification and approach, all of which, when rectified demonstrate that the current facilities at the Manston Airport site **do have** a current capability (in development control terms). RSP is factually wrong in asserting that the current capability is zero.

1.3.3 RSP has made fundamental legal and assessment errors in its Application. The Environmental Impact Assessment (EIA) accompanying the Application does not assess the development for which RSP is seeking consent – an uncapped airport operation with a capability of handling c. 83,220 freight air transport movements ("ATMs") per annum. Either the EIA is fundamentally flawed or requirements are necessary to limit the capacity and the capability of the airport – the effect of this would be that the DCO does not, in fact, propose any increment above the airport's existing capability.

1.3.4 Further, in order to fall within the Planning Act 2008 (the "PA2008"), RSP must demonstrate that its proposed airport alteration falls within the meaning of s23(4). The wording of the PA2008 is clear that an alteration to an airport is only within section 23(4) if it "***is expected to have*** *the effect specified*" (emphasis added). It is not adequate to satisfy s23(4) and s23(5) for there to be a "bare possibility" of an effect – the alteration must be "**expected to have**" the effect. If the likely effect assessed for the ES is correct and is properly the effect that the alteration is expected to have, the correct figure for the purposes of s23(4) and s23(5) cannot be 83,220 ATMs, as by the Applicant's own reasoning, the alteration is **not** "*expected to have"* that effect..

1.3.5 RSP has clearly erred by including a number of works items within NSIP development that do not satisfy the required criteria under s23 of the PA2008. In addition, RSP has mis-directed itself in principle in relation to the appropriate tests for associated development;

1.3.6 The nature, scale and type of development purported to be associated development within RSP's Application do not satisfy the core principles in DCLG's "*Guidance on associated development for major infrastructure projects"* (April 2013) ("AD Guidance"), and, in the main, are completely without precedent in DCOs that have been recommended for approval, or approved by, the Secretary of State and require the closest scrutiny.

2. CAPABILITY OF THE AIRPORT SITE

2.1 As noted above, SHP fundamentally disagrees with the reasoning set out in in RSP's NSIP Justification paper. SHP also disagrees with the Planning Inspectorate's conclusions in its Acceptance of the Application that the draft DCO *"includes development for which development consent is required".*

2.2 The importance of this is difficult to over-state. Essentially, the DCO Application proposes the development and use of an airport as an airport. Both superficially and with the benefit of more detailed examination, the proposed development does not meet the threshold requirements for a DCO application. If that is the case, granting DCO consent and giving effect to the wide ranging statutory powers it confers would not be lawful.

2.3 It is appreciated that the Planning Inspectorate considered this issue at the Acceptance stage, having raised serious concerns on this very same point in respect of RSP's earlier application, which RSP then withdrew. In the meeting note of 11 May 2018, the Planning Inspectorate provided the following advice to the Applicant;

"The Inspectorate considers that if the current capability is anything other than zero to 7,171 ATMs, the effect of the Proposed Development could not be expected to have the effect of increasing ATMs by at least 10,000 movements."

2.4 The decision to accept the subsequent application (i.e. the Application) under s55 of the PA2008 was based purely on the material contained within the Application which RSP declined to allow to be made public. No party, including SHP, therefore had the opportunity to comment upon RSP's revised NSIP Justification prior to Acceptance. Unlike many classes of NSIPs, the threshold under s23 of the PA2008 requires an assessment of the site's current capability, which must be tested and examined and reported to the Secretary of State. Given SHP is the owner of this airfield known as Manston Airport and therefore has the necessary insight into the facilities and infrastructure at the airfield, it is clearly wholly reasonable for the Examining Authority to hear from the owner, SHP, as to its views on the NSIP Justification paper and to take these into account.

2.5 The issue is clearly of primary importance as it goes to the legitimacy and lawfulness of the DCO Application and the Examination process itself. The issue warrants the closest examination. Such an approach would be consistent with the section 51 advice provided by the Inspectorate to SHP, following Mr Macnamara's complaint on behalf of SHP that the Application had not been made public and the prejudicial position it placed SHP. The Inspectorate in response to this request made it clear that although they would not publish the Application, SHP would nevertheless be able to make a Relevant Representation at the appropriate time if the Application was accepted (per PINS s51 advice to SHP published on 20 April 2018). In such an instance, SHP would then finally see what RSP had in fact submitted to justify its case that the proposed development met the s23 tests and the Relevant Representation and subsequent evidence to the Examination would allow for a response and further testing and consideration with all evidence and submissions then taken equally into account.

3. CURRENT CAPABILITY OF THE AIRPORT

3.1 RSP's claims regarding current capability are set out paragraphs 8 - 17 of its NSIP Justification paper. RSP claims that current capability is zero on the basis planning permission would be required for development to either replace, re-establish or introduce infrastructure for the first time and there is an absence of an operator who has an EASA certificate.

3.2 As set out in the note from Pinsent Masons LLP dated 16 July 2018 (referred to in Paragraph 1.3 above), RSP is incorrect as a matter of law to start from this apparent assertion or assumption that the Manston Airport site must somehow formally be brought back into use as an airport in order to have a baseline capability.

3.3 In planning law terms, as already set out in previous responses, there is an existing lawful use certificate (reference CD/TH/99/0377) which confirms the lawful status of the Manston Airport site for civil aviation use, with no caps or limits on ATMs during the day, and with regulation of night flights via a s.106 mechanism. The fact that the Manston Airport site is not currently in operation does not detract in any way from its existing certificate of lawfulness. The lawful planning use has neither been abandoned nor brought to an end by any other means or operation of law. The Manston Airport site is therefore still a civilian airfield

– the runway, taxiways, aprons, cargo sheds, control tower, fire station, perimeter fencing and related infrastructure are still in place and capable of lawful use as a civilian airport.

3.4 For completeness, the fact that there is no current aerodrome certificate does not affect the lawful use in planning law terms. Certification is a separate regulatory procedure, and is not a land use or development control process. It is a standalone requirement, which applies equally to RSP's proposals, which do not have a certificate at present. The development proposed in the DCO is predicated on the assumption that a new certificate be sought and issued to a new operator by the CAA. The EASA Certification Process is undertaken on a risk assessment basis rather than a rigid adherence to the defined standards. It is considered reasonable to assume that certification could be achieved based on previous operational standards, subject to the submission of a safety case, as it can clearly be demonstrated that the Airport was able to operate safely when previously in use. Prima facie, the capability would be the same as when the Airport was previously operational.

3.5 The approach taken by RSP is wrong in principle as well as in its application in relation to its submissions as to the role of independent regulatory/licensing processes in determining the capability of an airport in development control terms. The simple issue of the existence of an EASA Certificate or other aerodrome licence is not determinative of the capability (in lawful planning terms) of an existing airport.

3.6 We now turn to the existing capability of the airport. In July 2018, York Aviation prepared an update note which confirmed capability as being in the overall order of 21,000 ATMs (Appendix 18 of SHP's Relevant Representations (RR-1601)). This builds on York Aviation's previous Summary Report of November 2017 (see Appendix 4) which contained an assessment of the current capability of Manston Airport on the basis that the site has an existing Lawful Use as an aerodrome/airport and previously operated without limit on its activities, save in respect of limitations on regular night flying operations pending agreement to a Night-time Flying Policy with the local planning authority. The assessment was made on the basis that the facilities at the Airport necessary for the operation of air freight activity could be 'made good' without the necessity for further planning approval and assessed the overall capability as being of the order of 21,000 freighter aircraft movements a year (it should be noted that routine maintenance and repair is not development, and does not require planning permission. Account has only been taken of permitted development rights which are generally available, including for example the right to erect temporary contractor welfare cabins whilst work is ongoing or to create a temporary compound for contractors' equipment during construction).

3.7 A further inspection of the Manston Airport site was undertaken in July 2018 by York Aviation to assess the current condition of the facilities and what would be required to bring the Airport back into effective operational use and to deliver a capability for handling aircraft movements by freighter aircraft. In its conclusions, the report confirmed that a number in the order of 21,000 annual freighter ATMs represent a sensible and realistic assessment of capability of Manston. In summary this calculation was based on;

3.7.1 the combined freight and passenger aprons being able to accommodate 4 freighter aircraft simultaneously. This is ultimately the practical limiting factor in assessing the capability of the Airport (recognising the runway does not constitute any limitation on capability at the levels of usage contemplated nor do the planning constraints);

3.7.2 a variable mix of aircraft over the day so, at some times with small freighter aircraft in use, the aprons could accommodate 6 or more aircraft, whilst at other times of the day, when larger aircraft are in use, the limit on simultaneous use of the apron might only be 2 aircraft, giving a capability of 4 aircraft on average. Capability was based on 2½ hours average stand occupancy per movement, consistent with typical freighter operations in the UK, resulting in each aircraft stand having a capability of 7 aircraft turnarounds during the daytime hours (taken as 18 hours, leaving a 6 hour night curfew), equivalent to 14 aircraft movements a day.

3.7.3 RSP's own fleet mix (as set out in its noise assessment) confirms that the previous basis of assessing the capability of the Airport for freighter ATMs is reasonable in assuming an average simultaneous stand occupancy of 4 aircraft of mixed sizes (based on existing stands), giving a capability 56 freighter aircraft movements per day. This equates to 20,440 daytime freighter ATMs a year and, with a small allowance for some movements at night, of the order of 21,000 annual movements by freighter aircraft represents the capability of the Airport.

3.7.4 To the extent that fleet mix included a greater number of large aircraft, the capability could be lower but, in any event, no less than 10,220 annual freighter ATMs. Equally, there could be a

greater proportion of freighter ATMs by the smaller aircraft types and, on this basis, the capability could be of the order of 30,000 annual ATMs. This is consistent with the arguments made by RSP;

3.7.5 On balance, a figure of 21,000 annual movements by freighter aircraft would represent a sensible and realistic assessment of capability of Manston.

3.8 It is noted that many of the assumptions used in York Aviation's assessment are consistent with RSP's NSIP Justification. For example, RSP's aviation expert advice adopts similar methodology in calculating level of ATMs that can be handled. The slightly lower number of movements per stand per day appears to be due to numbers being assessed on a *"conservative basis"* as outlined in Paragraph 22 of its NSIP Justification and RSP's failure to assess additional capability relating to the provision of night flights.

3.9 In its NSIP Justification, RSP has claimed that current capability is zero on the basis (i) planning permission would be required for development to either replace, re-establish or introduce infrastructure for the first time and (ii) there is an absence of an operator who has an EASA certificate. We have demonstrated above how both arguments do not apply, and now address below each of the four specific infrastructure shortcomings cited by RSP and demonstrate why they are not, in practice, shortcomings at all. In its NSIP Justification, RSP claimed the following infrastructure items are *"currently missing or unusable at the airport and would require planning permission"*.

3.9.1 A Fire Station: the fire station is claimed by RSP to be dilapidated and without a roof. The roof is intact, contrary to what is stated in the NSIP Justification Statement. The existence of the roof is confirmed in RSP's Design and Access Statement at para 3.03. Whilst the Fire Station equipment has been removed, internal fixtures and fittings do not require planning permission to reinstate, as internal fit-out is not "development". The doors to extent needed, would require replacement, but these could easily be re-instated to be brought back into use and cannot reasonably be viewed as an impediment to the airport having a lawful capability;

3.9.2 Radar: there is no requirement for a radar to be provided on site – whilst the radar could easily be refitted to the existing tower, options exist for radar feed to be provided by other airports, which would not require any development. Manston previously supplied a radar service to Southend Airport and the cabling is still in place. Southend Airport now has its own upgraded radar installed since 2011 and could supply the necessary radar service to Manston without the need for an on-site radar.

3.9.3 Air Traffic Control: the previous Air Traffic Control Tower was sufficient for the previous level of operation and would not have to be demolished and rebuilt. There is no impediment to this being re-equipped (as above, internal fit-out does not require planning permission as it is not "development") and made operable again without the need for planning permission.

3.9.4 A Fuel Farm: there is no requirement at all in planning or operational terms for there to be an onsite fuel farm. If the current fuel farm is not fit for purpose after a period of disuse, there is no reason why fuel supplies could not be hosted off site. This is an option that the Environment Agency specifically requested that RSP should consider as part of the pre-application consultation and is clearly not therefore a bar to the airport having a capability. Furthermore, it is completely contradictory for RSP to argue on the one hand that capability without an on-site fuel farm is zero, yet on the other hand acknowledge further on its NSIP Justification that the fuel farm is not integral to the NSIP (i.e. rather it is set out as associated development in Paragraph 44 of the NSIP Justification).

3.10 It is also important to bring to the Examining Authority's attention that in its initial NSIP Justification paper sent with BDB's letter of 5 March 2018 (and appended as Appendix 1(a)), RSP stated that if they were wrong in claiming currently capability of the airport was zero, then it would be somewhere between 7,300 and 14,600 cargo ATMs. RSP claimed that even if it was wrong, its project would still qualify as an NSIP as it had a capability of 83,220. It is only after being given clear advice by the Planning Inspectorate (as set out in Paragraph 2.3 above) that if *"current capability is anything other than zero to 7,171 ATMs"* it would not meet the s.23 criteria, that RSP revised its NSIP Justification to remove analysis of previous capability and focus its arguments on current capability being zero.

3.11 Even if RSP's flawed claim regarding the fire station having no roof was accurate, which it is not, would this in itself be sufficient to render the airport as having zero capability? If this interpretation were to hold, the

owner of the airport would be required to seek development consent under s31 of the PA2008 for the sole purpose of replacing the roof or the doors of the fire station. Failure to do so, and all that entails, would constitute an offence under s.160. It is clearly nonsensical to claim that a fire station roof would give the effect of increasing the airport's capability.

3.12 It is very difficult to escape the conclusion that the DCO application is an artificial construct, abusing the DCO process to attempt to secure control of the Manston Airport site through compulsory acquisition. It is important to note that the DCO process was only instigated after RSP's predecessor and former prospective applicant, Riveroak Investment Corporation LLC ("**RIC**"), failed to satisfy Thanet District Council ("**TDC**") that it fulfilled the requirements for a suitable indemnity partner for a compulsory purchase process. For background, following the airport's closure in May 2014, TDC embarked on a process to try to find indemnity partners in order to help fund a potential compulsorily acquisition or acquisition by agreement of the Airport and then to re-commence airport operations. This process included detailed consideration of RIC, however, TDC's cabinet decided on two occasions (in December 2014 and in October 2015), to take no further action to progress with compulsory purchase action for the Airport as they concluded they could not identify a credible indemnity partner who could demonstrate a viable and deliverable plan for airport operations to re-commence. It was only subsequent to this that TDC commissioned its own independent evidence from AviaSolutions that concluded aviation at Manston is highly unlikely be viable.

3.13 In summary, there are a variety of crucial errors in RSP's NSIP justification and approach, all of which, when rectified demonstrate that the current facilities at the Manston Airport site **do have** a current capability (in development control terms), which in turn means that the proposed development, on RSP's own terms, cannot be classified as an NSIP. RSP is factually wrong in asserting that the current capability is zero.

3.14 All of these matters are clearly important and relevant to the decision in respect of this purported DCO. Failure to hear from the owner of the airfield and simply rely on RSP's own assertions in its Application on this most important of points, would be prejudicial and procedurally unfair.

4. CAPABILITY AND ENVIRONMENTAL ASSESSMENT

4.1 SHP considers that the detail of the RSP scheme description needs to be examined forensically with all representations taken into account.

4.2 For the purposes of seeking to justify the proposed development as an NSIP, RSP asserts that the effect of the proposed development is to increase Manston Airport's capability from zero freight ATMs to 83,220 freight ATMs, and that this should be the description of the development that is used for the purpose of judging whether the Application has any place in examination under the PA2008.

4.3 It is not disputed by SHP that the physical capability of RSP's plans of 83,220 ATMs (plus an, as yet, unquantified amount for night flights that could add a further 3,500-4,000 ATMs per York Aviation report) would satisfy the requirements of the s23(5)(b) of the PA2008, subject to there being no cap on the number of ATMs. However, the Environmental Impact Assessment (EIA) accompanying the Application does not assess the development for which RSP is seeking consent – an uncapped airport operation with a capability of handling up to 83,220 freight ATMs per annum.

4.4 Paragraph 10 of Annex 1 of RSP's NSIP Justification paper states that "*Environmental impact assessment is of likely significant environmental effects, and is therefore of the Proposed Development's projected use [*sic]*(up to that which is more than a bare possibility) rather than its theoretical capability. Furthermore, the airport could operate at a greater number of flights while remaining within the impacts that have been environmentally assessed*."

4.5 There are two fundamental legal and assessment errors in this worrying statement:

4.5.1 First, Regulation 14 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 ("**EIA Regulations**") requires that the ES must include "*a description of the likely significant effects of the proposed development...*". The Regulation is clear, an applicant has to assess the likely significant effects of the development being applied for, which in this instance is 83,220 freight ATMs per annum (the figure RSP claims is the "effect" of its proposed development). RSP is trying to claim that Regulation 14 allows an applicant to only assess the "likely" proposed development. If this were the case, then the Regulation would have expressly referred to the "*likely significant effects of the likely proposed development...*". It clearly does not. Further, in order to fall within the PA2008, RSP must demonstrate that its proposed airport

alteration falls within the meaning of s23(4). The wording of the PA2008 is clear that an alteration to an airport is only within section 23(4) if it "***is expected to have*** *the effect specified*" (emphasis added). It is not adequate to satisfy s23(4) and s23(5) for there to be a "bare possibility" of an effect – the alteration must be "**expected to have**" the effect. If the likely effect assessed for the ES is correct and is properly the effect that the alteration is expected to have, the correct figure for the purposes of s23(4) and s23(5) cannot be 83,220, as by the Applicant's own reasoning, the alteration is **not** "*expected to have"* that effect.

4.5.2 Second, as to the last sentence in Paragraph 10 of Annex 1 to the NSIP Justification, how can the Examining Authority and the Secretary of State have any degree of certainty that the airport "*could operate at a greater number of flights while remaining within the impacts that have been environmentally assessed*" without this even being assessed? The ES does not provide any evidential basis for this conclusion.

4.5.3 An obvious step would be to impose a cap on the use of the airport consistent with the number of flights assessed within the DCO ES. The effect of that, of course, would be to remove the very large majority of the additional capability which the applicants claim, making it impossible to claim any increment in capability above that which already exists.

4.6 The propositions in Paragraph 10 of Annex 1 of RSP's NSIP Justification paper are not only flawed, but wrong in law. On the one hand, RSP is trying to use the 83,220 freight ATMs figure to its advantage to argue that the proposed development meets s23 of the PA2008 and on the other hand RSP seeks to conveniently reduce the "expected" ATM figure for EIA purposes by inserting another "likely" in Regulation 14.

4.7 Furthermore, the comparison made in Paragraph 30 of the NSIP Justification paper to a highway project in order to justify the failure to include a cap is also deeply flawed. Unlike s23, where an applicant must demonstrate that its project will have the effect of increasing capability by certain minimum amounts, there are no such tests under s22 of PA2008.

4.8 As can be seen, RSP is flipping between two arguments to suit its case. This cannot be allowed to continue and RSP must be made to explain its position once and for all, which can only be:

4.8.1 amend the proposed development so that its effect is to restrict the number of freight ATMs to 17,170 ATMs (although such an amendment would not satisfy the requirements of s.23 as it would not have the effect of increasing, by at least 10,000 per year, the number of air transport movements of cargo aircraft for which the airport is capable of providing air cargo transport services); or

4.8.2 assess under the EIA Regulations 83,220 ATMs which would require further assessment and environmental information and to be fully consulted upon, and demonstrate that such traffic levels can be properly regarded to be "expected" within the meaning of section 23(4) and 23(5) rather than having a "bare possibility".

4.9 In addition, this RSP statement that the assessment is of projected use "*up to that which is more than a bare possibility*" appears to acknowledge that RSP's 17,170 ATM forecast is no more than a "bare possibility" rather than a robust and credible forecast in any event. This in itself, as asserted above, calls into question RSP, and indeed the Secretary of State, relying on the 83,220 ATM figure as the reason why the RSP proposal meets the s23 tests.

4.10 Clearly, this also needs to be thoroughly examined and robustly tested early in the Examination.

5. NSIP AND ASSOCIATED DEVELOPMENT

5.1 RSP has provided no justification for why each element of Work Numbers 1-11 are considered to be part of the purported NSIP (or Work No.13, which has been added to this list at the Deadline 1 submission).

5.2 Even on the most favourable interpretation of the PA2008, the following works could not possibly be considered as part of creating the requisite "effect" referred to in s23(5)(b) which is *"to increase by at least 10,000 per year the number of air transport movements of cargo aircraft for which the airport is capable of providing air cargo transport services";*

5.2.1 Work No. 2: "*construction of eight light and business aircraft hangars and associated fixed based operator terminal*". Under any plausible interpretation, these works would have no effect on the freight ATM capability;

5.2.2 Work No.10: *"The construction and rehabilitation of pavements for the creation of 3 Code C aircraft parking stands and associated pavement and infrastructure."* As explained in the Environmental Statement (APP-033), these works relate to the proposed aircraft recycling operations and would have no effect on the freight ATM capability set out in RSP's Application;

5.2.3 Work No.11: *"The construction and rehabilitation of pavements for the creation of 4 Code C aircraft parking stands and associated pavement and infrastructure."* These works relate to proposed passenger operations and therefore, unless used for freighters (which would increase the capability further beyond 83,220 freight ATMs), would have no effect on the freight ATM capability set out in RSP's Application.

5.2.4 Works No. 13: *"the construction of a new airport fire station and associated storage areas".* RSP has wrongly asserted that the existing fire station has no roof and would need to be replaced. As set out in Paragraph 3.9.1 above the fire station has a roof and could be re-instated and brought back into use. The discretionary choice of RSP to construct a new fire station would not, in itself, have any effect on the freight ATM capability. It is also noted that the Applicant had previously listed these works as associated development prior to reclassifying it as NSIP development in its updated NSIP Justification submitted at Deadline 1, but has provided no justification for this change.

5.3 It is also unclear how the works in Work No. 1 ("airside cargo facilities and ancillary offices with a total combined cargo and office footprint of 65,500m^2) could be argued to be NSIP development. In order to satisfy the criteria for NSIP development under s23 of the PA2008, the development must have the effect of increasing capability of freight air traffic movements. As demonstrated in Paragraphs 5.4 and 5.5 below, RSP's own application documents completely undermine RSP's case that these works satisfy the tests required for NSIP development.

5.4 Firstly, RSP's explanation in Paragraph 21 of the NSIP Justification (extract below) is unequivocal;

"As the threshold in the Planning Act 2008 is for cargo movements rather than tonnage of cargo, the ability to handle substantial quantities of cargo is not relevant to capability, as it is only the ability to handle the safe throughput of cargo aircraft that affects the threshold, although air cargo transport services must be provided. Thus the size of handling facilities, as long as they will exist, and the capacity of the surrounding road network do not constrain the number of flights."

5.5 Secondly, in Volume 1 of RSP's Environmental Statement (APP-033), RSP confirms that the existing buildings include cargo handling facilities (Paragraph 3.2.2) and that it would be RSP's intention to retain these facilities until Phase 3 (Paragraph 3.3.37).

5.6 Therefore, in its own application documents, RSP has clearly accepted that (i) cargo handling facilities currently exist, and (ii) the size of these handling facilities is not relevant to capability – the only requirement is for them to exist. This contradicts RSP's assertion in Paragraph 43 of the NSIP Justification that Work No.1 is NSIP development, rather than associated development.

5.7 In its application documents, RSP had provided no evidence of the need for the wide ranging associated development proposed (let alone made it clear why some development is not treated as associated development but part of the NSIP). In its Deadline 1 Submission, the Applicant submitted an amended NSIP Justification that included some additional commentary on associated development, but could in no way be interpreted as justifying the nature, type and scale of associated development sought.

5.8 In its NSIP Justification, RSP has included within associated development works in relation the airside cargo facilities, passenger terminal facility, substantial employment floorspace and facilities (described as "*airport-related commercial facilities*"), a fuel farm, a flight training school and aircraft recycling facility located both within the Airport's operational boundary and outside the Airport on the land referred to as the "Northern Grass".

5.9 A clear case needs to be established for each element of development proposed (i.e. works that are purported to be NSIP and associated development), and RSP has not done so. Paragraph 10 of the AD

Guidance requires that "*10. As far as practicable, applicants should explain in their explanatory memorandum which parts (if any) of their proposal are associated development* ***and why***". With regard to any development that is claimed to be associated development, this case should clearly set out how each element complies with each of the following core principles set out in the AD Guidance;

5.9.1 The definition of associated development requires a direct relationship between associated development and the principal development. Associated development should therefore either support the construction or operation of the principal development, or help address its impacts.

5.9.2 Associated development should not be an aim in itself but should be subordinate to the principal development.

5.9.3 Development should not be treated as associated development if it is only necessary as a source of additional revenue for the applicant, in order to cross-subsidise the cost of the principal development.

5.9.4 Associated development should be proportionate to the nature and scale of the principal development.

5.10 Examples of the type of development that may qualify as associated development are provided in Annexes A and B of the AD Guidance. Annex A gives 4 general types of associated development being; (i) Access arrangements; (ii) Connections to national, regional or local networks; (iii) Developments undertaken for the purpose of addressing impacts; and (iv) Other works (none of which give examples of commercial development of the sort proposed by the applicant). Annex B provides specific examples of associated development relating to different types of infrastructure projects and it is noted that the example given for Airports is *"Freight distribution centre, including freight forwarding and temporary storage facilities",* which clearly has a direct relationship with the principal development (this would appear most applicable to works in Work No.1). Nowhere in the AD Guidance is there included a category for unspecified commercial development of the sort proposed by RSP.

5.11 A review of all DCO projects listed on the Planning Inspectorate's website has been unable to identify any precedent for the breadth, nature, scale and type of associated development proposed by the Applicant, or any circumstances where anything remotely comparable has been recommended for approval or authorised by the Secretary of State. It appears clear that the Applicant is using its proposed project to attempt to effect a land grab.

5.12 In its updated NSIP Justification provided at Deadline 1, the Applicant makes a number of statements as to how the development in the Northern Grass area (Works 15 -17) comply with the associated development principles. We have provided extracts below from RSP's NSIP Justification, together with our comments thereon;

5.13 NSIP Justification: Para 46 a. *"The definition of associated development…requires a direct relationship between associated development and the principal development. Associated development should therefore either support the construction or operation of the principal development, or help address its impacts". It should be noted that neither the guidance nor the statutory provision in s.115 PA 2008 state that the associated development must be 'required' or necessary to support the operation of the principal development, rather that it should support its operation. The development proposed on the Northern Grass will undoubtedly support the operation of the airport. They will comprise airport related development in use classes B1 (offices, research and development, light industry) and B8 (storage and distribution). A paper setting out the history and proposed use of the Northern Grass is attached at Annex 4."*

5.13.1 The Applicant appears to acknowledge that the Works 15-17 are neither required nor necessary to support the operation of the principal development. Instead it simply claims that the development of B1 and B8 use classes on the Northern Grass will *"support the operation of the airport"*, which is not the same thing. There is no justification provided by the Applicant. The Applicant is trying to argue that in order for development to qualify as associated development, it need only support generic airport operations and does not require a direct relationship with the principal development (i.e. development that has the effect of increasing capability of freight air traffic movements). This is clearly not what is intended under the PA2008. Neither is the previous history of the Northern Grass relevant to the new development which is now proposed and its relationship to the airport post alteration. It has never in its history been the airport that RSP now proposes it should become. There is no

evidence that development of type and scale proposed is needed to support the airport's operation.

5.14 NSIP Justification: Para 46 b. *"Associated development should not be an aim in itself but should be subordinate to the principal development." The Northern Grass development is not an aim in itself. Without the airport there could be no 'airport-related' development on the Northern Grass and there would be no purpose in the Applicant's application for it. Its purpose is to support the operation of the airport. As an example, Work No. 3(e) in the Hinkley Point C (Nuclear Generating Station) Order 2013 (SI 2013/648) is for sports pitches, something that will only exist because of the existence of the nuclear power station construction."*

5.14.1 Firstly, the Applicant repeats its error in stating that development need only be *"airport related"* rather than accepting the need for development to have a direct relationship to the principal development. "Airport related development" is the terminology used for the NSIP development in section 14 and section 23 of the PA2008 (and covers both the passenger and cargo criteria), it is not a blanket justification for inclusion of associated development. The Applicant goes further by stating that any development that would have no purpose if it were not for the *"airport"*, would meet the tests for associated development. Any acceptance of this deeply flawed argument would set dangerous precedents for what could be argued to qualify as associated development of any subsequent airport DCO, or any DCO for that matter.

5.14.2 Secondly, the Applicant has sought to use the example of Work 3 (e) at Hinkley Point as precedent. What the Applicant fails to explain is that there was a direct link between the need for construction of worker campuses and welfare facilities (including sports pitches) for the construction of that NSIP given the nature and proposed scale of that project. As the Examining Authority noted in its Report to the Secretary of State dated 12 December 2012 (see, as example, Paragraph 4.369), the campuses *"are an integral part of the Applicant's proposals for housing the workforce required to construct Hinkley Point C"*. Therefore it is clear that this development was not an *"aim in itself"* unlike the purported associated development in RSP's Application. It was directly linked to the principal development and was in compliance with examples given in Annex A of the Guidance (e.g. "*Other Works: Temporary accommodation for staff based on site to enable construction, operation or maintenance of the principal development"*). This is not the case for the business park that RSP is proposing in Works 15-17. The description of "authorised development" in the draft DCO is simply for "the construction of commercial facilities" within use class B8 and/or B1. There is no restriction in the DCO which would limit the development in any way. Any class B8 or class B1 use could occupy the space. It is a business park, not operational airport facilities,that are proposed.

5.15 *"NSIP Justification: Para 46 c. "Development should not be treated as associated development if it is only necessary as a source of additional revenue for the applicant, in order to cross-subsidise the costs of the principal development. This does not mean that the applicant cannot cross subsidise, but if part of a proposal is only necessary as a means of cross-subsidising the principal development that that part should not be treated as associated development." The Northern Grass is not simply a source of additional revenue to cross-subsidise the principal development. It would provide office and storage space for operators and users of the airport and thereby support its operation."*

5.15.1 The Applicant has failed to provide even the most basic information that would allow the Examining Authority and interested parties to assess and test whether the purported associated development has been included to cross-subsidise the principal development. Notwithstanding its conclusions regarding the lack of credibility of RSP's forecasts, Section 7 of York Aviation's 2019 Report (included as Appendix 4 to the written representations) goes further in demonstrating how the airport operations would be unviable, even if RSP were to perform in line with the wholly unrealistic forecasts for cargo and passenger operations. It is therefore of the utmost importance for the examination, that the Examining Authority requires the Applicant to provide detailed information of costing and revenue assumptions of the individual elements of its proposals.

5.16 NSIP Justification: Para 46 d. *"Associated development should be proportionate to the nature and scale of the principal development". The site area of the Northern Grass and proposed footprint of development is less than that of the principal development and the proposed development is entirely proportionate to the nature and scale of the principal development."*

5.16.1 Notwithstanding that many elements of the Applicant's proposal do not qualify as associated development, the scale of the associated development is clearly not proportionate to the nature and scale of the principal development. The table below provides an analysis of the footprint of the buildings proposed to be developed in phases 1 and 2, split between NSIP development and purported associated development (the latter category includes Works Numbers 1, 2 and 13 as they do not meet the required tests for NSIP development as explained in paragraphs 5.2 – 5.7). It is highly revealing that none of the c.141,350 m2 total building footprint would appear to qualify as NSIP development. It is also unclear how any of the buildings proposed for phases 3 and 4 could be considered to be NSIP development.

Construction Type	**Phase 1**	**Phase 2**	**Total**	**NSIP**	**Associated Development**
Work No.1: Cargo Facilities	12,000 m2	16,500 m2	28,500 m2		28,500 m2
Work No.2: Aircraft hangars	200 m2	400 m2	600 m2		600 m2
Work No.13 Fire Station	1,550 m2		1,550 m2		1,550 m2
Work No. 12: Passenger terminal	2,200 m2		2,200 m2		2,200 m2
Work no. 15-17: Northern Grass	55,000 m2	50,100 m2	105,100 m2		105,100 m2
Work No.18 Aircraft recycling		3,400 m2	3,400 m2		3,400 m2
Total				**0 m2**	**141,350 m2**

5.17 NSIP Justification: Para 47. *"The guidance explains that in most cases associated development will be typical of the development brought forward alongside the principal development. Satellite airport-related development supports the operation of every commercial airport around the country and this is no different. Annex B to the guidance gives examples of associated development specific to individual types of major infrastructure projects. For airports, the only example given of associated development is "Freight distribution centre, including freight forwarding and temporary storage facilities". Offices and storage facilities for freight distribution, forwarding and storage is the very type of development proposed on the Northern Grass."*

5.17.1 It is acknowledged that development of facilities for freight distribution, forwarding and temporary storage could be capable of satisfying (in principle) the associated development test, as noted in the relevant AD Guidance. However, as explained in paragraph 4.22 of the York Aviation 2019 Report, in view of the structure of the freight forwarding model, there will be little requirement for the relocation of freight forwarding activity from adjacent to the UK's main cargo hub at Heathrow to Manston. Notwithstanding this, the applicant is seeking 105,100m2 of B1/B8 development on the Northern Grass area despite the fact that any freight and temporary storage facilities could easily be accommodated in works included in Work No.1. The Applicant advances absolutely no explanation or justification for the quantum of floorspace proposed, or any assessment of its impact on the Employment land supply for the rest of Thanet.

5.17.2 Section 6 of the York Aviation 2019 Report demonstrates why there can be no justification for this scale of development, providing relevant comparisons to the associated landside business park (Pegasus Business Park) at East Midlands airport and the proposed New Century Business Park proposed for land adjacent to Luton Airport. York Aviation has also challenged the list of potential activities and uses set out in Annex 4 to the updated NSIP Justification (please refer to Paragraph 6.35 onwards of the York Aviation report for further detail).

5.17.3 The amount of associated development proposed appears to be grossly and completely out of proportion to the principal development. There is no known precedent to justify this approach and the applicant should be put to the strongest tests of justification.

5.18 NSIP Justification: Para 48. *"The Applicant has included the Northern Grass associated development in the DCO application to ensure that it can be considered and controlled together with the principal development. The Applicant is of the view that it will be necessary to support the operation of the airport and in the circumstances that it is beneficial for it to be considered together with the application for the principal development."*

5.18.1 Firstly, it is worth noting that had the Applicant not included the purported Northern Grass associated development in the DCO application, it would have no basis for seeking powers of compulsory acquisition over the Northern Grass land.

5.18.2 RSP continues to err by claiming that the associated development need only support the operation of *"the airport"*, rather than the principal development. There appears to be a number of degrees of separation between the principal development and some of the purported activity that the Applicant claims could be included in Works 15 -17 in Annex 4 to its NSIP Justification (for example passenger airline and flight school accommodation – this is not associated at all with the freight airport alterations which comprise the purported NSIP). The Applicant's claim that it is beneficial for development on the Northern Grass to be considered together with the application, appears only to relate to its own interest in securing compulsory acquisition powers over the land. As the York Aviation 2019 Report clearly demonstrates, there is no need for this development.

5.18.3 Under the Applicant's logic, any applicant seeking development consent under s23(5)(b) to *"increase by at least 10,000 per year the number of air transport movements of cargo aircraft for which the airport is capable of providing air cargo transport services"*, would be entitled to include within its application, under the guise of associated development, any development it claimed would have a relationship to an airport (and not restricted to the principal development), no matter how tenuous the relationship. It would also follow that the applicant would be entitled to seek compulsory acquisition over that land in such circumstances. This is clearly not what is intended by the legislation and the relevant AD Guidance. Again, acceptance of the Applicant's arguments would set dangerous precedents for any subsequent airport DCO, or any DCO for that matter.

6. Comments on Annex 4 of NSIP Justification

6.1 The revised NSIP Justification submitted at Deadline 1 included a new Annex 4, which responded to the ExA's request for more detail about RSP's plans for the Northern Grass area. However, the Applicant has failed to provide any explanation and justification for all other elements of its proposal that it purports to be the NSIP and that which it considers to be associated development. This is despite RSP confirming (during the draft DCO hearing held on 10 January 2019) that it would provide as much information as possible by Deadline 1.

6.2 In summary, the Annex provides some background information on the history of the Northern Grass land, the *"type of activities and companies that are expected to use then proposed development"* and explains that the Applicant proposes to submit *"benchmarking evidence"* as part of its Deadline 3 submission. It is highly revealing that the Applicant has been unable to provide evidence to support its proposed scale of associated development with the application, or at Deadline 1, despite being fully aware of the universal scepticism applied to this extensive component of the application.

6.3 The Applicant's note on the history of the Northern Grass is not considered relevant and appears to be an attempt to justify the failure to properly consider any alternative sites for the purported associated development. In terms of history, it is recognised that the Northern Grass area was the location of the

original grass runway, which was made redundant when the main runway was built to the south of the A2050 during WWII. However, after the MOD sold the airport and site to Wiggins in 1998, the Northern Grass area was principally used for locating the radar tower and fuel farm and the majority of the area has been grassland.

6.4 In Paragraph 10, the Applicant also makes reference to the 2006 local plan, yet fails to explain that the new local plan (submitted for examination in Spring 2019) explicitly removes Policy EC4, which restricts use on the Northern Grass and airport site to aviation only uses. It is important that the examination is aware that the TDC Councillors were given clear legal advice that it would be unlawful to retain this policy protection, as it was not supported by the Council's independent evidence base (AviaSolutions) which deemed aviation use highly unlikely to be viable. It is also of note that TDC's officers consistently recommended that the new local plan should allocate the site for mixed use development (as further explained in the Avison Young (formerly GVA) case for housing – Appendix 3).

6.5 That the land remains in the same ownership as the main site or, that there is a historic local plan policy (that is being replaced as it runs contrary to the Council's up to date evidence base), does not set a clear functional precedent nor does it provide any justification for RSP's proposed use of the Northern Grass area.

6.6 The Applicant appears to be seeking to find justification after the event, this time to cover for its failure to give any consideration to alternative sites within the vicinity of the airport. Indeed, the Applicant completely failed to acknowledge or adequately address material comments from Thanet District Council (in its response to the 2018 consultation – see page 320 and 321 of the Consultation Report) regarding the need for the land or the failure to consider alternative sites that were available. The Council commented, *"[T]he proposed commercial development on the northern grass does not appear to be functionally required for operational purposes of the airport and should not form part of the Proposed Development's viability assessment. This development could be situated on allocated employment land within the district, such as Manston Business Park."* We would note that Manston Business Park is located in very close proximity to the airport site.

6.7 Paragraphs 6.35 – 6.37 of the York Aviation 2019 Report make the following comments on both the list of activities that RSP expect in the B1/B8 development on the Northern Grass (Paragraph 14 of Annex 4) and the scale of development proposed;.

"However, this list appears to comprise not of airport-related businesses needing a landside location but of a mixture of essential airport facilities which would need to be located within the zone to the south of the B2050, e.g. airline crew offices, offices for Border Force, flight briefing facilities and facilities, garages for airside transport given that vehicles will typically not be licensed for the public highway, and those which do not appear relevant to the proposed use of Manston, e.g. airport taxi garages, covered valet parking, catering for passenger and business aviation flights. There remains a complete absence of any justification for the totality of the development proposed in this landside area save that RSP has indicated that it "will seek to provide to the Examining Authority further examples of this type of airport-related development from other UK airports and important cargo led airports in Europe and North America."

Taking into account the projections for Manston upon which RSP seek to base their case, the most relevant comparator remains EMA in the UK. East Midlands Airport has an associated landside business park, Pegasus Business Park comprised of c.52,000m2 of accommodation. However, of this c.16,000m2 is comprised of 3 hotels associated with 4.9 million passengers using the Airport in 2018. Of course, hotels do not form part of the proposed used for the Northern Grass at Manston and, in any event, there is ample local supply in Ramsgate and Margate, as well as the Holiday Inn Express at Minster adjacent to the Airport, for any usage associated with the significantly lower volume of passengers projected by RSP. Of the remaining 36,000m2 at EMA's Pegasus Business Park, many of the premises are vacant or occupied by non-airport related tenants amounting to around 23,000m2, based on an examination on Google Earth. The proximity to the M1 and a location in the centre of the 3 East Midlands cities makes the site attractive to a broader range of non-aviation related business seeking proximity to the motorway. This leaves around 13,000m2 of accommodation occupied by what would be deemed airport-related or ancillary uses on RSP's definition.

There can be no justification for the scale of development proposed for the Northern Grass relative to the scale of operation which RSP put forward for Manston. By way of a further example, the proposed New Century Park Business Park proposed for land adjacent to Luton Airport comprises just under 60,000m2 of accommodation, including a hotel of 6,600m2. Of the remainder, 11,100m2 are expected to be used for

airport-related business, with the remainder for general warehousing and office use. This has to be seen within the context of Luton being an airport handling over 17 million passengers a year with 1,400 freighter aircraft movements and over 22,000 tonnes of freight annually with plans for further expansion."

6.8 In Paragraph 17 of Annex 4, it is stated that RSP has *"not sought to identify specific tenants for individual buildings on the Northern Grass at this early stage of the development".* This is highly concerning given RSP's application documents are based on 55,000m^2 of accommodation being developed on the Northern Grass area during phase 1 (2019/2020), with a further 50,100m2 in phase 2.

6.9 In summary, it is clear that the new information provided in Annex 4 in no way provides adequate supporting rationale or justification as to how the proposed development in the Northern Grass area constitutes associated development as defined within s115 PA2008 and in accordance with the AD Guidance.

6.10 It is also noted that the Applicant has failed to provide any explanation and justification for all other elements of its proposal that it purports to be the NSIP and that which it considers to be associated development. It is expected that this will finally be provided as part of the Applicant's Deadline 3 submission in line with the express commitment the Applicant gave to the ExA at the draft DCO hearing on 10 January 2019. Clearly, any information provided by RSP will need to be thoroughly examined and robustly tested in the examination.

BIRCHAM DYSON BELL

[redacted]
Pinsent Masons LLP
30 Crown Place
London
EC2A 4ES

Your Ref

Our Ref
166055.3
Date
5 March 2018

By Email

Dear Sir

Use of section 172 of the Housing and Planning Act 2016 at Manston Airport

We write in response to your letter dated 1 March 2018.

Undertakings

1 We confirm that our client, RiverOak Strategic Partners Limited (RiverOak) undertakes to provide you with 2 clear days' prior notice of the date, time and court at which any application for a warrant pursuant to section 173 of the Housing and Planning Act 2016 is to be made.

2 We do not think it necessary for RiverOak also to undertake to provide you with at least 5 clear days' notice of when we intend to try to gain access to the site. The requirement in section 174 of the Housing and Planning Act 2017 requires at least 14 days' notice to be given prior to the first day on which the authority intends to enter the land. This requirement has already been complied with.

NSIP Justification

3 The project is unequivocally a nationally significant infrastructure project. Our justification is set out in the enclosed document.

Access Licence

4 On the basis that RiverOak has now confirmed why it satisfies the test in section 23 of the PA 2008 we would like to resume the negotiations in relation to agreeing a voluntary licence

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agreement on the same terms as the licence agreed in 2017. If you agree we will provide a revised draft of the licence.

Yours faithfully

[redacted]

Bircham Dyson Bell LLP

[redacted]

Encl.

MANSTON AIRPORT DEVELOPMENT CONSENT ORDER

APPLICATION REF TR020002

NSIP JUSTIFICATION

Introduction

1. This statement sets out why the Manston Airport project is a nationally significant infrastructure project (NSIP) that requires consent under the Planning Act 2008. It is intended to form part of one of the application documents.

Type of NSIP

2. The project falls under section 14(1)(i) of the Planning Act 2008 as *'airport-related development'*.

3. Section 23 sets out what that means, and this project fulfils sections 23(4) and 23(5)(b), namely that this is the alteration of an airport, the effect of which *'is to increase by at least 10,000 per year the number of air transport movements of cargo aircraft for which the airport is capable of providing air cargo transport services'*.

4. As the airport closed in May 2014 and no longer has an aerodrome certificate to allow it to operate, it is arguable that Manston is not currently 'an airport'. In that case we would rely on section 23(2) and 23(3)(b), namely that our project is the construction of an airport that is capable of providing *'air cargo transport services for at least 10,000 air transport movements of cargo aircraft per year'*. However, given that the runway is still there and will be re-used, and it did operate from 1916 until 2014 as an airport, we consider it is better to consider the project as the alteration of an airport rather than the construction of a new one. We nevertheless show below that the project is above the NSIP threshold for construction or alteration of an airport.

5. To satisfy the 'alteration' definition, the project must increase the current number of air cargo movements that the airport is capable of providing by at least 10,000 per year. The first step is thus to consider what the airport is currently capable of providing, and there are two options there: that it is currently capable of providing zero air cargo movements, or that it is currently capable of providing the capability it previously had when it was open.

6. Our case is that it is currently capable of providing zero air cargo movements, and we demonstrate below how our project will be capable of providing at least 10,000 air cargo movements per year. That also demonstrates that if the correct reading is that we are constructing a new airport, then it will be capable of providing at least 10,000 air cargo movements per year. Again, we also deal below with alternative case that the airport's current capability is its capability when it was previously operational.

Current capability

7. Our case is that the current capability of the airport is zero. That is because it would require an aerodrome certificate to start operating and would also require 'development' in planning terms to bring it back into use, whether by permitted development or the grant of a planning application, both of which are forms of planning permission. The capability of a facility is what it, together with any improvements that did not need planning permission (including by means of permitted development), was capable of handling. Any development that was required cannot be counted, because otherwise every project would only count as an NSIP if the difference between what could lawfully be applied for planning permission (which would be up to just below the threshold) and the capability of the project in question exceeded the threshold, effectively doubling the threshold.

8. To bring the airport back into use would require development. Although the runway is in good condition much of the operating equipment has been removed and sold and would have to be reinstated, necessitating planning permission. The following would need to be installed as a minimum: air traffic control facilities, primary and secondary radar, an instrument landing system and radar display equipment. The cargo-handling facilities are inadequate and would need planning permission to make them usable. Furthermore the existing taxiways are not horizontal and have a slope that exceeds the maximum value of 1.5% now permitted by the Civil Aviation Authority (CAA) for aircraft of Code C and above, which would require a dispensation from the CAA to be allowed to operate safely, likely to reduce the capability further.

Limit of capability

9. The factors that constrain the capability of a cargo airport are the throughput of the runway, the number of aircraft that can simultaneously be handled, and the ability to handle cargo at the airport and to transport it over the surface transport network.

10. The runway at Manston is one of the longest in the UK. Our proposals include the provision of a parallel taxiway further away than the current one, which is so close that aircraft cannot use the runway while another aircraft is using the taxiway, effectively doubling its throughput. An unconstrained runway could handle at least 30 flights an hour, taking Gatwick as an example that already does this. 30 flights an hour for 18 hours a day (0700 to 2300) for 365 days a year equates to nearly 200,000 flights a year so the runway is not the critical factor constraining air traffic movements.

11. As the threshold in the Planning Act 2008 is for air cargo movements rather than tonnage of cargo, the ability to handle substantial quantities of cargo is irrelevant – one is entitled to assume the aircraft are transporting low volume and high value cargo that does not require substantial handling facilities, nor will it place a burden on the surrounding road network.

12. This leaves the critical factor as the ability to handle aircraft simultaneously. Our proposals involve the creation of 19 cargo stands (and four passenger stands, which can be ignored for the purposes of calculating cargo movements). Our aviation expert advice is that on a conservative basis a single cargo stand can turn around five aircraft per day, i.e. ten movements. 19 stands each handling ten movements 365 days per year equals 69,350 movements per year, and therefore the capability of the airport will be at least that level, which is nearly seven times the required threshold. The project is thus comfortably above

the threshold if one assumes the existing capability to be zero. Note that this is the maximum capability of the airport for the purposes of establishing that the project is an NSIP and is not the level that it is intended to operate at, even at the fully operational year 20.

Previous capability

13. When the airport was previously operational there were no restrictions on numbers of flights in terms of planning limits, so one must look at the number of air cargo movements that the airport was physically capable of handling. When the airport was previously operational it had four 'Code C' stands for aircraft, which could accommodate two cargo aircraft simultaneously.

14. Although the runway could not be fully used due to the inability to use the parallel taxiway as it is too close, thus halving its potential throughput, the capability of the runway is still not a critical factor in calculating the capability of the airport, as half of the 200,000 figure calculated above is still virtually unconstrained.

15. Again the critical factor is the number of aircraft that can be handled simultaneously. When operational, the airport had four stands that could handle two cargo aircraft simultaneously. With a turnaround of five aircraft a day, that is 7,300 movements per year. Including aircraft not on a stand but able to park on the apron, although impractical, would double this to four aircraft simultaneously, which corresponds to 14,600 movements per year. The above figure of a 69,350 movement capability for this project represents an increase of 54,750 movements, which still exceeds the threshold by many times.

16. Any assumption of greater throughput per aircraft stand affects both the existing capability figure and the capability of this project and only serves to increase the difference between the two. For example a seven aircraft turnaround per day would increase the previous operational figure to 20,400 (for four simultaneous aircraft, which we believe to be more than the airport was in fact capable of handling) and this project's capability to 97,090 (with 19 cargo stands) respectively. The differential thus increases from 45,400 to 76,690 (again, maximum capability rather than operational intention).

Capability and environmental assessment

17. As implied by paragraph 12 and 16 above, there is a difference between capability and what is environmentally assessed, as these are two fundamentally different things. Capability refers to the theoretical maximum throughput of an infrastructure project, whereas environmental assessment is of likely significant environmental effects. It is not likely (in fact, very unlikely) that the airport will operate at its theoretical maximum and so this has not been assessed. Airports rarely operate close to their theoretical maxima and this one will be no different. As is the case with Heathrow, if an airport is predicted to reach its theoretical maximum capability in the near future there would be likely to be plans to expand it well before then, with their own opportunities for public engagement.

18. Why our airport design has a theoretical capability that is significantly higher than its projected use is a matter that will be set out in our application documents. It is of course not relevant to whether the project is an NSIP, but still deserves to be answered.

Conclusion

19. Our case is that we are applying for the alteration of an existing airport whose current capability is zero air cargo movements per year. By our expert's calculations the design of 19 new cargo stands will be capable of handling at least 69,350 air cargo movements per year, more than six times the threshold in the Planning Act 2008.

20. Even if we our case is wrong and the correct analysis is that this is the construction of a new airport, or the current capability is the airport's capability when it was previously open, then the number of air cargo movements that this project will be capable of handling comfortably exceeds the existing capability by many times the 10,000 air cargo movement per year threshold. It is simply common sense that increasing the number of cargo stands from one to 19, and overall stands from two to 23, will vastly increase the airport's capability.

21. The project is unequivocally a nationally significant infrastructure project.

History of Efforts to Keep Manston Airport Open

1998-Present

Wiggins Group/ renamed as Planestation (owner)
Period: 1998-2005

Wiggins bought the airport in 1999 for £4.75 million and operate the site as a commercial civilian-only airport branded as 'London Manston Airport'.

In April 2001 Wiggins Group published a 'Strategic Masterplan' for Manston. This stated that the airport would double its cargo traffic from 36,000 tonnes per annum to a profitable rate of 100,000 tonnes per annum within twelve months (by April 2002). Annual CAA statistics from 2002 to 2005 (when the airport was sold) show that actual freight levels peaked in 2003, at 43,026 tonnes (less than half projected).

In January 2004, Wiggins renamed itself Planestation. Later that year they bought 30% of the airline company EUJet, a budget airline. Subsequently, Planestation made a statement that the airport would break even if it were to achieve delivery of 70,000 tonnes of cargo per annum. This was not achieved, with freight in 2004 totalling 26,626 tonnes per annum.

In September 2004 EUJet started to operate passenger flights from the airport to destinations across Europe and in its busiest month in early 2005 the airport carried 62,709 passengers. An application was approved for a 2000 space car park for the passenger terminal, of which 1,100 spaces were delivered. By July 2005 all EUJet operations were suspended along with all non-freight operations including MK Airlines, Manston's main cargo customer, who left the airport for another site in Europe. Planestation went into administration in 2005, following the significant financial losses incurred during ownership.

Sources:
KCC Position Statement 2015.
Wiggins' company accounts (1999-2002).
CAA Data on Amount of freight in tonnes delivered per annum at Manston (2000-2014)
Wiggins Group "A Strategy for Success" as summarised in Rail, Airports and Ports Select Committee. Airports Interim Report (September 2002)
http://www.airportwatch.org.uk/uk-airports/manston-airport-kent-international/
Transport Select Committee, 2015.

Infratil Limited (owner)
Period: 2005-2013

Infratil Limited acquired Manston Airport from administrators in August 2005 for £17m and re-commenced passenger and freight transport operations. Various upgrades were made to the airport, including airfield radar, high and low voltage electricity systems, back-up electricity generators, airfield ground lighting, rescue fire equipment, etc.

Infratil published and consulted on a Draft Airport Master plan for the site from October to December 2008. The Vision was based on the contention that the airport has a large catchment area, that the South East has insufficient capacity to accommodate predicted growth and that the airport will provide an increasingly

attractive alternative for airlines and passengers as congestion increases. The masterplan sought growth in both freight and passenger numbers. The anticipated growth in freight was projected to grow annually starting at 107,000 tonnes in 2010 and reaching 507,000 by 2033. To achieve this, the masterplan proposed:

- Additional freight aprons
- Provision of general aviation/fixed base Operator operations south of the passenger terminal.
- Bulk fuel installation
- Fuel facility development
- Improved parallel taxiway
- Enlarged passenger aprons, terminal and additional parking spaces

In November 2009, Infratil published the final Kent International Airport Masterplan, which sets out Infratil's vision on how they planned to grow both passenger and freight services. The Masterplan considered that growth forecasts were realistic and achievable because:

- The catchment for the airport was large;
- People within the catchment travel regularly used other airports in the South East;
- The South East had insufficient capacity to accommodate predicted growth over the forecast period;
- The airport would provide an increasingly attractive alternative for airlines and passengers as congestion increases;
- The predicted growth was similar to demonstrated patterns at other airports serving similar size regions; and
- Although EU Jet was commercially unsuccessful, it provided valuable insight into the potential of the market.

With respect to freight, the Masterplan forecast gradual increases in freight tonnage of around 6% per annum, combined with step changes as existing operators at other airports relocate to the airport to access available capacity. The final masterplan suggested the airport would achieve around 401,000 tonnes per annum by 2033 (a reduction from the Draft version of the same document).

The Masterplan summarised the additional infrastructure that would be provided to achieve this growth (see list above). This included additional freight handling facilities and areas, which were considered to be a key component to allow the airport to receive freight dislocated from congested London airport.

Despite Infratil's plans, during their ownership of the site, the airport never achieved more than 31,000 tonnes of freight per annum, falling well short of the previously stated 'break-even' point of 70,000-100,000 tonnes per annum. At this time, Infratil regularly declared Manston airport as a specialised freight handler making a substantial contribution to the UK's air-transport freight capacity. However, we understand that these statements were significantly exaggerated, and Manston actually only contributed approximately 1.3% of national freight tonnage.

Likewise, actual passenger numbers experienced at the former airport were significantly lower than forecast. Passenger numbers failed to exceed 50,000 between 2006 and 2014 when the airport finally closed. Infratil's peak passenger year was 2011 when 48,450 passengers used the airport which represented 0.02% of the UK total.

Infratil incurred substantive annual losses (reported to be in excess of £3m per annum) sold the airport and associated liabilities in 2013 for £1.

Sources:
UK Parliament Transport Committee, Case Study 3: Manston
CAA, Airport Statistics, 2016).
KCC Position Statement 2015.

Manston Skyport Limited (owner)

Period: Dec. 2013-May 2014

Infratil Kent Airport Limited and Infratil Kent facilities Limited were acquired from Infratil Airports Europe on 29th November 2013 by Manston Skyport Limited, changing their names, respectively, to Kent Airport Limited and Kent Facilities Limited. The companies were capitalised with £4.75m to fund the airport's ongoing operating costs post-acquisition.

At the point the acquisition became certain, an experienced turnaround management team was appointed by Manston Skyport Limited to create a business plan for the airport, based on continuing aviation operations, and to recruit their permanent successors in due course.

The interim CEO appointed was considered eminently suitable for the role, having had recent direct experience in successfully turning around a loss making regional airport and had demonstrable and positive experience of working with all relevant stakeholders to achieve this. He also had strong commercial contacts with passenger and cargo airline operators.

The interim CFO had extensive finance experience and was required to take a forensic view of the cash flow and internal controls at the airport. He was also required to undertake detailed analysis of the various business streams, and opportunities with a view to assessing their commercial viability and potential.

The interim executive team then commenced a "root and branch" review of the airport's potential and prepared a very detailed "base case" business plan reflecting the operations as they were found. This was subsequently adjusted to reflect the loss of the Saudi Cargo activity, with the airline advising that it would cease its twice weekly rotations at the end of March 2014.

The "base case" projections revealed a "cash burn" of c. £10,000 per day on trading activities alone, with further funds being required to finance essential capital expenditure. As there was only limited capacity to reduce costs losses could only primarily be reduced by increasing revenues.

Various revenue enhancing opportunities were explored. This included discussions with a number of airlines about the case for either relocation of existing services to Manston or the initiation of new services from Manston. These potential services had the potential to be significant revenue generators for the airport. Of the number of airlines approached/considered, the key prospects included the relocation of BA World Cargo from Stansted (this prospect died when BA chose to exit the dedicated freighter market); potential services by easyJet (this was not an option as Manston did not fit their business strategy) and Ryanair, who had initially been interested in the potential of Manston, chose to focus their strategy on airports better suited to business users closer to major centres of population.

Additional discussions were also had with various other established and start up cargo operators about increasing their utilisation of Manston and potentially basing aircraft at the airport, leading to increased warehousing revenues. Notwithstanding that the revenue potential and indeed its delivery was materially uncertain these were assumed to be delivered in the business plan. The potential to increase income further by leasing unused land to a solar farm operator was explored as it was believed that additional revenue could be generated without impacting aviation.

Discussions were had with the market leading aircraft breaker, Air Salvage International, about operating from Manston but the feedback was that they would only consider Manston if the use of a Hanger to the company free of charge. The conclusion of this work was that recycling would not deliver any meaningful revenues (generating £230k of revenue by year 4) – although the forecast was included in the plan. Consideration was given to the prospect of increased use of Manston as a training centre for both commercial and business aviation.

Even with an optimistic application of revenues attaching to all these initiatives, an assumption that Saudi Cargo reinstated their services, forecast increases in warehouse rents, landing charges and £400k of

anticipated annual cost efficiencies a break-even position could not be achieved and no sustainable business model identified. Hence, in the absence of a viable business plan that could deliver a break even position, even in the medium term, the Board concluded that it had no alternative but to close the airport.

Source:
Greyfriars Investment

Thanet District Council

Period: December 2013-December 2016

Dates	Actions	Source
December 2013- May 2014	TDC explored the possibility of using Compulsory Purchase Order (CPO) to acquire the former airfield as a means of re-commencing airport use. Searches yielded a small number of interested parties (including RiverOak Investment Corporation) who expressed interest. On 11th December 2014 TDC Cabinet considered and rejected the possibility of making a CPO on the basis that the Council had not identified any suitable expressions of interest that fulfilled the requirements for a CPO indemnity partner and did not have the financial resources to pursue a CPO in its own right.	Cabinet Report 11th December 2014
May 2015	TDC Cabinet agreed to review its position in relation to the potential to acquire the former airfield and authorised specialist legal and financial advice to determine whether RiverOak were a suitable indemnity partner.	Cabinet Report 29th October 2015
October 2015	TDC Cabinet concluded for a second time that no further action would be taken on a potential CPO, on the basis that RiverOak did not fulfil the Council's requirements for an indemnity partner.	Cabinet Report 29th October 2015
June 2016	TDC Cabinet considered the results of further soft market testing to identify potential interest from third party indemnity partners for a potential CPO. The report concluded that "*the market cannot deliver on the Council's requirements for a CPO; there is no established market which is able to deliver, or an adequate number of operators; the market has no capacity to deliver the requirements and there is no cost or other benefits in taking this matter further*" (Committee Report, paragraph 3.4). TDC Cabinet noted the results of the report and – for a third time - decided to take no further action on a potential CPO.	Cabinet Report 16th June 2016

October 2016	TDC published the results of an independent report by AviaSolutions commissioned to form part of the evidence base for the emerging Local Plan. AviaSolutions is a leading global aviation advisory firm, acquired in 2012 by GE Capital Aviation Services, the world's leader in aviation financing and leasing and part of General Electric. The report considers whether viable airport operations could be re-instated on the former Manston airport site. It concluded that "*airport operations at Manston are very unlikely to be financially viable in the longer term and almost certainly not possible in the period to 2031*" (paragraph 2.5).	AviaSolutions Report
December 2016	TDC Cabinet approved public consultation on proposed revisions to the 2015 Preferred Options Local Plan to reflect the conclusions of the up-to-date evidence base (including the AviaSolutions Report). This included a policy to allocate the former airfield site (including the appeal sites) for mixed-use development. Consultation on the Proposed Changes to the draft Local Plan ended on 17th March 2017.	Cabinet Report 8th December 2016

GVA

July 2017

AVISON YOUNG

The Case for Housing

February 2019

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For and on behalf of Avison Young

1. Introduction

1.1 GVA have been commissioned to prepare a report setting out the case for housing on the site of the former Manston Airport. It has been written to accompany written representations to the DCO examination made on behalf of Stone Hill Park Ltd.

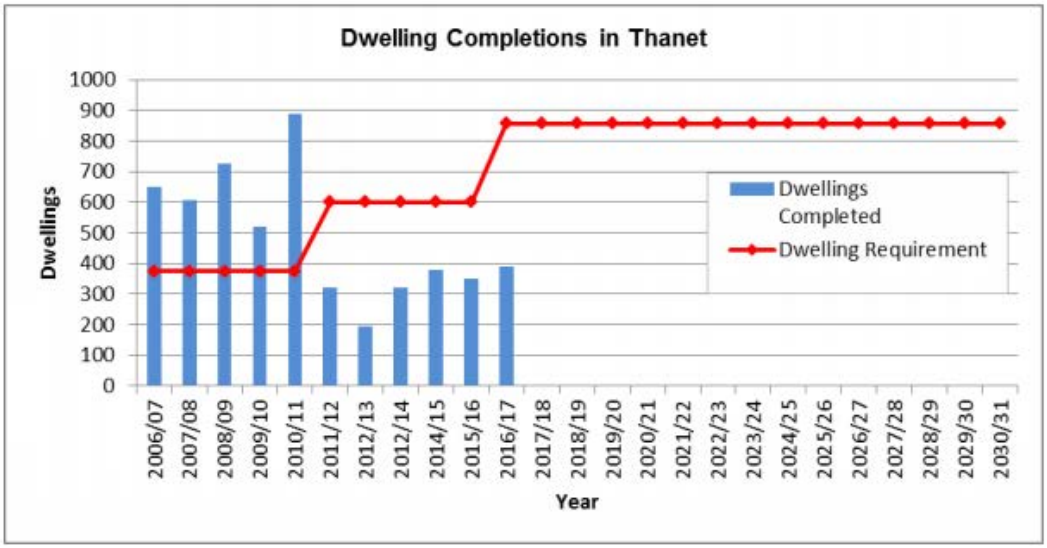
1.2 The report identifies the pressing need for housing in the District, as confirmed by emerging Local Plan evidence base and recently published Government guidance. It considers the suitability of the former Manston Airport site for meeting these needs, and concludes that SHP's proposals are an important alternative use to that proposed by the DCO.

2. Scale of Housing Need

2.1 The most up-to-date evidence base identifying housing needs across the District comprises the Thanet Updated Assessment of Objectively Assessed Housing Need (OAN) 2016. Overall, the study identifies a District-wide OAN of 17,140 dwellings over the 2011-2031 plan period (equating to 857 dwellings per annum). This forms the basis of draft Policy SP11 of the Draft Local Plan, which adopts this figure as the District's housing target over the plan period.

2.2 The Council's most recent Annual Monitoring Report (2017) demonstrates that only 1,954 homes have been delivered in Thanet since 2011 (an average of 323 dpa). This figure falls significantly short of the Council's draft annualised target. As of 1st April 2017, unmet housing need in the District equates to 3,188 homes, a shortfall of more than three and a half years. In the most recent reporting year, housing completions stood at 389, less than half of the 857 annualised target. The Council's own evidence clearly demonstrates that they have consistently failed to delivery sufficient housing to meet local needs.

Figure 1 – AMR Chart showing Dwelling Completions in Thanet, 2006/07 – 2016/17



Source: Thanet Local Plan Annual Monitoring Report 2017

2.3 In September 2017 the Ministry of Housing, Communities and Local Government (MHCLG) consulted on changes to planning practice guidance relating to the standard method for assessing local housing needs. Alongside this, they published an indicative assessment of housing need for each local authority area based on the proposed formula. For Thanet, the MHCLG estimated that applying the standard method would result in an OAN of 1,063 dwellings per annum between 2016-2026. Applying this to Thanet's local plan period would result in a total OAN in the District of 21,260 dwellings.

2.4 In October 2018, the Government clarified in their Technical consultation on updates to national planning policy and guidance that 2014-based data should continue to form the baseline for of assessment of local housing need, and confirmed that lower numbers through the 2016-based projections do not qualify as an exceptional circumstance that justifies a departure from the standard methodology. The MHCLG estimate for OAN in Thanet using the standard method therefore remains unchanged.

2.5 As the Draft Local Plan was submitted for examination prior to the 25th January 2019, the Council is able to rely upon their own (lower) locally assessed OAN for the purpose of local plan examination even though it plans to provide for fewer homes than up to date need assessments show are required. However, any future review of the Local Plan will need to conform with the standard method OAN unless exceptional circumstances justified departure. The Secretary of State has directed that a review must take place 6 months after adoption of the local plan (Letter Rt Hon James Brokenshire MP, 28th January 2019)[1]. Thanet's scale of housing need will therefore grow even further in the near future.

2.6 In addition, because any proposed revisions to the PPG will apply from the date of publication, the significant gap between Thanet's locally assessed housing need (17,140 dwellings over the plan period) and the standard method (21,260 dwellings) will form a material consideration in decision-making.

2.7 In summary, as of April 2017 the shortfall in housing delivery in the District equates to a 3,188 dwellings, an equivalent of a three and a half year shortfall against the Council's own annualised target of 857 dwellings per annum over the plan period. The need for housing in Thanet is therefore persistent, acute and will increase following the adoption of the standard method for calculating housing need.

3. Local Plan Context

3.1 The housing policies contained in the 2006 Local Plan are not up to date, as they relied upon the South East Plan Regional Spatial Strategy which was formally revoked in March 2013 and cannot be used as a basis for calculating the five year supply of housing. There has therefore been no established housing target in Thanet for six years. The failure to put a new Local Plan in place has exacerbated issues of housing delivery in the District.

3.2 Preparation of the emerging Local Plan has been extremely slow, so much so that the Secretary of States for Housing has intervened. In a letter to the Leader of the Council on the 23rd March 2018, the Sectary of State Rt Hon Sajid Javid MP identified Thanet's "persistent failure over many years and under different administrations, to get a Local Plan in place" and noted the Council's failure to meet Local Development

[1] The Secretary of State's letter is provided as Appendix 1.

Scheme milestones on at least five separate occupations. In a subsequent letter to the Leader of the Council on 28th January 2019 (Appendix 1), the new Secretary of State Rt Hon James Brokenshire acknowledges that whilst some progress had been made by the Thanet in the preparation of the Local Plan (including the submission for examination), intervention action remains justified. He sets out a number of actions in relation to the preparation of the Thanet Local Plan and confirms that:

- Thanet have consistently failed to bring forward a Local Plan in accordance with its Local Development Scheme as legally required, having failed to meet Local Plan milestones in at least six Local Development Schemes since 2006;
- Thanet is within the top third of Districts in England for high housing pressure, based on average affordability ratios;
- Thanet's lack of a five-year housing land supply further highlights the authority's failure to plan for and deliver the homes people need; and
- Thanet will be required to complete a review of their Local Plan within six months adoption to "ensure full and effective coverage of housing provision"

3.3 He also puts on public record his "concerns about the low level of housing supply and delivery in Thanet. I expect planning decision-takers to have regard to these concerns as a material consideration when deciding local planning applications" (Letter Rt Hon James Brokenshire MP, 28th January 2019). It is clear that housing need in Thanet is of critical importance, and the Council are in a desperate position to meet these needs.

3.4 The Regulation 19 version of the emerging Local Plan replaces Draft Policy SP05 (which allocated the former Manston Airport site for mixed use redevelopment including at least 2,500 homes) with supporting text which states the site is not allocated for any specific purpose to ensure that the NSIP-DCO process is not 'prejudiced'. The effect of the DCO application has been to exclude this important site from plan-making, delaying redevelopment of a site which would otherwise deliver a large proportion of the District's housing need, which is pressing and acute.

4. SHP Proposals

4.1 Stone Hill Park's enhanced masterplan planning application was submitted in May 2018 and represents the culmination of more than two years of continuous engagement with the local authority, statutory consultees and the local community regarding the future of the site (ref. OL/TH/18/0660).

4.2 The vision is for a high quality, distinctive new settlement which will not only contribute a large proportion of Thanet's growing housing needs, but also deliver thousands of high-tech and advanced manufacturing jobs. We will also put Manston on the map as a regional sport and leisure destination. From a new country park to an improved aviation heritage component, the proposals will open a successful new chapter for Manston and a prosperous one for Thanet. SHP's proposals are structured around five key components:

1. 3,700 much needed homes for all stages of life, including a range of high quality homes, across a range of tenures and sizes (from executive homes to starter and micro-homes);

2. A new advanced/hi-tech manufacturing park including up to 46,000sqm (GIA) of employment floorspace which will provide modern, flexible employment floorspace in a variety of sizes and provide thousands of jobs and training opportunities, including construction jobs during the 15-20 year build out;

3. A heritage airport comprising the re-use of the western most 1,199m of the runway for use by heritage, vintage and classic aircraft, relocation of the existing RAF Manton Museum and Spitfire and Hurricane Museum to new facilities directly adjoining the runway, and associated aviation facilities including café, hangars, event and education space;

4. A new country park including 133ha green infrastructure (45% of the total site area), comprising publically accessible open space with parks, sports pitches, trim-trails, habitat and ecological areas, new woodland, structural planting, community orchards, allotments, and part of the former runway which will be transformed into a unique recreational and events space, all connected by a network of local green spaces; and

5. East Kent Sports Village, which will deliver regional leisure facilities of a regional scale (including a 'Wave Gardens', 50m swimming pool, and outdoor sports pitches).

4.3 These components will function as an inter-dependent mutually beneficial mix of uses that complement and support one another and create an integrated mixed use new community. They will be supported by a range of complementary facilities which will ensure delivery of a truly sustainable community, including a new Local Centre (with small/medium foodstore, cafes/restaurants/ GP and pharmacy, community hall hotel), a smaller satellite centre, and two new primary schools.

4.4 The supporting reports demonstrate that SHP's proposal for the site will result in significant social, economic, financial and environmental benefits, including:

- regenerating a vacant, previously developed site in accordance with the core land-use planning principles set out in the NPPF;
- delivering c. 20% of the District's housing requirements over the plan period without relying upon greenfield land, where there is no 5 year housing supply and a consistent history of under-delivery;
- delivering a comprehensive mix of uses, including new homes, community facilities (including two new primary schools, health centre, community hall), sports facilities, education and retail spaces, that enables people to work, shop and access day-to-day services close to where they live;
- bringing aviation use back onto the site by re-using the western portion of the existing runway to allow for operation for heritage aviation use, supported by new hangars and a relocated museums to create a new historic and cultural aviation 'hub;
- delivering 1,474 full time equivalent (FTE) direct jobs, and additional indirect jobs through construction, in an area of acute socio-economic need and deprivation
- providing opportunities for education/training, including new training and apprenticeships for young people and the long-term unemployed;
- delivering substantial areas of managed high quality open space and green infrastructure, including significant contributions to biodiversity habitat;

- introducing new regionally significant leisure facilities (including a wave garden, 50 metre swimming pool) which are currently not provided in the region, and therefore help increase tourist attraction in the local area;
- opening up a Site which has been closed to public access for many years, creating new connections through the Site, increasing permeability within the local area;
- delivering the first leg of a north-south link road through the Site to Westwood Cross; and
- resulting in direct financial benefits to Council in form of New Homes Bonus (£41.9m) and annual tax receipts (£7.0m).

4.5 The technical reports submitted in support of the application are prepared by SHP's exemplary design and technical environmental team and confirm that SHP's proposals would not result in any significant adverse impacts that could not be mitigated. The proposals have been prepared in close collaboration with the Council and statutory consultees in order to optimise the quality of the scheme.

4.6 A Financial Viability Assessment (July 2018) submitted in support of the application demonstrates that the proposals are deliverable and financially viable. A Deliverability Report submitted with the application confirms that the proposition is deliverable in planning terms. Stone Hill Park have agreed terms with Optivo, one of the largest housing providers in the UK, for the delivery of the first phase of 400 residential units with the option to take on more in due course. As a housing association, Optivo's key objective will be to deliver homes at a comparatively fast pace, which will ensure a critical mass of residential development is delivered at an early stage.

4.7 The majority shareholders for Stone Hill Park Ltd. (Chris Musgrave and Trevor Cartner) have a demonstrable track record of investing in and successfully regenerating large, redundant, brownfield sites for mixed use development, and are committed to delivering the scheme without delay. For example:

- Wynyard Park is a 280ha site in Teeside which formerly comprised microwave and computer monitoring factories operated by Samsung. Chris Musgrave and Trevor Cartner formed Wynard Park Ltd in 2005 to acquire the site following closure of the Samsung plant. Since acquisition, the site has attracted more than £250 million of private investment, and is currently 90% let and is home to over 65 companies of varying sizes and currently provides in excess of 2,000 jobs. In April 2014 a planning permission was granted for 101,858 sqm of commercial floor space, up to 600 dwellings, a 2-form entry primary school, local centre, changing facilities, playing field and open space. Upon completion some 4,000 homes will be delivered;
- Discovery Park in Kent was originally the European Headquarters for Pfizer, who set up at the site in 1954 who developed the site over a 50 year period. In February 2011, Pfizer vacated the site, resulting in the loss of almost 1,800 jobs. In July 2012 the site was acquired by Discovery Park Ltd (DPL) a consortium including Chris Musgrave and Trevor Cartner. Since acquiring the site, DPL managed to achieve enormous success growing the site from five tenants to more than 150, employing 2,400 people. The site now has a strong science and technology presence, supported by a broad range of business enterprises. In September 2015, outline planning permission was granted across the site for up to 500 homes, 120,000 sqm of new commercial/education floorspace, retention and reuse of existing floorspace for employment uses, two hotels, a new supermarket and ancillary uses. In 2016, the site was

sold to investment company Discovery Park Estates Limited, who will take forward the delivery phase of the masterplan.

- The majority stakeholders of Stone Hill Park purchased the site of the former Sanofi plant in Newcastle. At the end of July 2015, the factory ceased production, with the resultant loss of more than 400 jobs. The site has now been fully redeveloped into a science and technology park with inward investor Accord taking the majority of the space for pharmaceutical production.

4.8 The proposals will make a major contribution towards addressing housing delivery issues in the District and deliver a large proportion of the District's housing need in a comprehensively designed new settlement, with sufficient critical mass to deliver necessary infrastructure and services, including the delivery of a key transport link between the A22 and Manston Road forming part of the Council's Transport Strategy. It will embed the principles of sustainable development at its heart, providing the backbone upon which this new community will grow and evolve over time.

5. Suitability of Site for Housing

5.1 The former Manston Airport site is a vacant, previously developed site in an area of acute housing and socio-economic need which presents an opportunity to deliver a significant proportion of the Council's projected housing need through a comprehensive, sustainable new settlement which encapsulates the core principles of a Garden City.

5.2 SHP's application makes a well-evidenced case for the appropriateness of residential development on the former Manston Airport site, as part of wider mixed use development. The housing case contributes to a 'total place' approach to future development and the clear inter-dependency between the employment, housing, community, cultural, and sport/recreation uses in achieving a truly rounded sustainable development proposition.

5.3 Stone Hill Park's proposals are for a sustainable mixed-use settlement that enables people to work, shop and access day-to-day services close to where they live. The masterplan encourages residents, employees and visitors to live sustainably by providing a range of necessary facilities and amenities within easy distance of their homes and places of work. Together, the proposed uses ensure that the proposed development is a genuinely sustainable, distinctive place which meets the needs of its residents and visitors and encourages them to live more sustainability. The proposal therefore fully embodies the principles of sustainable development.

5.4 The application is currently well served by public transport (bus) and improvements to bus services are proposed in order to enhance connectivity of the site to surrounding Towns. The accessibility of the site will increase in further following the opening of the Thanet Parkway Station, which will provide a direct railway link to Margate, as well as high speed services to London in just under an hour.

5.5 The proposals will deliver a significant proportion of the District's housing requirements in a way which is planned positively, proactively, and with the principles of sustainability at its heart. The masterplan has been designed to serve as the backbone for the creation of a new community, which will grow and evolve over

time. Up to 3,700 homes are proposed within the application boundary, which will create a critical mass of residents needed for the delivery of a rich mix of supporting infrastructure and services.

5.6 SHP's proposals have been devised in line with the development principles and detailed policies set out in the Council's draft Policy SP05, which would allocate the site for mixed use development. The site was scored favourably by the Council in the Sustainability Appraisal for the Revised Preferred Options, which identified that the redevelopment of the site in line with Draft Policy SP05 would have both short and long term positive impacts on most objectives. In particular, the SA confirmed that redevelopment would ensure a sustainable pattern of development, ensure the protection of environmental, cultural and historic assets, and provide a sustainable supply of housing including an appropriate mix of types and tenures to reflect demand and need.

5.7 The former Manston Airport is therefore clearly a suitable site for strategic housing delivery.

6. Unsuitability of Alternatives

6.1 On the 18th January 2018 the draft Plan (including draft Policy SP05 allocating the former Manston Airport site for up to 2,500 homes) was presented to the Full Council with a recommendation to publish the plan for consultation. Members went against Officers' recommendations and rejected the plan by a margin of 20 'for' to 35 'against'. The primary area of contention comprised the future use of the former Airport Site and the quantum and distribution of housing need within the District.

6.2 In July 2018 the Draft Local Plan was taken back to Council, where Officers presented two options. Option 1 was to proceed with the draft Local Plan as recommended to Council on 18th January 2018, which remained the recommendation of Officers. Option 2, which Members voted for by a count of 31 'for' and 21 'against', replaces the proposed allocation on the former Manston Airport Site with supporting text (as described above) and 'redistributes' the 2,500 homes to the following strategic sites:

- An additional 600 dwellings at Birchington, as an extension of the previous draft allocation;
- An additional 1,000 dwellings at Westgate, as an extension of the previous draft allocation;
- An additional 500 dwellings at Westwood, as an extension of the previous draft allocation at Manston Court Road/Haine Road;
- An additional 550 dwellings at a new strategic site north and south of Shottendane Road.

6.3 The alternative Strategic Sites put forward for the Council rely are greenfield, agricultural land predominantly classified as 'Excellent' in the Agricultural Land Classification. They would necessitate a more 'piecemeal' approach to housing delivery that is unlikely to generate sufficient critical mass to deliver necessary infrastructure to mitigate their own impact and are therefore likely to place additional pressure on existing local facilities and services. There is also insufficient evidence that they are capable of delivering the quantum of homes proposed over the plan period. We comment on the deliverability of each alternative allocation briefly below. See Appendix 2 for detailed representations submitted to the Draft Local Plan.

Birchington-on-Sea (Policy SP14)

6.4 The site is allocated for an additional 600 homes, however the revised site boundary incorporates land which was already allocated in the Preferred Options Local Plan (Policy H02C) and therefore double counts by 90 homes.

6.5 The related policy is SP14, which is carried over from the Preferred Options Local Plan and continues to set a a maximum density of 35 dwellings per hectare for the allocation site. It is unclear how additional homes could be accommodated on the proposed allocation site as the proposed site boundary has changed only marginally (by 9.3ha) and the maximum density control proposed by Policy SP14 remains unchanged.

6.6 The additional areas now included within the proposed site boundary comprise agricultural land/greenfield classified as 'Excellent' in the Agricultural Land Classification. The additional land is not in the SHLAA and has not been put forward by a developer. That portion of the site which was identified in the SHLAA was assessed as having constraints to development.

6.7 We therefore question whether these sites are available, viable, sustainable or feasible within the plan period.

Westgate-on-Sea (Policy SP15)

6.8 The majority of the proposed allocation site is classified as 'Excellent' in the Agricultural Land Classification, with a small portion identified as 'Very Good'.

6.9 The boundary of the proposed allocation has increased marginally from the Preferred Options Version fo the Local Plan (which allocated the site for 1,000 new homes). It is unclear how an additional 1,000 homes can be achieved on this site while maintaining the maximum housing density. Indeed, during the most recent call for sites, the land owner suggested 2,500 homes could be delivered on a significantly larger (172ha) site bound by Park Road and Shottendane Road to the south and stretching considerably further west than the proposed allocation. We therefore question whether this site is available, viable, sustainable or feasible within the plan period.

Manston Court Road (Policy SP18)

6.10 An additional 500 homes is proposed on agricultural land to the west of the Manston Court Road/Haine Road allocation. The majority is classified as 'Excellent' in the Agricultural Land Classification, with a small portion identified as 'Very Good'.

6.11 This site was promoted by the landowner in the most recent Call for Sites for "Between 751 - 667 dwellings (35 dph /30 dph). Site area: 31.33ha" however no evidence has been provided to confirm it is deliverable or achievable and the site was not assessed in the SHLAA.

Shottendane Road (Policy HO2)

6.12 This proposed allocation includes two rectangular sites on either side of Shottendane Road. The northern site is classified as 'Excellent' in the Agricultural Land Classification and the southern site is classified as 'Very Good'.

6.13 The southern area has not been put forward for redevelopment by the landowner, and has not been assessed in the SHLAA. There is therefore no evidence that the site is available, deliverable, sustainable or achievable. The 'northern' site was promoted by the landowner in the most recent Call for Sites for "maximum capacity of 364 homes at 35dph. Site area: 10.41 ha." No evidence is provided which demonstrates that the site is deliverable, sustainable or achievable.

7. Conclusion

7.1 The scale of housing need in Thanet is significant and is expected to increase. The historic rate of housing delivery is poor and housing need is very acute.

7.2 There is no question that the site comprises a suitable strategic housing site, as confirmed by the Council in their emerging Local Plan evidence base documents as well as the suite of information submitted to support Stone Hill Park's planning application. SHP's proposals are deliverable, viable and technically sound, and important alternative use to the DCO

7.3 The DCO application has resulted in the 'non designation' of the former Manston Aiprort in the emerging Local Plan, delaying the redevelopment of SHP's proposals which would otherwise deliver a large proportion of the District's housing need. The exclusion of Manston Airport from the Local Plan is causing TDC to rely on less sustainable greenfield sites to meet a substantial housing need, including sites of questionable deliverability.

Appendix I

Secretary of State Letter to Thanet District Council, 28th Jan 2019

GVA

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Ministry of Housing, Communities & Local Government

The Rt Hon James Brokenshire MP
Secretary of State for Housing, Communities and Local Government

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Councillor Robert W. Bayford
Leader, Thanet District Council

28 January 2019

LOCAL PLAN INTERVENTION

Following Thanet District Council's failure over many years to get a Local Plan in place, the former Secretary of State wrote to your Council, on 16 November 2017, to express his concerns. He offered an opportunity to explain any exceptional circumstances justifying the failure of your Council to produce a Local Plan and any measures you had taken or intended to take to accelerate plan publication. Following your letter of January 2018 outlining your exceptional circumstances, the former Secretary of State wrote again on 23 March 2018. He set out that he had considered your representations and the Government's Local Plan intervention policy criteria and had decided to continue with the intervention process by commissioning a team of experts led by Government's Chief Planner to provide advice on next steps.

I have carefully considered that advice on next steps and all the above matters. I have also considered correspondence sent to my Department since January 2018, including correspondence from Thanet District Council, which reported some positive actions and progress, including the publication of a Local Plan under regulation 19 of the Town and Country Planning (Local Planning) (England) Regulations 2012, the publication of a revised Local Plan production timetable[1] and the submission of a Local Plan under regulation 22 of the Town and Country Planning (Local Planning) (England) Regulations 2012.

Section 27(1) of the Planning and Compulsory Purchase Act 2004 ("the 2004 Act") provides:

[1] The Thanet Local Development Scheme (July 2018)

"This section applies if the Secretary of State thinks that a local planning authority are failing or omitting to do anything it is necessary for them to do in connection with the preparation, revision or adoption of a development plan document."

In view of your continuing failure to get a Local Plan in place I am satisfied that the requirements in section 27(1) of the 2004 Act are met; Thanet District Council (in its capacity as local planning authority):

- does not have an up-to-date Local Plan in place - the Council's last Local Plan was adopted in 2006 and covered a period up to 2011.
- has failed to meet the milestones in at least five Local Development Schemes since 2006.
- has failed to plan for and deliver the homes people need in Thanet.

Section 27(2) of the 2004 Act provides:

"The Secretary of State may—
(a) prepare or revise (as the case may be) the document, or
(b) give directions to the authority in relation to the preparation or revision of the document."

Pursuant to the powers in section 27(2)(b) of the 2004 Act I have decided to make a direction in relation to the preparation of the Thanet Local Plan:

Within four weeks of the date of this letter, I direct Thanet District Council to designate a lead Councillor and lead official to be responsible for progressing preparation of the Local Plan and to publish details of those designations.

In making this decision I have considered the following Local Plan intervention policy criteria[2]:

- **The least progress in plan-making has been made:** Out of 338 local planning authorities in England, Thanet are one of only circa 50 authorities who have not yet adopted a 2004 Act Local Plan under Regulation 26 of the Town and Country Planning (Local Planning) (England) Regulations 2012.

- **Policies in plans have not been kept up to date:** Thanet's last Local Plan was adopted in 2006 (not under the provisions of the 2004 Act), and covered a period up to 2011. Thanet have consistently failed to bring forward a Local Plan in accordance with its Local Development Scheme as legally required, having failed to meet Local Plan milestones in at least six Local Development Schemes since 2006.

[2] Local Plan intervention policy criteria were consulted on in 2016 and confirmed in the 2017 housing White Paper and the 16 November 2017 Written Statement in the House of Commons

- **There is higher housing pressure:** Thanet is within the top third of Districts in England for high housing pressure, based on average affordability ratios[3]. Thanet lack of a five-year housing land supply further highlights the authority's failure to plan for and deliver the homes people need.

- **Intervention would have the greatest impact in accelerating Local Plan production:** Based on Thanet's revised Local Development Scheme, it is unlikely that Local Plan production would be accelerated by my Department taking over its production. In my judgement, given the authority's track record of persistent failure in plan-making, the intervention I have decided upon will provide more certainty and is the best way of ensuring that a Local Plan will be produced in accordance with the Local Development Scheme timetable.

- **The wider planning context in each area in terms of the extent to which authorities are working co-operatively to put strategic plans in place:** Several authorities in Kent have indicated interest in joint planning but no formal arrangements are in place.

- **The wider planning context in each area in terms of the potential impact that not having a plan has on neighbourhood planning activity**: at least six communities in Thanet are preparing neighbourhood plans: Birchington, Ramsgate, Margate, Broadstairs & St Peters, Westgate and Cliffsend. Communities can bring forward neighbourhood plans in the absence of an up-to-date Local Plan, but doing so can be more challenging for communities.

Having considered Thanet's performance against the Local Plan intervention criteria, I am satisfied that intervention action is justified.

Section 15(4) of the 2004 Act provides:

"The Secretary of State may direct the local planning authority to make such amendments to the [local development] scheme as he thinks appropriate for the purpose of ensuring full and effective coverage (both geographically and with regard to subject matter) of the authority's area by the development plan documents (taken as a whole) for that area."

Pursuant to my powers in Section 15(4) of the 2004 Act, I am also directing Thanet District Council to, within eight weeks of the date of this letter, amend its Local Development Scheme (dated July 2018) to provide for the completion of a review of their Local Plan within six months of its adoption.

[3] Ranked 98 least affordable of 324 English Districts (Housing Affordability Statistics, Office of National Statistics, 2017)

This course of action would ensure full and effective coverage of housing provision to give clarity to communities and developers about where homes should be built.

Having considered all of the above, in my judgement, there is a compelling case for the Local Plan intervention actions I have decided upon in Thanet, pursuant to powers in sections 15(4) and 27(2)(b) of the 2004 Act. Given your recent actions and progress in meeting the requirements in the Town and Country Planning (Local Planning) (England) Regulations 2012, I have decided not to prepare the Thanet Local Plan. However I will continue to closely monitor your Local Plan progress. Should a significant delay occur against the milestones set out in your July 2018 Local Development Scheme, should you fail to comply with the directions in this letter or should your draft Local Plan fail at examination, I will consider whether to take further action to ensure that a Local Plan is put in place.

I am also, for the avoidance of doubt, now putting on public record my concerns about the low level of housing supply and delivery in Thanet. I expect planning decision-takers to have regard to these concerns as a material consideration when deciding local planning applications.

I appreciate the constructive way Thanet District Council have engaged in this process so far and I trust that you and your officers will continue to engage positively. My officials will be in touch over the next few days to discuss next steps.

RT HON JAMES BROKENSHIRE

Appendix II
Analysis of 'Option 2' Housing Sites in Draft Local Plan, October 2018

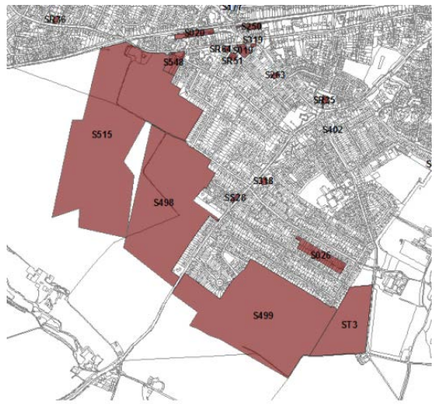
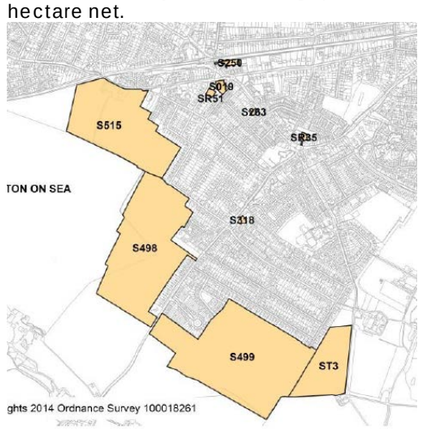
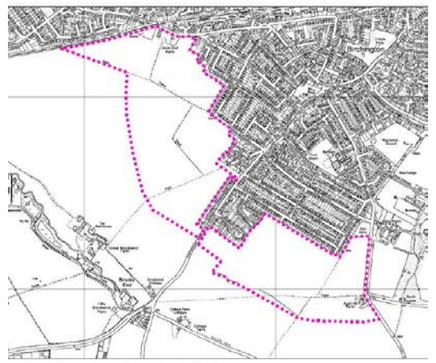
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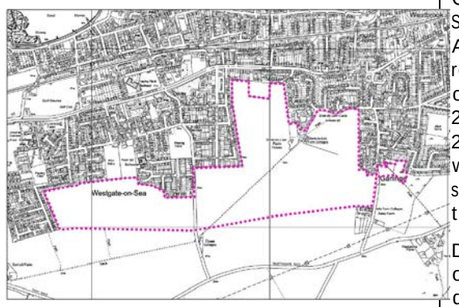
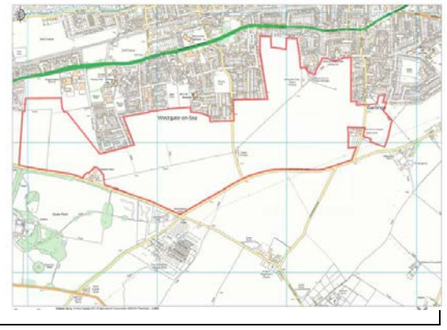
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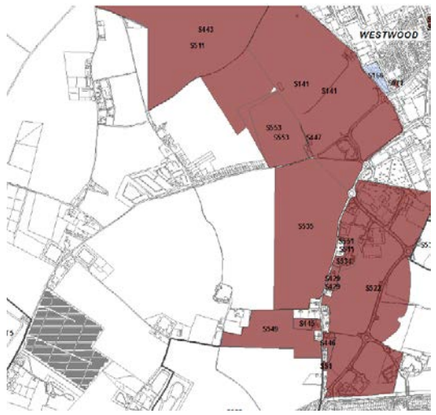
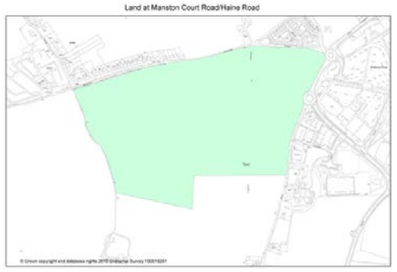
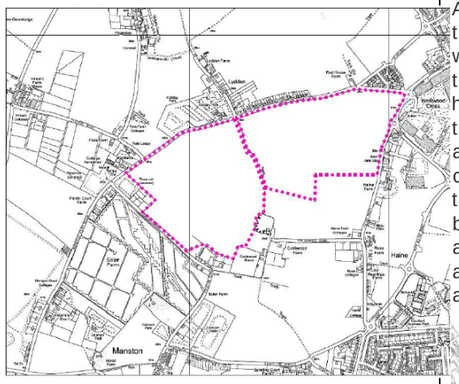
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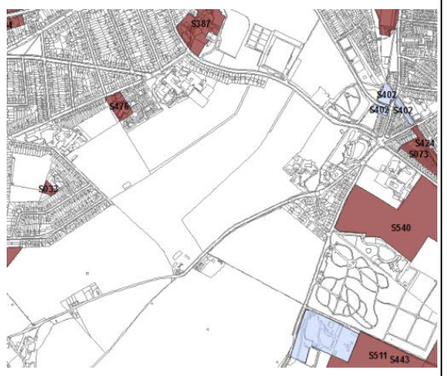
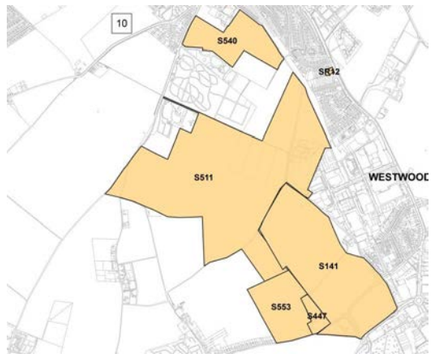
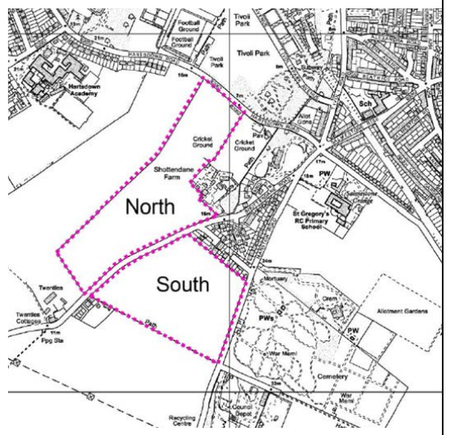
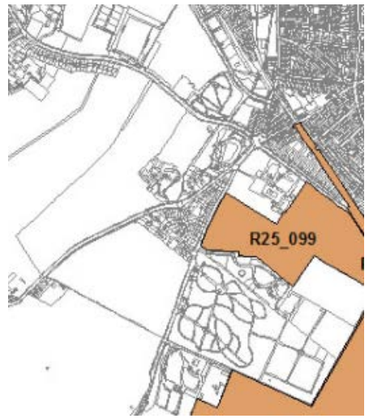
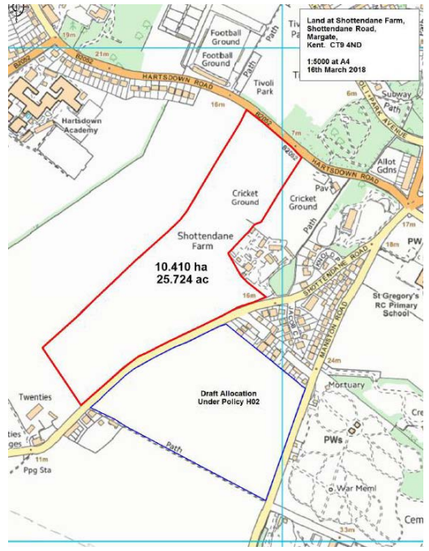
Analysis of ‘Option 2’ Housing Sites

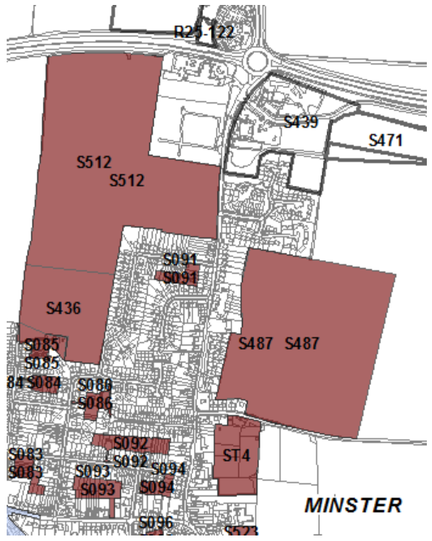
Draft Thanet Local Plan, October 2018

Site	SHLA (2013)	Preferred Options Local Plan (Jan 2015)	Proposed Revisions to Local Plan (Jan 2017)	Draft Local Plan August 2018	Representation
Birchington	S515: 560 home capacity S498: 456 home capacity S499: 800 home capacity 	Policy SP14 - Strategic Housing Site at Birchington (comprising sites referenced S515, S498 & S499). Land is allocated for up to 1,000 new dwellings at a maximum density of 35 dwellings per hectare net at Birchington. Policy H02C– Land fronting Park Lane, Birchington. (site reference ST3). Land fronting Park Lane, Birchington is allocated for up to 90 new dwellings at a notional maximum density of 35 dwellings per hectare net. 	None	Policy SP14 – Land is allocated for up to ~~1,000~~ 1,600 new dwellings at a maximum density of 35 dwellings per hectare net at Birchington.  Policy HO2 - Delete	The proposed allocation site comprises land classified as ‘Excellent’ in the Agricultural Land Classification. The revised allocation as part of the Draft Local Plan would result in the allocation of an additional 510 homes (not 600) as the proposed allocation incorporates Site ST3 which was already proposed for an allocation for 90 homes in the Preferred Options Local Plan (Policy H02C). It is unclear how the revised allocation would be sufficient to accommodate an additional 510 homes, particularly as the maximum density control proposed by Policy SP14 remains unchanged. The only additional area incorporated within the proposed allocation appears to be a 2.8ha triangle shaped site immediately west of site referenced S515 and 6.5ha of agricultural/greenfield land between S515 and S498. S515 Land at Gore End Farm was identified in SHLAA as having constraints: including contamination, listed buildings and potential landscape impacts. There is no evidence these can be mitigated. The triangular site west of S515 is not in the SHLAA and hasn’t been put forward for development by the landowner in the current or any previous call for sites. Deliverability is therefore uncertain. Additional homes are therefore only likely deliverable post 2026

Westgate-on-Sea	ST1: 1,040 home capacity ST2: 386 home capacity 	Policy SP15 - Strategic Housing Site at Westgate-on-Sea (comprising sites referenced ST1 & ST2). Land to the east and west of Minster Road, Westgate is allocated for up to 1,000 new dwellings at a maximum density of 35 dwellings per hectare net. (Preferred Options Local Plan, January 2015) 	None	Policy SP15 - Land to the east and west of Minster Road, Westgate is allocated for up to ~~1,000~~ 2,000 new dwellings at a maximum density of 35 dwellings per hectare net. 	The majority of the proposed allocation site is classified as 'Excellent' in the Agricultural Land Classification, with a small portion identified as 'Very Good' Outline planning permission for 24 units on ST1 was granted at appeal (OL/TH/16/1473). A comprehensive masterplan for the remainder of the allocated site has not come forward. There is only evidence that 24 units can be delivered between 2021-2026 (subject to reserved matters) and would be on the portion of the site already subject to a proposed allocation (and therefore not additional). During the most recent call for sites, the land owner suggested 2,500 homes could be delivered on a much larger (172ha) site than allocated, albeit they state that "the full area of the site would not be proposed for built form". 

Manston Court Road	S535: 840 home capacity Rest not assessed 	Not allocated	New Strategic Policy - Land at Manston Court Road/Haine Road. Land is allocated for a mixed use development, comprising up to 700 new dwellings at a maximum density of 30 dwellings per hectare net, and leisure uses. This allocation adjoins other sites allocated for residential development (strategic sites S141, S511, S553 & S447 and other housing sites S535 & S549). 	Policy SP18 - Land is allocated for a mixed use development, comprising up to ~~700~~ 1200 new dwellings at a maximum density of 30 dwellings per hectare net, and leisure uses. 	The proposed allocation site comprises land classified as 'Excellent' in the Agricultural Land Classification. A planning application for c. 850 homes on the eastern half of this proposed allocation was due to be submitted by Greenacre at the end of 2017, however no application has been submitted. Assuming a submission takes place in 2018, GVA's Housing Report assumes half of the dwellings (350 units) could be developed between 2021-26, with the remaining 350 dwellings developable between 2026-31. Nevertheless, site was already subject to a proposed allocation and cannot accommodate the additional allocations required.  The westernmost part of the proposed allocation was promoted by the landowner in most recent Call for Sites for "Between 751 - 667 dwellings (35 dph /30 dph). Site area: 31.33ha" No evidence has been provided to confirm it is deliverable or achievable. 

Shotten-dane Road	Not assessed in SHLAA 	Not allocated 	HO2 Additional Site - Land at Manston Road/Shottendane Road, Margate. Land is allocated for up to 250 dwellings at a maximum density of 35 dwellings per hectare net at Manston Road/Shottendane Road. 	Policy HO2 – Land is allocated for up to 300 dwellings at land north of Shottendane Road, and up to 250 dwellings at land south of Shottendane Road, at a maximum density of 35 dwellings per hectare net. 	Southern site not put forward by landowner for development. Not assessed in SHLAA. No evidence site is available, deliverable or achievable. The site comprises land classified as 'Very Good' in the Agricultural Land Classification.  'Northern' site promoted for landowner in most recent Call for Sites for "maximum capacity of 364 homes at 35dph. Site area: 10.41 ha" No evidence site is deliverable or achievable. The site comprises land classified as 'Excellent' in the Agricultural Land Classification. 

Tothill Street, Minster	S512: 347 home capacity S436: 85 home capacity 	Housing Site Allocation (in Appendix B) - Site Ref S512/S436/S85, identified for 150 homes.	Housing Site Allocation (in Appendix B) - Site Ref S512/S436, identified for 150 homes.	Housing Site Allocation (in Appendix B) - Site Ref S512/S436, Increase dwelling capacity to 250 homes.	No objections raised.
				Total **additional** homes proposed for allocation in 'Option 2'	+2,410 (Thanet District Council) or + 100 (GVA estimate based on evidence of availability/deliverability/feasibility)

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York Aviation

STONE HILL PARK LIMITED

UPDATED CRITIQUE OF ASSESSMENT OF THE NEED AND JUSTIFICATION FOR THE DEVELOPMENT OF MANSTON AIRPORT AS AN AIR FREIGHT HUB

REPORT

FEBRUARY 2019



York Aviation

Originated by: Louise Congdon/James Brass/Matt Jones/Richard Connelly

Dated: 13th February 2019

Reviewed by: Richard Kaberry

Dated: 14th February 2019

STONE HILL PARK LIMITED

ASSESSMENT OF THE NEED AND JUSTIFICATION FOR THE DEVELOPMENT OF MANSTON AIRPORT AS AN AIR FREIGHT HUB

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EXECUTIVE SUMMARY

1. York Aviation was appointed by Stone Hill Park Limited (SHP) in September 2017 to review the evidence presented by RiverOak Strategic Partners Limited (RSP) in connection with RSP's prospective application for a Development Consent Order (DCO) for the redevelopment and re-opening of Manston Airport as a hub for international air freight services, which also offers passenger, executive travel and aircraft engineering services. Our initial summary Report was published in November 2017 and the contents remain valid and relevant. It is included at **Appendix B** to this report for completeness.

2. Our November 2017 Report made clear that:

   - RSP's analysis of our earlier work for the Freight Transport Association (FTA) and Transport for London (TfL) was flawed and this work did not support RSP's conclusion that there would be a substantive or sustainable role for Manston in the UK air freight industry.
   - The remaining evidence relied on by RSP to justify its Need Case is almost entirely based on circumstantial evidence related to the shortage of airport capacity principally for passenger flights, that can also carry bellyhold cargo, in the circumstances where no additional capacity is provided at any of the London Airport. This is simply irrelevant particularly given that it is Government policy to promote the development of a third runway at Heathrow.
   - The analysis presented by Azimuth to support RSP's case shows a lack of understanding of the economics of the air freight market, especially in failing to recognise the economic drivers that prioritise the use of bellyhold capacity over dedicated freighters.
   - Manston's past operation was economically inefficient due to the inherent lack of viability. Reopening the Airport has no realistic prospect of success as there are more economically efficient alternatives available for any freight displaced from Heathrow in the short term, pending the development of a third runway.
   - Azimuth's 'forecasts' rely strongly on the attraction of an integrator but Manston is too peripheral for integrator operations serving the UK.
   - Azimuth's interview survey, used as further justification for RSP's freight movement forecasts, relies on a small list of mainly local companies with something of a vested interest in seeing Manston re-opened and does not provide a basis for the specific aircraft movement forecasts upon which the case relies, not least as it is not possible to relate the proposed services to be operated with the responses by the interviewees. There is simply no explanation for, or justification for, the services postulated by Azimuth. There is a total lack of credibility in the approach adopted.
   - To illustrate this lack of credibility of the forecasts, in Year 2 (the first operational year), a cargo throughput of nearly 100,000 tonnes is forecast by Azimuth. This would make Manston the 5th largest freight airport in the UK in its first year after re-opening. It would make Manston the 3rd busiest airport in the UK in terms of tonnage carried on dedicated freighter aircraft. This is simply not a credible proposition.
   - Proper analysis of the UK air freight market showed that there is plenty of freighter capacity at Stansted and East Midlands Airport to accommodate any growth required in dedicated freighter operations such that there will be no shortage of capacity across the UK and no role for Manston in accommodating traffic spilled from other airports. These airports are better located relative to the market and the key locations for distribution within the UK.

- Our estimate was that Manston would, at best, be able to attain 2,000 annual air cargo aircraft movements by 2040 and it is equally plausible that it might not achieve more than 750 such movements annually as operated when it was previously open.
- Our initial assessment of the passenger market was that the throughput might, at best, be around half of that projected by RSP and, hence, given the dependence on passenger related income for the financial viability of airport operations, this would impact substantially on the viability of the proposal.
- Our assessment was that the existing infrastructure at Manston Airport, if made good, would be capable of handling 21,000 annual air cargo aircraft movements. The actual usage of that capability would depend on the pattern of operation and how the infrastructure was used on a day by day basis.
- We also gave provisional consideration to the land required to accommodate future forecast demand. Without prejudice to our view that demand to use Manston is not likely to be anything like 17,171 cargo aircraft movements a year, we considered that the land required would be substantially less than shown on the RSP Master Plan and that the proposed land take is excessive and without justification in terms of the compulsory acquisition of the land, particularly given the inherent implausibility of the demand forecasts upon which the assessment was made.
- We could see no justification for the inclusion of the 'Northern Grass' area within the DCO on the basis of it being for associated development. There will be little requirement for or likelihood of the relocation of freight forwarding activity from adjacent to the UK's main cargo hub at Heathrow or elsewhere to Manston.
- Azimuth made errors in the assessment of the socio-economic implications of the proposed development, particularly in terms of the use of inappropriate multipliers, the assessment of impacts at a national scale, rather than the local scale in East Kent as implied by Azimuth, and should have taken displacement of activity from other UK airports fully into account, reducing the impacts well below those stated.

3. This report updates and adds to the analysis of the flaws in RSP's Need Case, as set out principally in the Azimuth Reports, as presented in our November 2017 Report. In practice, the Azimuth Reports are little changed and, to the extent that new material has been added, do not address or rectify the substantial errors that we identified in the analysis contained therein. We do also update consideration of Aviation Policy in the light of developments, including the formal designation of the Airports National Policy Statement (NPS) and the clear statement of intent regarding the third runway at Heathrow and its role in ensuring adequate air freight capacity for the foreseeable future.

4. Our overall assessment in November 2017 was that RSP's case lacked any real credibility. Nothing has fundamentally changed and to the extent that there have been changes, for example in the formal designation of the Airports NPS, any need for Manston is even less than we previously assessed.

5. In updating of our previous work, we have taken particular cognisance of the requirement for RSP to present a compelling case in the public interest to justify the compulsory acquisition of land. This goes beyond the theoretical test of the capability of the infrastructure proposed but must, necessarily, consider the likelihood and extent of the level of usage of that infrastructure and the extent to which there would be wider public benefit from the land being used in that way.

Aviation Policy

6. The whole of the RSP Need Case for the development of an air freight hub at Manston is based on the Azimuth Reports. A flawed interpretation of Aviation Policy is still set out in Azimuth's Volume I, which seeks to infer support for the development of a mainly freight airport at Manston based on the evidence before the Airports Commission of the potential damage to the UK economy if no additional hub airport capacity was provided at Heathrow (or a reasonable alternative to Heathrow). This was never a relevant basis for considering whether there was a case for re-opening Manston as a primarily air freight airport, as the vast majority of the economic benefit cited relates specifically to the benefits to passengers in the main using global passenger services from an expanded hub Heathrow – a need that Manston patently cannot and does not claim that it will be able to meet.

7. The clear decision by Government in favour of the building of an additional runway at Heathrow will transform capacity available to the air freight sector. There can be no doubt that the use by RSP of pre-NPS evidence on the need to address the shortage of airport capacity overall to serve London is misleading and incorrect. Properly interpreted, Government Aviation Policy makes clear that expansion of capacity at Heathrow, allowing more global air connections providing additional bellyhold capacity and scope, if required, for more dedicated freighter movements at Heathrow, is the identified means of meeting future air freight demand, along with the continued role for East Midlands and Stansted as air freight gateways with ample spare capacity.

Errors and Inconsistencies of Analysis

8. In this report, we have identified further inconsistencies and mathematical errors in the 'forecasts' presented by Azimuth and others in the RSP team to justify the proposed development at Manston. Whilst individually some of these errors and discrepancies might seem small in scale and impact, others are highly significant and serve to undermine the credibility of the whole approach outlined in the Azimuth Reports and throughout RSP's Application Documents. The combined implications are significant in terms of whether a) the application should actually have qualified as an NSIP; b) in terms of the level of demand that Manston might attract if it re-opened as an Airport and the viability of the proposed operation; and c) whether the environmental assessments undertaken are robust.

9. The most significant of these errors relate to:

- the lack of any soundly based forecasts – instead of forecasts based on an understanding of markets, costs and real potential, RSP's case is founded on a flawed list of airlines that it claims will definitely operate at Manston and then grow their business at Manston. Several of these airlines do not operate air freight services at all and others would be unlikely to operate to Manston for the reasons we set out. Hence, the list presented is no more than a 'guesstimate', without any supporting evidence. These are not 'forecasts' in the sense that is normally recognised in the industry;
- the lack of realism in the fleet mix overall and the assumed pattern of day/night time operations, particularly in relation to the implications for the prospect of integrator and mail operations being attracted to use Manston at all. This further undermines the credibility of the short term 'forecasts' as, contrary to what RSP claim, airlines would not be able to operate to Manston on an unconstrained basis to meet their own commercial requirements but would be so constrained during the night period as to make the majority of the operations claimed by Azimuth unviable for the airlines;

- the overstatement of longer term demand projections through the use of unjustified growth rates due to mathematical errors made by Azimuth.

10. These errors and inconsistencies render the so-called 'forecasts' completely unreliable as a basis for assessing the extent and nature of any usage of Manston in the event that the Airport re-opens.

Understanding the Air Freight Market

11. Examination of market trends and the structure of the air freight market make clear that there is no role for Manston, other than possibly as a niche cargo operation for ad hoc specialist consignments, as with its historic operation. The trend in favour of bellyhold for the carriage of general air freight is clear. This freight forwarding sector is heavily concentrated around Heathrow for this very reason and the associated consolidation activity essentially drives the choice of airport based on the most economical freight rates available for any consignment. This is highly unlikely to be a dedicated freighter option from an airport remotely located in East Kent.

12. R3 will provide for a doubling of air freight capacity at Heathrow, mainly in bellyholds of passenger aircraft, but also scope for dedicated freighters to the extent that these are required to feed the hub at Heathrow. Indeed, the ability to provide a step change in capacity for air freight was one of the principal reasons why the Government chose the specific proposal for the development of a new runway. Freight facilities at Heathrow are actively being modernised and extended in anticipation of the growth of cargo activity there.

13. The integrators are already well established at East Midlands Airport in particular, as well as using Heathrow and Stansted to serve the main markets in England. Manston is too far from the distribution centres along the M1/M6 axis to function as an integrator base, leaving aside that the proposed night movement restrictions would render any such operation unviable for the airline/integrator.

14. This leaves niche/specialist cargo operations as the only possible market for Manston. This would be consistent with the types of cargo that Manston used to handle. Ultimately, this is a very small market and unlikely to result in Manston handling more freighter movements than it did historically. This has profound implications for the Need Case as a whole, not least as it seems likely that any freighter activity would in fact need to be displaced from elsewhere through price incentives as there are few, if any, natural market drivers which would make Manston the first choice location, particularly given growth in bellyhold capacity at airports such as Manchester, Edinburgh, Birmingham and Stansted, plus available capacity for freighters particularly at East Midlands and Stansted Airports.

Air Passenger Forecasts

15. As with the asserted air freight 'forecasts', RSP/Azimuth provide no quantified analysis of the market to justify the passenger forecasts. The passenger element of the forecasts will be a vital element in considering the potential viability of the Airport as, generally, passenger operations offer higher margins for an airport than cargo operations given the ability to earn ancillary commercial revenues from shops and car parking. Furthermore, much of the asserted economic benefit from the Manston operation stems from passenger flights rather than cargo operations.

16. To assist the Examining Authority, we have set out in full our market assessment for passenger services at Manston. We have undertaken this analysis on the same basis as we would for any UK regional airport and presented it in a form that would be normal practice at an airport planning inquiry. Such analysis is completely missing from the Azimuth Reports.

17. Proper analysis of the market confirms that Manston is, at best, only likely to attract around half of the number of passengers claimed, without analysis, by Azimuth Associates over the 20 year period of the projections. This has inevitable implications for both the scale of facilities required and the viability of the airport operation as a whole. It is highly likely that attracting such services will require support from the public sector as well as highly discounted airport charges. Past experience would suggest that there would remain a high risk of the airlines failing to sustain the routes on a viable basis.

Infrastructure Requirements

18. Without prejudice to our view that demand to use Manston is not likely to be anything like 17,170 cargo aircraft movements a year, our analysis shows that the land required to accommodate such a number of movements would be substantially less than shown on the RSP Master Plan. The RSP Application Documents fail to set out any justification for the extent of facilities proposed by reference to their own 'forecasts' both for the core airport infrastructure and any claimed associated development on the Northern Grass.

19. To assist the Examining Authority, we have set out the basis for estimating the required number of stands and cargo terminal infrastructure to enable RSP's forecasts to be accommodated based on the times that airlines would wish to fly. This does, of course, confirm the extent to which there would be dependence on night flying. Based on proper analysis of airline operating patterns, the maximum number of Code E equivalent stands that would be required, even allowing a buffer for resilience, would be 10. Based on global benchmarks, the scale of cargo sheds could also be substantially reduced to no more than 1/3 of the size proposed by RSP. Overall, even in the highly unlikely event that RSP/Azimuth's 'forecasts' were realised, the overall scale of development required would be no more than of the order of 40% of that proposed in RSP's Master Plan to accommodate airlines at the times they would wish to fly. This is, of course, not the same as the theoretical capability of the existing or proposed infrastructure.

20. As far as the Northern Grass is concerned, the list of airport related uses provided in the Updated NSIP Justification by RSP is no more than a list of uses that may be required at an airport without any specific reference to whether they are actually needed at Manston or, indeed, the extent to which these uses would need to be accommodated in an airside location in any event. We can see no justification for the inclusion of the 'Northern Grass' within the DCO as associated development as there will be little requirement for the relocation of freight forwarding activity from adjacent to the UK's main cargo hub at Heathrow or elsewhere to Manston and any requirement for the facilities listed could be accommodated south of the B2050.

21. The development on the Northern Grass site appears to be speculative commercial development. The total extent of landside airport related uses at East Midlands Airport, other than hotels which do not feature as part of Manston's plans, is 13,000m^2, or 13% of the scale of development proposed for the Northern Grass by RSP. Hence, based on the precedent at East Midlands Airport – the UK's principal airport for pure freighter operations – the extent of development proposed for the Northern Grass means it would be expected to be largely for non-aviation related uses.

Viability

22. In the absence of any assessment of the Business Case for the development within the RSP Application Documents, we have undertaken an assessment of the potential viability to assist the Examining Authority to assess the likelihood of the development plan being implemented if consented.

23. Our analysis shows that the RSP proposals for Manston Airport are not commercially viable even based on their unreasonably optimistic traffic 'forecasts'. The Airport would remain in a loss making position for at least 15 years and generate a negative return on investment for more than 20 years. Fundamentally, the analysis of potential viability strongly suggests that no rational private sector investor would fund the re-opening of Manston Airport on the basis proposed by RSP as the development is likely to deliver negative returns to investment for the foreseeable future.

24. The Airport was never previously a financially viable operation and we see no reason for this to be any different in future. When properly analysed, there is little prospect of the operation generating sufficient revenues to cover the costs for the investors nor deliver any returns on the investment for the foreseeable future. In the absence of evidence to the contrary, it is our judgement that investment would not be forthcoming to the extent necessary to even secure the re-opening of the Airport.

25. Clearly, to the extent that traffic growth does not materialise as RSP envisage following the initial investment, it is clear that the financial position of the Airport would be materially worse. It is our assessment that, even if initial investment was forthcoming, which we doubt, it is inevitable that the Airport would close again in the medium term due to lack of inherent viability.

Overall Conclusion

26. Fundamentally, the whole Need Case for the development of Manston as an air freight hub is infected with flaws and errors of understanding such that the so-called 'forecasts' of air freight and passenger demand have no credibility at all. Even if they were credible, the scale of development proposed is unjustified and excessive. The development and operation of the Airport would simply be unviable and incapable of attracting competent investors.

1 INTRODUCTION

This Report

1.1 York Aviation (YAL) was appointed by Stone Hill Park Limited (SHP) in September 2017 to review the evidence presented by RiverOak Strategic Partners Limited (RSP) in connection with RSP's prospective application for a Development Consent Order (DCO) for the redevelopment and re-opening of Manston Airport as a hub for international air freight services, which also offers passenger, executive travel and aircraft engineering services. Our initial Summary Report was published by SHP in November 2017 and is appended to this report at **Appendix B** to assist the Examining Authority.

1.2 We subsequently provided comments on RSP's updated consultation materials in February 2018 and these were submitted as part of SHP's response to the consultation. This note is appended to this report at **Appendix D** to assist the Examining Authority.

1.3 In our original November 2017 report, as summarised in the Executive Summary, we made clear that:

i. RSP's quantified forecast of the number of dedicated freighter aircraft that Manston might attract was based almost entirely on our earlier work for the Freight Transport Association (FTA) and Transport for London (TfL) in 2015 and a note on Freight Connectivity for TfL in 2013. However, the analysis in these reports, when properly read, does not support RSP's conclusion that there would be a substantive or sustainable role for Manston in the UK air freight industry.

ii. The remaining evidence relied on by RPS as the basis of the Justification for the Application, set out in the Azimuth Reports, is almost entirely based on circumstantial evidence related to the shortage of airport capacity principally for passenger flights, that can also carry bellyhold cargo, in the circumstances where no additional capacity is provided at any of the London Airport (the Airports Commission's baseline position). Use of the economic costs to the UK if additional passenger hub capacity is not provided in the South East of England by 2050 is not relevant to the specific question as to whether there would be sufficient demand or any economic justification for dedicated freighter movements to be operated to/from Manston in the foreseeable future, particularly in the circumstance where it is Government policy to promote the development of a third runway at Heathrow.

iii. The analysis presented by Azimuth to support RSP's case shows a lack of understanding of the economics of the air freight market. Just because there could be excess air freight demand in 2050, compared to the bellyhold capacity available in the absence of further runway capacity at the UK's main hub, it does not follow that displaced bellyhold freight will seek a more expensive dedicated freighter service from an alternative airport over the use of available bellyhold capacity, even if available at a more distant airport, as this bellyhold capacity can be provided at a lower cost to the shipper with only a marginal penalty in terms of the overall shipment time.

iv. Fundamentally, Manston's past operation was economically inefficient due to the inherent lack of viability. Reopening the Airport has no realistic prospect of success as

there are more economically efficient alternatives available for any freight displaced to the extent that there are ongoing capacity constraints at Heathrow in the short and longer term.

v. The Manston freighter forecasts rely strongly on the attraction of an integrator but Manston is too peripheral for integrator operations serving the UK. Integrators have a strong preference for locations more centrally located in the UK with good road access to all of the major markets for ease of distribution. Manston is simply in the wrong place to serve the market being located at the far south east at the end of a peninsular, away from the main centres of population and remote from the majority of the UK.

vi. Azimuth's interview survey, used as further justification for RSP's freight movement forecasts, relies on a small list of mainly local companies with something of a vested interest in seeing Manston re-opened[1] and does not provide a basis for the specific aircraft movement forecasts upon which the case relies. If anything, the views of those interviewed by Azimuth suggest that there would, at best, be a limited role for Manston. The one airline interviewed made clear that *"success at Manston depended upon identifying a niche market and becoming known for excellence."* It did not identify what this niche market might be. These interviews confirm our view that any realistic expectation for Manston, at best, is for a small niche operation, as it previously sustained on a non-viable basis rather than as a general 'overspill' cargo airport for London.

vii. The outputs from these interviews are then used by Azimuth as a basis for postulating a number of cargo aircraft movements that might operate at Manston. However, it is not possible to relate the proposed services to be operated with the responses by the interviewees. There is simply no explanation for, or justification for, the services postulated by Azimuth. There is a total lack of credibility in the approach adopted.

viii. To illustrate this lack of credibility of the forecasts, in Year 2 (the first operational year), a cargo throughput of nearly 100,000 tonnes is forecast by Azimuth. This would make Manston the 5th largest freight airport in the UK in its first year after re-opening. It would make Manston the 3rd busiest airport in the UK in terms of tonnage carried on dedicated freighter aircraft. This is simply not a credible proposition.

ix. Our November 2017 Report contained an updated and further developed analysis of the UK air freight market from that previously undertaken in 2013 and 2015 for TfL and for the FTA. When properly interpreted, our forecasts of air freight demand and capacity across the UK as a whole, taking the role of bellyhold fully into account, show that, to the extent that there is <u>any</u> need for additional pure freighter movements, there is plenty of freighter capacity at Stansted and East Midlands to accommodate any growth. These airports are better located relative to the market and the key locations for distribution within the UK. Overall, we conclude from this analysis that there will be no shortage of capacity for dedicated freighter aircraft across the UK in the period up 2040 and that overspill from other airports would not provide a rationale for re-opening Manston.

[1] Not all of these companies are still in operation.

x. On any assessment of a realistic potential role for Manston, our estimate was that Manston would, at best, be able to attain 2,000 annual air cargo aircraft movements by 2040 and it is equally plausible that it might not achieve more than 750 such movements annually as operated when it was previously open. These are far below Azimuth's projection, upon which RSP rely, of 17,171 annual cargo aircraft movements.

xi. Our initial assessment of the passenger market was that the throughput might, at best, be around half of that projected by RSP and, hence, given the dependence on passenger related income for the financial viability of airport operations, this will impact substantially on the viability of the proposal. The other activities suggested by RSP, such as business aviation, maintenance, repair and overhaul, and aircraft dismantling are highly competitive markets and, to the extent that Manston might attract any such operations, these are unlikely to contribute substantially to the overall viability of the Airport.

xii. Our assessment was that the existing infrastructure at Manston Airport, if made good, would be capable of handling 21,000 annual air cargo aircraft movements. The actual usage of that capability would depend on the pattern of operation and how the infrastructure was used on a day by day basis.

xiii. We also gave provisional consideration to the land required to accommodate future forecast demand. Without prejudice to our view that demand to use Manston is not likely to be anything like 17,171 cargo aircraft movements a year, we considered that the land required would be substantially less than shown on the RSP Master Plan and that the proposed land take is excessive and without justification in terms of the compulsory acquisition of the land, particularly given the inherent implausibility of the demand forecasts upon which the assessment was made.

xiv. We could see no justification for the inclusion of the 'Northern Grass' area within the DCO on the basis of it being for associated development. There will be little requirement for or likelihood of the relocation of freight forwarding activity from adjacent to the UK's main cargo hub at Heathrow or elsewhere to Manston.

xv. Azimuth made errors in the assessment of the socio-economic implications of the proposed development, particularly in terms of the use of inappropriate multipliers, the assessment of impacts at a national scale, rather than the local scale in East Kent as implied by Azimuth, and should have taken displacement of activity from other UK airports fully into account, reducing the impacts well below those stated.

xvi. Our overall assessment was that RSP's case lacked any real credibility.

1.4 In practice, there have been no substantive changes to the case being presented by RSP since our original report was prepared. Hence, we consider that the contents of our original report and the subsequent note remain valid and should be given full consideration by the Examining Authority. We do not repeat their contents here but this updating report should be read alongside our previous reports, which are appended to this report at **Appendices B** and **D**[2]. It remains the case that RSP's assessment of the need for the development of a specialist air freight airport at Manston lacks credibility and is not founded in any proper assessment of the market as would normally be expected for a planning (or development consent) application of this magnitude.

1.5 In this report, we will highlight the key ongoing shortcomings in the Need Case being presented by RSP, drawing on our earlier reports and updating the material contained therein where necessary, in particular relating to:

- the implications of the Airports National Policy Statement (NPS) and emerging Government Policy as set out in the Aviation Strategy Green Paper[3];
- the updated performance of the UK Air Freight Sector and future trends;
- additional or revised material made available in the RSP Application Documents.

1.6 To assist the Examining Authority, this report also sets out, in more detail, our assessment of realistic passenger demand forecasts and on the implications of the assessment of the air freight market and passenger demand forecasts for the viability of the Airport, which were not previously covered in our 2017 Summary Report.

1.7 Fundamentally, this report goes beyond the work previously submitted to examine whether there is a compelling case in the public interest for the development of an air freight hub at Manston by reference to our assessment of the market and need for the development and in the light of recently emerging Government Aviation policy. The test that needs to be met is a more stringent test than simply whether the infrastructure proposed would deliver a theoretical capability greater than the threshold set out in the Planning Act 2008. It requires consideration of:

- the levels of demand that are likely to use Manston – this goes beyond consideration of the capability of the infrastructure proposed and requires consideration of whether the infrastructure is likely to be used and how this usage contributes to efficiently meeting the national demand for air transport;
- the implications of those levels of usage for the likelihood that the development and operation of the Airport would be viable and sustainable over the longer term, having regard to the requirement to fund the development of the infrastructure in the first instance;
- whether the land proposed to be acquired is required to meet realistic levels of demand.

[2] To assist the Examining Authority, we have included an updated index of the references to the final Azimuth Reports in **Appendix C**.

[3] Aviation 2050, The Future of UK Aviation, a Consultation, Department for Transport, Cmnd 9714, December 2018

1.8 In this report, we highlight further the deficiencies in the evidence presented by RSP to support its case, in particular the continued absence of detailed analysis and justification from RSP relating to the need for the development within the Application Documentation. It remains our view that the deficiencies in the evidence are not capable of remedy or, if remedied, would confirm our previous conclusion that the case for the re-opening of Manston as an operational commercial airport on a viable or sustainable basis lacks foundation.

1.9 In this Report, we consider:

- whether there is aviation policy support for the development **in Section 2**;
- errors and inconsistencies in the case presented by RSP in **Section 3**;
- understanding the air freight sector in **Section 4**;
- realistic forecasts of air passenger demand in **Section 5**;
- the justification for infrastructure required to support those forecasts in **Section 6**;
- the implications for the viability of airport operations in **Section 7**;
- our conclusions in **Section 8**.

York Aviation Credentials

1.10 York Aviation LLP is a specialist air transport consultancy that focusses on airport planning, demand forecasting, strategy, operation and management. The company was established in 2002. We offer a broad range of services to airports, airlines, governments, economic development organisations and other parties with an interest in air transport. Our team is a mixture of experienced air transport professionals and economists. Key members of the team have substantial experience of airport operations and development gained through working for Manchester Airports Group. Our core services include:

- business planning and strategy;
- capacity and facilities planning;
- master planning and planning application support;
- demand forecasting;
- economic impact assessment and economic appraisal;
- policy and regulatory advice;
- route development;
- transaction support.

1.11 Our current and recent clients include:

- Department for Transport (DfT), in particular producing supporting studies published by DfT alongside the Airports NPS and Aviation Strategy Green Paper
- Transport for the North, including recent work on the linkage between aviation connectivity and trade (with Oxford Economics);
- Transport Scotland and Scottish Enterprise;

- Civil Aviation Authority;
- London City Airport in relation to updating its Master Plan;
- London Luton Airport in relation to its prospective DCO;
- Manchester Airports Group, including economic impact assessments of East Midlands and Stansted Airports;
- Birmingham Airport;
- Glasgow Airport;
- Regional and City Airports;
- Ryanair.

In addition, we work for numerous investors in airports and other parties with an interest in the development, operation and management of airports in the UK and abroad. This includes the development of business plans, the assessment of viability and the broader business case for investment.

1.12 We previously did work for Transport for London and the Freight Transport Association related to submissions to the Airports Commission in connection with the requirement for a new hub airport serving London and the South East. This included analysis of the UK air freight market. This is work upon which RSP seeks to rely but, as made clear in our 2017 Summary Report, this reliance is misplaced and betrays a misunderstanding of air freight market and the implications of our findings in terms of any potential role for Manston in the event of capacity constraints at Heathrow and the main London airports.

1.13 Louise Congdon, Managing Partner of York Aviation has provided evidence in relation to the need for and economic impact of airport development at several airport public inquiries, including Manchester Runway 2, Liverpool Airport, Doncaster Sheffield Airport, Stansted Airport Generation 1, Farnborough Airport, London Ashford Airport (Lydd) and London City Airport. Louise has been actively involved in the development and implementation of UK Aviation Policy since the 1980s and acted as adviser to the House of Commons Transport Select Committee from 2011 to 2014. Her CV is appended at **Appendix A.** Louise has been assisted by other members of the York Aviation team in compiling this and the previous reports.

2 DOES AVIATION POLICY SUPPORT THE NEED FOR MANSTON?

In this section, we show that RSP and Azimuth's claims that development of Manston as an air freight hub are supported by Aviation Policy is flawed. The claims rely largely in the position set out by the Airports Commission in the event of no additional capacity being provided at any of the main London airports. This is no longer valid, if indeed the inferences drawn by Azimuth and RSP ever were, in the light of the clear Government Policy in support of the provision of a third runway at Heathrow as set out in the Airports National Policy Statement.

The Basis of RSP's Need Case

2.1 RSP's Statement of Reasons, Planning Statement and Environmental Statement include sections on the justification or need for the proposals but these rely entirely on the work of Azimuth Associates[4]. Azimuth Associates set out that their work seeks to address three questions[5]:

- *"Does the UK require additional airport capacity in order to meet its political, economic, and social aims?*
- *Should this additional capacity be located in the South East of England?*
- *Can Manston Airport, with investment from RiverOak, relieve pressure on the UK network and meet the requirement of a nationally significant infrastructure project?*

As we made clear in our November 2017 Report (paras 2.5 to 2.7), these are not the right questions to be addressed in terms of whether there is a specific need for the development of a dedicated air freight hub at Manston sufficient to make a compelling case in the public interest.

2.2 RSP's Need Case appears to be as follows:

- aviation is important to the national economy and will become more important post-Brexit;
- there is a shortage of airport capacity in the South East of England, ignoring the impact of the development of a third runway at Heathrow (R3) and other committed or proposed expansions of capacity at the other London airports;
- pure freighter traffic has not been growing in the UK due solely to shortage of airport capacity;
- so there must be a need for a dedicated freight airport to address this shortfall;
- Manston has spare capacity so could fulfil that role.

[4] We are unaware of any other published reports by Azimuth Associates and are unclear of the extent of their relevant experience across the aviation sector more generally.
[5] Azimuth Report Vol I, para. 1.3.1.

2.3 In practice, the RSP Application Documents, including the Statement of Reasons, continue to rely on circumstantial evidence, references and quotations relating to the need for more air passenger connectivity, the economic benefits of addressing that need, and the need for a hub airport in the South East of England as evidence to support their case. As we set out at length in our November 2017 Report, most of these references are irrelevant to the asserted need for a dedicated air freight hub as most of the economic benefits cited relate specifically to passenger connectivity through more global air service connections offering passenger and bellyhold[6] freight capacity. Many of the reports and quotations have been misconstrued or misrepresented by the RSP team. We do not seek to address each and every erroneous reference in this Report. Circumstantial evidence supporting the need for more airport capacity in the South East of England simply does not provide specific justification of the need for the development of Manston as a dedicated air freight hub sufficient to make a compelling case.

2.4 Indeed, the Planning Statement itself (para 1.47), sets out the key test, namely that:

"Significant weight should be attached to the considerations of need and the weight to be attributed to need in any given case should be proportionate to the anticipated extent of the Manston Airport Project's contribution to meeting that need"

The extent to which the Manston Airport Project would contribute to meeting that need can only be assessed by reference to the reasonably expected usage of the Airport, if it re-opened, and does not follow from a general description of the situation appertaining across the London Airport system if a third runway at Heathrow is not constructed. This assessment requires a proper examination of the air cargo market, which does not support that the contention that there is a role for Manston in meeting the need for more air freight capacity in the UK as we set out later in this report.

2.5 The work of Azimuth Associates is also stated in other Application Documents to set out not only the need for development but also the Business Plan and the viability of the development[7]. Such an assessment of the Business Plan for the operational airport would be normally expected to include financial projections, the wider business case and an assessment of viability but this is completely absent from any of the documents submitted by RSP. We return to the business case and viability in **Section 7**.

2.6 As explained in detail in our Summary Report of November 2017, we consider the report by Azimuth Associates to be infected by manifest flaws, including in its interpretation of our earlier work for Transport for London (TfL) and the Freight Transport Association (FTA). Despite providing detailed rebuttal of the interpretation of our work by Azimuth Associates in consultation responses submitted by Stonehill Park, many of the RSP Application Documents continue to misrepresent the conclusions of our work as the basis of their case. We do not repeat these criticisms here[8] but, in this section, we comment more generally on the overarching aviation policy case being made by RSP drawing on our understanding of the Government's aviation policy as set out in the Airports NPS and Aviation Green Paper. We address the implications of the errors and inconsistencies in the Azimuth Reports further in the next section.

[6] Bellyhold capacity is capacity for air freight on passenger aircraft, typically below the passenger deck.
[7] RSP Environmental Statement (ES) para. 3.3.275, RSP Planning Statement para. 9.35.
[8] These are set out in full in Section 2 of our November 2017 Report.

Aviation Policy

2.7 RSP's Planning Statement includes the extraordinary statements (paras 9.16 and 10.6) that:

"The APF[9] makes it clear that it is not appropriate to re-examine the need for increased aviation capacity or, indeed, to question the Government's clear policy position that increases in aviation capacity are necessary and that they bring significant benefits. It states that it is the purpose of national policy to settle these issues."

"Government policy on aviation makes it clear that it is not appropriate to re-examine the need for increased aviation capacity or, indeed, to question the Government's clear policy position that increases in aviation capacity are necessary and that they bring significant benefits"

This appears to be an attempt to suggest that there is no requirement to examine the specific need case for development at Manston or, indeed, any other airport. This is patently nonsense as it would suggest that airport development across the UK should proceed unfettered regardless of whether there is any underpinning justification for each specific development or a proper balancing of benefits and environmental costs in each individual case. The apparent absurdity of this suggestion is even greater when compulsory acquisition of land is in prospect requiring a compelling case in the public interest to be made.

2.8 The Airports NPS[10] sets out clearly, in Sections 2 and 3, the Government's settled approach to meeting the need for increased airport capacity in the South East of England by provision of a third runway at Heathrow (R3), such that the need for that specific development as a response to the economic need for growth in aviation capacity is established. However, this is not the case for other proposed airport capacity developments. Indeed, the NPS is specific as to its applicability in relation to all other airport developments (para 1.41):

"The Airports NPS does not have effect in relation to an application for development consent for an airport development not comprised in an application relating to the Heathrow Northwest runway, and proposals for new terminal capacity located between the Northwest Runway at Heathrow Airport and the existing Northern Runway and reconfiguration of terminal facilities between the two existing runways at Heathrow Airport. Nevertheless, the Secretary of State considers that the contents of the Airports NPS will be both important and relevant considerations in the determination of such an application, particularly where it relates to London or the South East of England. Among the considerations that will be important and relevant are the findings in the Airports NPS as to the need for new airport capacity and that the preferred scheme is the most appropriate means of meeting that need." (emphasis added)

[9] Aviation Policy Framework, Department for Transport, March 2013, Cm8584.
[10] Department for Transport, June 2018.

2.9 This means that the NPS cannot be construed as creating a general presumption in favour of schemes, other than the Northwest Runway at Heathrow, which seek to address the shortfall in airport capacity within the South East of England. In fact, the wording of the NPS suggests the exact converse is true. Hence, it is not sufficient to rely, as RSP seek to do, on any general presumption in favour of increasing airport capacity for the broader economic benefit. Rather, the proponent of any other airport development proposal is required to justify that proposal by reference to the NPS and the specific benefits to users and society more generally that would arise from the specific proposed expansion.

2.10 RSP's Need Case is, in essence, based on the position before the NPS was designated[11]. Indeed, para 9.18 of the Planning Statement refers specifically to and relies on para 2.12 of the NPS that outlines the capacity shortfall that would exist in the absence of any additional capacity in the South East as a context for the Government's decision to support the development of another runway at Heathrow. This is a recurrent theme throughout the RSP documents, which seek to rely on the implications of no additional capacity being provided at Heathrow or, indeed, any of the other main London airports. Hence, in the light of proposals to increase capacity across the London airports, including the provision of R3 at Heathrow and recently approved capacity increases at Stansted, the alleged capacity shortfall on which RSP's case is based no longer exists. We discuss the extent to which there remains a capacity shortfall for air freight further in **Section 4**.

2.11 There is recurrent use by RSP of data relating to the economic cost of not addressing the need for additional hub airport capacity for passenger services and the benefits of overcoming that constraint[12], implying that the economic and connectivity benefits that are cited in respect of a passenger hub could, in some way, be realised by the development of Manston as a dedicated air freight hub. This creates a misleading impression of the specific benefits that the scheme might bring even if it did develop an air freight role, which we address further in later sections.

2.12 Despite the settled policy in terms of the Government's preferred option for meeting the principal need for more airport capacity in the South East of England, RSP's case remains that there is a shortage of airport capacity in the South East of England and that there must, therefore, be a need for a freight focussed airport in the South East to meet the need for more air freight capacity. This no longer follows if, indeed, it was ever a logical conclusion that could have been drawn from the evidence. The NPS settles how Government intends the shortage of airport capacity in the South East of England to be addressed, particularly in terms of meeting the requirement for additional capacity for air freight:

"The Heathrow Northwest Runway scheme delivers the greatest support for freight. The plans for the scheme include a doubling of freight capacity at the airport."[13]

2.13 Indeed, it is relevant that the Airports Commission[14] made clear one of their reasons for recommending the choice of a third runway at Heathrow over the option of a second runway at Gatwick was because:

[11] For example, Azimuth Reports Vol I, paras. 2.1.4, 2.1.5, 4.4.1, 4.4.5, 4.4.7, 9.0.4, 9.0.5.

[12] For example, the RSP Planning Statement, para 1.9 refers to work by Oxford Economics and Ramboll for Transport for London 2013 (see Azimuth Report Vol I, para. 4.4.1) which clearly relates to DfT's capacity constrained scenario.

[13] Airports NPS, Department for Transport, June 2017, para. 3.73.

[14] Airports Commission: Final Report, July 2015, Executive Summary, page 24.

"Gatwick's position to the south of London limits its effectiveness as a national freight hub."

Clearly, such considerations would apply even more so to Manston, which is even further away from the main centres of population, the sources of freight requiring shipment and the location of the main air freight consolidation and distribution centres adjacent to Heathrow and in the 'golden triangle' for distribution in the East Midlands.

2.14 Hence, references at para. 6.28 of RSP's Planning Statement to paras. 2.7 and 3.23 of the NPS as providing underpinning justification for the provision of a dedicated freight airport are misplaced as these clearly provide a context for the importance attached to meeting growing demand for air freight in the Government's decision to support the Heathrow Northwest Runway option as providing the scope for the greatest growth in air freight capacity including both bellyhold services and the opportunity for additional dedicated freighters.

2.15 A doubling of air freight capacity at Heathrow would allow for at least 31 years of extrapolated growth based using the updated analysis of future air cargo[15] tonnage growth potential set out in **Section 4**, assuming Heathrow sustains its current share of the market. We discuss the future of the market and trends further in that section. On the basis of realistic projections of cargo tonnage growth and the availability of capacity at Heathrow, it is hard to see how there is likely to be any shortfall of in air freight capacity in the South East of England for the foreseeable future, leaving aside the shorter term implications of capacity constraint at Heathrow until R3 is operational, which we also discuss further in **Section 4**.

2.16 RSP also seek to rely (Planning Statement, para 6.65) on the policy promoting best use of runway capacity at all UK airports, published alongside the Airports NPS[16]. This does not, however, settle that it will always be the case that best use should be made of any given runway, nor that runways should be protected in perpetuity as implied by the RSP's Statement of Reasons (para. 9.56). The policy, as set out in the 'Making Best Use' document, is clear that whilst there is a policy presumption in favour of making best use of existing runways, each case falls to be considered on its merits (para 1.29):

"We therefore consider that any proposals should be judged by the relevant planning authority, taking careful account of all relevant considerations, particularly economic and environmental impacts and proposed mitigations."

[15] Cargo includes freight and mail.

[16] Beyond the Horizon, The Future of UK Aviation, Making Best Use of Existing Runways, Department for Transport, June 2017.

2.17 Whilst this paragraph refers specifically to local decision making rather than an NSIP, the NPS makes clear that there is no automatic presumption of need for any other airport NSIP within the South East of England. There is, hence, still a requirement for a full justification to be provided for the best use of existing runway capacity at any individual airport on its own merits in terms of the demand it may reasonably be expected to handle and the benefits to consumers (or shippers) of using that airport rather than other available capacity. It is not sufficient to seek to make the case based on an inference of some general shortfall of capacity across the South East. Re-opening a runway only for it to be little used in practice does not constitute an economically efficient usage of that runway and so would not be likely to equate to 'best use'. There is a requirement for specific justification of how the capacity would be used and the benefits flowing from that usage at the airport in question rather than generic estimates of the economic value of overcoming the capacity constraints at the UK's main passenger hub airport that are peppered throughout the RSP documents and upon which RSP seek to rely for the substance of their need case.

2.18 More recently, the Government published a Green Paper on Aviation Strategy[17] as a pre-cursor to an updated strategy later in 2019. The section on air freight (paras. 4.45-4.50) makes clear that the three principal air freight airports are Heathrow, East Midlands and Stansted, highlights the doubling of air freight capacity that R3 at Heathrow will provide and stresses the key role that night flying plays in the air freight industry. The section also makes clear the role these airports play in meeting the need for air freight from across the whole country, i.e. it does not follow that because air freight is carried from a London airport that the freight has an origin or destination in the South East. This is relevant to consideration of alternatives, as we go on to discuss in **Section 4**.

2.19 It should be noted that the need for a dedicated freight focussed airport was previously considered in the Future of Air Transport White Paper in 2003, which stated, in relation to a proposal for a dedicated freight airport at Alconbury (arguably better located in relation to the total UK market than Manston being close to the A1M in north Cambridgeshire):

"The concept of Alconbury as a specialist freight facility attracted little support, especially from within the industry."[18]

Alconbury at the time was owned by Prologis (distribution experts) and BAA Lynton (airport developers) but they chose not to promote Alconbury as a freight airport. There are reasons why this is so, related to the complex inter-relationship between the freight forwarding sector, consolidation of freight loads, use of bellyhold capacity and the residual role of pure freighter operations that we explain further in **Section 4**. We have seen no analysis by RSP or Azimuth as to whether this position has changed, nor can we find specific policy support for a dedicated freight airport in more recent Government policy documents or consultations.

2.20 Indeed, in the same 2003 policy document, the Government set out its consideration of the potential role for Manston:

[17] Aviation 2050, The Future of UK Aviation, A Consultation, Department for Transport, December 2018, Cm 9714.

[18] Department for Transport, Future of Air Transport White Paper, December 2003, para 11.105

"11.98 The operators of Southend, Lydd and Manston argue that their airports could grow substantially and each has plans for development. The potential of other airports, including, Shoreham, and Biggin Hill, should also not be overlooked.

11.99 We consider that all these airports could play a valuable role in meeting local demand and could contribute to regional economic development. In principle, we would support their development, subject to relevant environmental considerations.

Had the Government considered there was a need for Manston as a specialist air freight airport at the time, it would have said so, not least as, in 2003, Manston was the UK's 7th busiest airport in the UK for air freight after Heathrow, Gatwick, Stansted, East Midlands, Manchester and Prestwick.

2.21 Nor can RSP take comfort from the work of the Airports Commission in considering whether there is a role for reliever airports[19] to add weight to there being a potential role for a dedicated air freight hub. The discussion in the Airports Commission Interim Report[20] dealt with the potential role of smaller airports in acting as relievers to capacity pressure at the main London airports principally for general and business aviation, which makes up a minor part of the RSP case. Indeed, the specific reference to Manston in Appendix 2 (page 16) to the Interim Report makes clear any consideration given to a potential role for the Airport was within the context of the Commission's broader consideration of reliever airports as referred to above rather than any specific role as a dedicated freight airport. Manston was promoted by its then owner, Infratil, to the Airports Commission as having potential as a major cargo hub airport but this was not taken up by the Commission.

Treatment of Alternatives

2.22 As noted in para. 2.9 above, it is notable, therefore, that the Application Documents, including the ES, contain no proper assessment of the ability of capacity that is, or will be, available at the London airports and across the UK to accommodate the asserted air freight demand that could be attracted to Manston by way of a full assessment of the alternative ways of meeting that demand. RSP's case is wrongly based on the position without the provision of additional capacity at any of the other London airports and is, incorrectly, based on a presumption that air freight currently being flown from the London airports reflects demand for air freight based within the South East; neither of which is valid. Hence, there should have been an assessment of the alternatives available for handling any excess demand for air freight rather than the simply considering whether there are alternative locations for the asserted requirement for a specialist freight airport (ES para. 2.3.3) within the South East of England. It is asserted, but not evidenced, that there are no alternatives to handle air freight growth. This is patently wrong as examination of the UK air freight sector demonstrates as set out in **Section 4**.

[19] RSP Planning Statement, paras. 6.67 to 6.71.

[20] Airports Commission, Interim Report, November 2014, paras. 5.96 to 5.100

Conclusions

2.23 The whole of the RSP need case for the development of an air freight hub at Manston is based on the Azimuth Reports. A flawed interpretation of Aviation Policy is set out in Azimuth's Volume I, which seeks to infer support for the development of a mainly freight airport at Manston based on the evidence before the Airports Commission of the potential damage to the UK economy if no additional hub airport capacity was provided at Heathrow (or a reasonable alternative to Heathrow). This was never a relevant basis for considering whether there was a case for re-opening Manston as a primarily air freight airport, as the vast majority of the economic benefit cited relates specifically to the benefits to passengers in the main using global passenger services from an expanded hub Heathrow – a need that Manston patently cannot and does not claim that it will be able to meet.

2.24 The clear decision by Government in favour of the building of an additional runway at Heathrow will transform capacity available to the air freight sector. There can be no doubt that the use by RSP of pre-NPS evidence on the need to address the shortage of airport capacity overall to serve London is misleading and incorrect. Properly interpreted, Government Aviation Policy makes clear that expansion of capacity at Heathrow, allowing more global air connections providing additional bellyhold capacity and scope, if required, for more dedicated freighter movements at Heathrow, is the identified means of meeting future air freight demand, along with the continued role for East Midlands and Stansted as air freight gateways.

3 ERRORS AND INCONSISTENCIES IN THE EVIDENCE PRESENTED BY RSP

In this section, we catalogue ongoing errors of analysis and the lack of supporting information which render the 'forecasts' presented to underpin RSP's application wholly unreliable. Indeed, they are not 'forecasts' in any meaningful sense given the absence of proper analysis of the market and any evidenced assessment of the extent to which Manston might capture any share of that market at any future date.

At best, the projections set out in Azimuth Vol III represent no more than an aspirational 'wish list' of what RSP would like to be able to attract to use Manston but, even then, this 'wish list' is infected with errors in terms of airlines that do not operate freighter aircraft, and patterns of operation, particularly in terms of the balance of movements between day and night time, that are wholly inconsistent with the patterns of operation that the airlines would require if they were even to consider operating some flights to Manston.

The Azimuth Reports

3.1 The Azimuth Reports are, in practice, little changed from those published for the supplementary consultation in January 2018, which we had previously commented on in our November 2017 Report and Supplementary Note of February 2018. In our original Report, we commented on the lack of realism in the so-called 'forecasts' for Manston and highlighted the lack of methodological rigour, particularly in relation to the adoption of the 'Delphic Approach'[21]. Azimuth have subsequently claimed that their forecasts have been subject to a peer review by Loughborough University[22] but this review has not been made available as would be normal good practice. It remains the case that the freight aircraft movement and tonnage forecasts, along with the passenger forecasts, set out by Azimuth have not been correctly derived from market data or using standard industry analytical techniques as would be normal practice in presenting the case for a planning or development consent application. As such, they cannot be relied on.

3.2 Furthermore, we have noted further errors in the use of data and information by Azimuth as well as further inconsistencies between the information presented in the four Azimuth volumes and material relied on in the Environmental Statement. These errors and inconsistencies go to the heart of the reliance that can be placed on RSP's need case for Manston. Indeed, the nature of the errors is such that the 'forecasts' are simply not realistic or achievable.

3.3 In this section, we highlight a number of areas where the information relied on by RSP is:

- unsupported by the evidence of how the airfreight sector actually operates;
- infected by mathematical errors;
- inconsistent;
- wrongly applied to the local market.

[21] York Aviation Report, November 2017, paras. 2.77-2.79.
[22] Azimuth Vol III, para. 2.1.6.

Air Freight Forecasting

3.4 There are two principal problems with the air freight demand forecasts presented by Azimuth:

- the absence of any justification for the short term forecasts for the first 10 years of the proposed airport operation;
- erroneous use of growth rates from other industry or Government publications to project forward from Year 10 to Year 20.

We set these issues out in some detail in our November 2017 Report (Section 2) and do not repeat them all here. In combination, these issues render the so-called 'forecasts' meaningless and misleading.

3.5 At the outset, any forecasts for air freight growth need to be seen within the context of deceleration of growth trends in the face of economic uncertainty. This has recently been reported as a concern by the airport's trade body, ACI EUROPE.[23]

Short Term

3.6 It is notable that the Azimuth Reports provide no detail or justification for the forecasts of air cargo aircraft movements by type, airline or world region for the first 10 years of the forecast period. The 'forecasts' are based on unevidenced interviews and indications of the types of markets which Manston might hope to serve[24]. This is simply not a sound basis for establishing the need for Manston. Similar issues infect the passenger forecasts, which we discuss further in **Section 5**.

3.7 The basis for the markets which it is claimed that Manston might serve appears to be comments such as:

"The Indian subcontinent is also a potential exporter and importer of goods to the UK. One interviewee mentioned the potential for airlines from Pakistan to use Manston Airport (Securitas). Pakistan mainly exports clothing and imports consumer goods."[25]

[23] ACI EUROPE, https://www.aci-europe.org/media-room/mediaroom.html, Press Release 6.2.19.
[24] Azimuth Reports Vol III, para. 3.2.1. We note that most of the interviewees were local haulage firms or similar, some of which are no longer in business. The interviews do not directly relate to the list of airlines that it is claimed might operate.
[25] Azimuth Reports Vol II, para. 4.2.37

3.8 There is a further list of possible geographic markets set out at para. 5.2.5 of Azimuth Vol II and then a discussion of sectoral markets which might offer opportunities for growth in air freight. However, none of this represents an assessment of the likelihood of dedicated freighter services operating at Manston but represents a generic discussion of areas where there may be growth in air freight tonnage across the UK as a whole and where increased bellyhold capacity on passenger aircraft to/from these destinations will assist the development of these import/export markets. For example, Jet Airways has recently commenced a 5 days a week service from Manchester to Mumbai with an A330-200 offering bellyhold cargo capability as part of the offer within the context of a liberal air service agreement that allows for capacity increases across the market[26] between the UK and India.

3.9 So, whilst Section 3.2 of Vol III of the Azimuth Reports sets out how the cargo tonnage forecasts have been derived from the cargo aircraft movement forecasts, the basis for the movement forecasts is not set out at all. Hence, without a reasoned justification by reference to the scale of the market for each service proposed, little reliance can be placed on the asserted aircraft movement forecasts. These appear to represent nothing more than an aspirational list rather than a robust assessment of the extent to which such services might be operated. For none of the assumed services is there any analysis presented of markets, costs or alternatives available now or in the future for such freight and for none of the assumed services is any commitment documented.

3.10 The 'guesstimates' of the aircraft movements projected each year by airline(s), aircraft type and world region are set out, without further explanation, in Appendix 3.3 to the ES[27]. We set out below our comments on a number of the suggested airlines shown as assumed to be operating at Manston should the Airport re-open as an air freight hub.

- Amazon - it is not clear why Amazon would operate up to 4 return flights a day (1 in the first year of operation) from the US to Manston as the goods which Amazon sells in the UK are not, in the main, US manufactured. This seems to confuse the asserted role as an Amazon distribution hub with a requirement for long haul freight operations. Amazon's own flights in the US are between its main hub and secondary regional hubs, they operate no international services. Manston is not well located to operate as a distribution hub either for the London area or for the country as a whole so transatlantic flights by Amazon are not a realistic prospect.
- Cargolux - this assumes reinstatement of the previous Cargolux flower operation which has relocated to Stansted. This is only likely to take place should the charges to the airline be set at a very low level at Manston, as was the case previously, given the better location of Stansted relative to the totality of the UK market for the distribution of fresh flowers. Whether this would be commercially viable given RSP's asserted £300m investment in Manston is not assessed.

[26] https://www.gov.uk/government/news/deal-agreed-to-ease-restrictions-on-flights-between-the-two-nations

[27] TR020002-002418-5.2-6 - Environmental Statement - Volume 6 - Appendices 1.4-7.2.

- Fedex/DHL- the aircraft types proposed seem to pre-suppose a DHL operation. The integrator operation is expected to account for 22.8 movements per day on average or 48% of the total at Year 20 (a higher proportion in some of the earlier years). Manston is simply in the wrong location to perform as a hub for an integrator as we explain further in **Section 4**. Based on our knowledge of the integrator operations, this is completely unrealistic for Manston.

  Overall, the number of movements would imply around 8,322 annual movements by an integrator. This is around 43% of the total number of freighter movements at East Midlands Airport (EMA) in 2016 or around 2/3 of the current DHL operation there. This is hardly realistic as it would imply Manston would be a major integrator hub, duplicating the EMA operation, which acts as the main DHL hub for the UK working in tandem its main European hub at Leipzig. Freight tonnage continues to grow at EMA but the number of freighter movements have not systematically grown over the last decade. Further detail will be set out in the next section.

- Pakistan Airlines - The airline no longer operates pure freighter aircraft. The airline operates 22 passenger flights a week to and from the UK (Heathrow, Manchester and Birmingham) offering 208.5 tonnes of freight capacity each week[28].

- Postal - The B737 operation presupposes the development of a mail hub. Royal Mail have pared back on flying even at their main hub at EMA so it is unclear why a dedicated B737 operation is expected at Manston.

- Russian - Whereas the PEIR showed Russian airlines operating with aircraft types that have noise quota counts of 8 and 16, which meant that they could not operate according to the noise mitigation plan. The proposed aircraft type has been changed to a B747-400 in the ES but with no explanation as to whether the proposed Russian airline plans to operate such an aircraft or not.

- TAAG Angola – Do not operate any dedicated freight aircraft, let alone the B747 freighters, which is the type shown as expected to operate to Manston.

- Iran Air - Had a limited freighter fleet which is now stored and no longer in service. The airline placed no new freight aircraft orders when ordering a vast number of new passenger aircraft after the lifting of sanctions so it would not have aircraft to operate to Manston.

- Qatar Airways - Operates a significant schedule of dedicated freight services at London Stansted as part of its agreement to take over British Airways' freight commitments at the Airport. This British Airways/Qatar joint operation was in place when Manston was previously operational, and there were no services at Manston at that time, so it is not clear why they would not move from their established base if Manston was re-opened.

[28] Official Airline Guide (OAG) database.

3.11 At the very least, even without the other issues that we discuss in this section, consideration of the list of airlines and the type of operation shown in the ES gives rise to serious doubts about the credibility of the air freight movement forecast overall. These airlines account for 90% of the aircraft movements projected by RSP for Manston in the first year of operation and over 80% in Year 20. Regardless of whether a list of supposed operating airlines is produced, the absence of any analysis of the market for the proposed flights and a reasoned explanation for why each of the named airlines would operate to Manston means that the forecasts lack any credibility at all. In practice, most of the airlines relied on within RSP's 'forecasts' would or could not operate, invalidating the forecast and the assessments that depend on it.

3.12 It would be normal practice to set out clearly the markets that the Airport believes could be served, taking into account demand within its catchment area, and then to indicate the airlines and the aircraft types most likely to serve those markets. No assessment is presented by RSP of the extent to which the markets that it has identified are already being served by existing bellyhold or dedicated freighter operations nor any assessment of the extent to which future demand will be met through increased freight capacity at Heathrow and elsewhere. It is not sufficient to simply hypothesize a list of airlines as a basis for a forecasts of cargo movements and tonnage without supporting evidence and analysis of the market.

3.13 We recognise that Azimuth have sought to justify the absence of any mathematical demand model[29] to assess air freight demand for Manston on the basis of the difficulty of establishing relevant market data in the circumstances when Manston is not currently operational and in the light of the RSP claim that the re-opening of the Airport could bring about a step change in performance. However, the sources that they rely on to vindicate a purely qualitative approach to preparing the forecasts do not support the position adopted. For example, the US Transportation Research Board approach cited as justification for the approach adopted[30] makes clear that any qualitative approach should be based on the clear identification of the scale of the market, the drivers for change and an assessment of the potential market share that could be achieved as well as consideration of alternative future scenarios. It is evident that Azimuth has not completed these steps in a systematic and transparent fashion based on analysis of the actual demand for dedicated freighter aircraft to and from the UK today.

3.14 Hence, it is our view that no credence can be placed on the short term demand projections presented in the Azimuth Reports. It is simply not credible that Manston would attain 50% of the number of freighter aircraft movements currently operated to Stansted Airport within its first year of operation or that it would match Stansted in its second operational year (Year 3 2022).

3.15 We set out, in **Section 4**, a proper analysis of the market and the competitive drivers using publicly available data to substitute for the lack of proper analysis carried out by Azimuth. This will demonstrate that there is no pent up excess demand waiting for the re-opening of Manston, leaving aside that the Airport is simply in the wrong place to serve the UK market.

[29] Azimuth Reports Vol II, para. 2.22.4
[30] Ibid, para. 2.22.5

Longer Term

3.16 The short term 10 year forecasts are then extrapolated forwards by Azimuth for the following 10 years based on an assumed growth rate in underlying dedicated freighter aircraft movements. It is important to note that, if the forecasts for the first 10 years are not properly grounded in an assessment of the market for Manston, then any extrapolation forwards will lack validity whatever the realism or otherwise of the growth rate selected. This is fundamentally the case.

3.17 Even if the short term forecasts were reliable, which they are not, we dealt at length in our November 2017 Report (Section 2) with the errors made by Azimuth in its interpretation and use of Boeing and Airbus forecasts of the potential global growth in air freight RTKs[31] as the basis for its long term trend based forecasts using a 4% per annum annual growth rate for dedicated freighter movements. We do not repeat these criticisms here but the points remain valid.

3.18 It remains significant that the latest Government UK Aviation forecasts[32] continue to assume that there will be no net growth in pure freighter aircraft to and from the UK over the period to 2050:

"Freight is not modelled in detail. An assumption about the number of freighter ATMs is nevertheless required in the model as freighters potentially affect the space for passenger ATMs available where capacity constraints exist and, as discussed in Chapter 3, CO_2 emissions. At the airport level the number of freighter movements has been volatile with some evidence of overall national decline in recent decades. In the absence of clear trends for individual airports, the modelling now assumes that the number of such movements will remain unchanged from 2016 levels at airport level across the system.

If DfT has believed that there was likely to material growth in demand for dedicated freighter aircraft, it would have made a different assumption so as not to understate the need for more airport capacity across the UK's airports and the carbon effects of growth more generally.

3.19 We know that Azimuth do not agree with this view[33] but we are unaware of any intention by DfT to revise this no net growth assumption regarding the long term growth potential for dedicated freighter movements across the UK. This is in the context of the role of Heathrow and the additional capacity to be provided by R3 in increasing capacity for freight carried in the bellyholds of passenger aircraft and even in providing some increase in capacity for dedicated freighter aircraft at the UK's principal air freight hub to the extent that there is specific demand for additional movements at Heathrow connected with its hub role. We address the role of Heathrow within the UK air freight industry and the relationship between freight carried in bellyholds of passenger aircraft and in dedicated freighters further in the next section. We addressed Azimuth's use of alternative global forecasts of freight tonnage growth as the basis for forecasting dedicated freighter movement requirements in our previous reports but we draw some additional conclusions below.

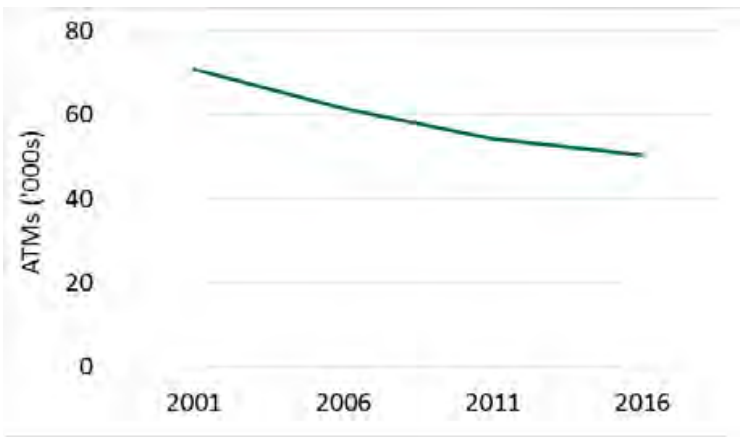
[31] Revenue Tonne Kilometers
[32] UK Aviation Forecasts, October 2017, as amended 25th January 2018, para. 2.56.
[33] Azimuth Report, Vol III, para. 2.1.14.

3.20 The trends in terms of tonnage growth are set out in paras. 4.4 and 4.5 and illustrated in Figure 4.5 of the UK Aviation Forecasts 2017. The Azimuth Report, Vol II, para 2.6.4 and Vol III para. 2.3.6, quotes from the DfT's original version of the UK Aviation Forecasts 2017. Azimuth appear not to have realised that this text was amended and an updated version issued on 25th January 2018[34].

"Freight, in terms of both tonnage and numbers of aircraft movements, has not kept pace with the growth in passenger numbers. In 2011 (70%) and 2016 (69%) most freight by tonnage is carried in the holds of passenger aircraft ('bellyhold'). Total freight carried at the UK airports rose from 2.3 million tonnes in 2011 to 2.4 million tonnes in 2016, with a growth of about 5% in the weight of cargo carried on both freighter and passenger aircraft."

3.21 The key point is that, whilst there has been growth in tonnage carried on both dedicated freighter aircraft and in the bellyholds of passenger aircraft over the 5 year period from 2011 to 2016, there has been an ongoing decline in the number of movements by dedicated freighter aircraft as illustrated in **Figure 3.1** below. Our analysis of the trends is echoed in the recent Altitude Report[35]. Notwithstanding a small increase in dedicated freighter operations in 2017, the general trend remains downwards. Our analysis of Civil Aviation Authority (CAA) Airport Statistics[36] suggests that there were just under 55,000 such aircraft movements in 2018 across all UK reporting airports[37]. This downward or static trend in relation to dedicated cargo aircraft movements across the UK as a whole is important in terms of setting a context for considering the reasonableness of Azimuth's projections by reference to the implications for the market share of the total market that it is claimed Manston could attract.

Figure 3.1: Trends in Dedicated Freighter Air Transport Movements (ATMs)



Source: DfT UK Aviation Forecasts 2017, Figure 4.5

[34] As a result of inconsistencies in the original pointed out to the DfT by York Aviation.
[35] Altitude Aviation Advisory, Analysis of the Freight Market Potential of a Reopened Manston Airport – Addendum: UK Regional Airport Financial Performance and Debt Funding Characteristics, February 2019.
[36] https://www.caa.co.uk/Data-and-analysis/UK-aviation-market/Airports/Datasets/UK-airport-data/
[37] i.e. excluding the Channel Islands and the Isle of Man.

3.22 Of the 55,000 freighter aircraft movements to/from the UK in 2018, some 34,000 movements were non-domestic; the domestic flights being mainly mail operations and feeder flights to the EMA freight hub. In terms of the domestic flights, it is important to recognise that they are counted twice in the CAA statistics, once at each end of the route, e.g. EMA and Belfast. Hence the number of such individual flights is actually under 11,000. On the basis that the small turboprop aircraft (ATR72s), making up 28% in Year 1 falling to 25% in Year 20 of the freighter movements shown in the ES Fleet mix[38], are operating principally on domestic routes, this would imply a market share of total UK domestic freighter flights starting in Manston of 13% in Year 1 rising to 40% by Year 20. This assumes no further decline in the number of domestic cargo flights, although this sector has a longstanding historic trend of decline numbers of flights. In terms of international operations, the Azimuth projections for Manston, would imply a market share of international freighter operations of 11% in Year 1 rising to nearly 40% in Year 20. If the market for Manston is narrowed down still further to principally day time operations, the asserted share of the available market would rise much further. In either case, the market share implications of Azimuth's 'forecasts' simply defy credibility in a market already well served by the better located operations at East Midlands and Stansted in addition to the contribution at Heathrow and other airports.

3.23 Azimuth use the original DfT estimate of 4% growth in tonnage carried on dedicated freighter aircraft (which was amended by DfT to 5%) over the period 2011 to 2016 as a key part of their justification for using the 4% per annum (p.a.) growth rate that they apply to the Year 10 freighter aircraft movement 'forecast' to extrapolate the freighter aircraft movement forecasts to Year 20. This leads to 2 fundamental errors:

- firstly, in applying a growth rate for cargo tonnage (or RTKs in the case of the Boeing and Airbus global forecasts cited by Azimuth) to aircraft movements ignoring the increase in tonnage carried per movement meaning that the growth in movements will always be lower over time than the growth in tonnage; and
- secondly a failure to understand the difference between the growth rate over a period of time (5, 10 or longer number of years) and an average annual growth rate applicable each year within the period to achieve that level of growth.

3.24 This latter and fundamental mathematical error undermines their use of average annual growth rates applied to derive both the longer term air freight movement and passenger growth rates and results in grossly overstated long term demand projections for Manston, leaving aside the reliability of the short term forecasts upon which the extrapolations are based. The specific errors are:

- The DfT trend of 4% growth over 5 years that is relied on by Azimuth is equivalent to 0.8% p.a. growth which, even if the Year 10 forecasts were valid (which they are not), would reduce the Year 20 forecast of freighter aircraft movements to 12,550 aircraft movements rather than the 17,170 projected by Azimuth.

[38] ES Appendix 3.3

- ✈ The 4% trend growth in the passenger forecast is cited by Azimuth as being conservative[39] by reference to a peer review undertaken by ourselves of the passenger forecasts for Liverpool John Lennon Airport in 2017, which found growth of 50% over the period from 2016 to 2030 and 120% over the period to 2050 to be reasonable. Based on growth of over 50% (62.5%) and 120% over 24 and 44 years respectively, the average annual growth rate was just over and just under 2% p.a. respectively in the case of Liverpool, which we considered reasonable in the context of DfT's overall projections for the UK market. Hence, again, proper analysis of growth rates does not support the use of 4% p.a. growth rate adopted by Azimuth for Manston over the longer term.

We discuss the appropriate basis for passenger forecasting in both the short and longer term in the **Section 5**.

Displacement Implications

3.25 It is notable that the implication of the Azimuth freighter forecasts is that the Airport is predicted to handle 5,252 freighter aircraft movements in its first year of operation (Year 2). This is almost five times the number of freighter aircraft handled in the previous peak year for the Airport of 2003[40]. On this basis, Manston would have almost a 10% share of the total market for dedicated freighter aircraft in the UK (based on just over 55,000 such movements in the rolling year to October 2018) in its first year of operation and assuming no net growth in freighter movement activity across the UK in line with DfT assumptions, or 15% of the international freighter movements. The Year 2 figure amounts to around 25% of the total number of freighters handled at the UK's main airport for dedicated freight aircraft, East Midlands (EMA), or around 50% of those handled at Stansted in the rolling year to October 2018. As noted above, the Year 3 figure for freighter aircraft movements would place Manston on a par with Stansted within 2 years of opening. This is not credible.

3.26 The only assumption that can be made is that Azimuth/RSP are relying on freighter aircraft at Manston being wholly or largely displaced from elsewhere in order to achieve the growth projected in a single year or over 2 years. Even if there was some latent demand for additional freighter movements to the UK, which we do not believe to be the case, it is not reasonable to assume that Manston would be the first choice for such freighters. We discuss the availability of spare capacity and market trends more generally in the next section.

3.27 Although Azimuth claim that the costs to airlines, freight forwarders and shippers of switching between airports have been taken into account in preparing the forecasts[41], this is nowhere transparently explained and, in particular the implications this might have for the revenues that RSP could earn and the viability of the development overall. Azimuth helpfully identify the factors that airlines, forwarders and shippers would need to take into account in considering the desirability or otherwise of relocating operations:

- *"The cost of physical relocation*
- *Cancellation of long-term contracts*
- *Loss of economies of scale, although if an entire operation is switched, economies*
- *of scale would be gained at the new airport*

[39] Azimuth Report Vol III, para. 4.0.3.
[40] See Table 1.1 of our November 2017 report.
[41] Azimuth Report Vol III, para 2.2.10.

- *Market effects such as marketing new routes and a potential loss of custom in the*
- *early years following the switch*
- *Network effects lost by switching to a smaller airport*
- *Capacity constraints at other airports, particularly in slot allocations*
- *Sunk costs such as an airline's investment in the airport from which they are switching"*

This means that any decision to relocate to Manston would be costly and would only be taken in the face of major disadvantages. Notwithstanding the claimed advantages of a dedicated purpose built cargo airport, we do not believe that these would outweigh the costs of switching or the fundamental disadvantages of being wrongly located in terms of serving the UK market.

3.28 Given these switching costs, the only way any freighter movements could be attracted to use Manston would be by offering lower prices than elsewhere, not least to compensate for greater trucking distances and time to the principal distribution centres in the UK Midlands (see our November 2017 Report and the Altitude Aviation Advisory Report of November 2017). We understand that this was the case when the Airport was previously operational and it almost certain to be the case if it re-opens. The need to charge lower prices would necessarily have an impact on the viability of the Airport, given the scale of RSP's claimed proposed investment which we discuss further in **Section 7**.

3.29 At 17,170 freighter aircraft movements and following DfT's assumption of no or negligible growth in dedicated freighter operations to/from the UK, then Azimuth's projections would result in Manston having attained a market share of 30% over 20 years (or 50% of international freighter aircraft movements), almost entirely at the expense of other airports. Again, the implications of such displacement need to be considered, not least in terms of whether there is actually a need for Manston given the capacity available at other better located airports to meet the demand.

3.30 The key point to make here is that the Azimuth forecasts are silent on the extent to which its forecasts rely on displacement from elsewhere, which has implications for any assessment of the net economic value of activity at Manston within the socio-economic assessment when measured, as Azimuth do, at a national scale (see later in this section). When the nature of the UK air freight market is properly understood (see next section), we consider the extent of displacement of freighter activity implied if Azimuth's 'forecasts' were correct as simply implausible, further invalidating the assumptions that underpin the case for the development.

3.31 Fundamentally, the Azimuth 'forecasts' appear to rely on substantial displacement of dedicated freighter aircraft movements from other airports that have already invested in the infrastructure to handle such movements, or, as we discuss further in the next section, already have adequate capacity to handle air freight, including the reasonably expected number of dedicated freighter movements. This is not plausible. Hence, the only opportunities for Manston will, in all likelihood, be niche operations not currently being served from elsewhere. In practice, we would expect the latter outcome to be more likely, meaning that there would be very limited, if any, demand for Manston.

Fleet Mix

3.32 Even if the 'forecasts' had any credibility at a headline level, which they do not, there are substantial discrepancies in how the forecasts have been disaggregated to inform the environmental assessment. These discrepancies further undermine any credence that can be placed on the forecasts themselves, particularly given that they are essentially derived from subjective judgements as to the airlines that might operate and the types of aircraft they would use.

3.33 The fleet mix proposed for Manston is set out in Appendix 3.3 of the ES (Vol 6). The information presented shows the expected operating airlines (as discussed above), the aircraft types and whether the operation is expected to be during the day or night time. Without prejudice to our view about the realism of the level of freighter aircraft movements projected, we consider here the reliability of the specific fleet mix forecast that underpins RSP's case.

3.34 In the first instance, we note discrepancies between the mix of claimed aircraft types (sizes) set out in Appendix 3.3. of the ES and those shown in the Azimuth Report (as well as between versions of the Azimuth Report) and the mix of aircraft types shown as the basis of assessment in Table 3.7 of the ES for Year 20. We illustrate the discrepancy in **Table 3.1** below.

Table 3.1: Fleet Mix of Freighter Aircraft by Aircraft Size Category (ICAO Design Code)

Code	C	D	E	F
Original Azimuth Vol III, Table 2	43%	42%	13%	2%
Updated Azimuth Vol III Table 2	43%	17%	40%	0%
ES Table 3.7	43%	40%	17%	0%
ES Appendix 3.3	43%	12%	40%	5%
Source: RSP Application Documents				

3.35 Hence, there appears to be confusion as to the actual forecast usage of Manston by RSP. No explanation is provided as to the reason for these discrepancies, or indeed why the fleet mix projections changed between the original version of the Azimuth Reports and the final submitted version. This is material as the airfreight tonnage 'forecasts' are apparently derived from assumptions made about the average tonnage per aircraft[42] so changing the fleet mix should inevitably have resulted in changed tonnage projections given the changing fleet mix assumed. The fact that the total airfreight tonnage 'forecasts' set out by Azimuth have not changed is a further illustration of the cavalier way in the forecasts and the whole case have been put together.

[42] Ibid, para 3.2.2.

3.36 Such inconsistencies must inevitably raise further doubts about the robustness of the forecast overall. These discrepancies have implications for the assessment of infrastructure required and the assessment of environmental effects[43] and reduce any reliance that can be placed on the assessments given that the basis of assessment appears to be different from the asserted Need Case as set out in the Azimuth Reports.

Pattern of Operations

3.37 The pattern of aircraft movements projected by RSP for Manston, in terms of its day/night balance, is inconsistent with industry norms. It is our view that the proposed day/night operating pattern is a further reason why the air freight forecasts for Manston are unattainable.

3.38 In the first instance, we have looked at the pattern of aircraft movement operations that we would expect based on the patterns seen elsewhere in the UK for similar types of aircraft, operator and destinations. Although Appendix 3.3. of the ES gives an indication of the proportion of movements by each aircraft type that would operate in the day time and the night time, no explanation is given for these day/night splits. In particular, it is not clear how the ES allocation of flights by day and night would fit with the airlines' required operating times to meet customer requirements. Whereas it may be possible to confine some specialist ad hoc freight operations to operate only within the day time period (07.00-23.00), many dedicated freighter operations are geared to collecting goods at the end of the working day, transporting them during the night and ensuring early morning deliveries the next day. This is particularly so for the integrators, for whom it is key to their business model and which are proposed in the ES forecasts to make up 48% of all freighter movements at Manston in Year 20. For an integrator, such as DHL, the timings of flights are, in large, part geared to the requirements for connecting operations at their main European hub in Leipzig and so are non-negotiable.

3.39 Without prejudice to our views on the overall number of freighter aircraft movements projected for Manston or, specifically, the likelihood an integrator operating to Manston at all (considered further in the next section), we have examined the validity of the pattern of operation proposed by RSP, particularly in relation to whether it is realistic to claim that Manston could operate as a major air freight hub with such a small number of night flights. In order to consider the reasonableness of the pattern of movements assumed by RSP (as set out in the ES), we have used our understanding of flight patterns and fleet mixes for cargo operations at other UK airports, specifically referencing the UK's main airport for dedicated freighter operations East Midlands Airport (EMA) current cargo movement schedule[44]. **Table 3.2** below shows that 56% of the total freighter aircraft movements at EMA operate between the hours of 23:00 and 07:00.

[43] For the purpose of our infrastructure assessment later in this report, we have worked from the more detailed data set out in Appendix 3.3 of the ES.

[44] EMA Cargo Schedule - http://aerofred.juice.org.uk/EMA/east_mids_cargo.html

Table 3.2: East Midlands Cargo Schedule Splits For Day Time And Night Time Movements By Operator Type				
	Integrator	**Mail**	**Other**	**Total**
Day Time Movements	37%	31%	74%	44%
Night Time Movements	63%	69%	26%	56%
Source: York Aviation Analysis of EMA Cargo Schedule[25]				

3.40 Clearly, this is significantly different from the 86%/14% day/night split of freighter aircraft movements assessed by RSP in the ES based, we assume, on the requirements proposed by Azimuth. As previously explained, this is in large part because the integrators, which make up nearly 64% of freighter movements at EMA operate to specific patterns linked to overnight delivery. It is, therefore, important to note that by RSP's forecast show that only 32% of Manston night movements are expected to be by integrators, despite such operations being projected to make up 48% of all freighter aircraft movements, whereas 70% of total night time movements at EMA are by integrators. This strongly suggests that the dependence of the integrators on night time operations has not been properly reflected in RSP's assessments.

3.41 We have used information on the patterns of operation observed for integrators, mail operators and for general air freight operations to assess the pattern of operation which the airlines would naturally seek to operate. We would have expected the rationale made for the assumed day/night time split of operations to be have been fully explained in RSP's Need Case (the Azimuth Reports) and the ES. It is not.

3.42 In the first instance, we have assumed that freighter operations are principally on weekdays and so have assumed 250 operational days per year. To the extent that some freighter operations might be at weekends, the effect of this assumption will have been to over rather than understate the number of daily movements. However, the assumption will be neutral in terms of its effect on the day/night balance of movements. We have applied RSP's assumptions as to the extent to which movements would bunch into busier periods (the 'Busy Day' multiplier as set out for each type of movement in Appendix 3.3 to RSP's ES).

3.43 Our specific assumptions for the main market sectors are as follows:

- *Integrators* - Based on the movement types expected by RSP/Azimuth to operate at Manston, with over half of the integrator movements expected to be ATR72s or other smaller Code C[45] turboprop aircraft, experience at other airports shows that these aircraft tend to operate a late evening arrival, early morning departure pattern as they act principally as domestic feeders from/to the UK's main integrator bases at East Midlands and Stansted. Closer inspection of the integrator fleet mix and, specifically, the volume of turbo props in the predicted aircraft movements by RSP has led us to estimate a higher percentage of movements requiring to operate at night than the 63% of integrator movements observed at EMA as a direct consequence of the high volume of predicted DHL/Fedex ATR72 aircraft operating feeder routes in Azimuth/RSP forecast, taking into account the times at which they will require to operate to fulfil the customer requirements. If there were fewer turboprops in the mix, this would, of course, have negative implications for the noise assessment assuming they were replaced by jets.

  Using realistic operational timings to the ES fleet mix leads to a roughly 10%/90% split of movements day to night for the integrators. EMA has a higher proportion of larger integrator aircraft in its operation as it fulfils a secondary hub role itself, which results in a proportion of the movements by these larger aircraft operating outside of the night period. In total, only 4% of integrator movements at EMA are by turboprop aircraft such as the ATRs, with a further 29% of movements by full size Code C aircraft, such as the B737. The remaining 67% of integrator movements at EMA are by the larger code D and E aircraft such as B767s and B777s. This reflects its role as an integrator hub for the UK given its central location.

  RSP's assumed mix of aircraft types for the integrator operation further highlights the lack of realism in the presumption that a substantial integrator operation is plausible at Manston, as it relies on a large number of feeder flights by small aircraft serving other hubs which would, in practice be more likely to be dispersed across a range of airports so as to serve local markets with efficient close out times for the collection of urgent packages. Manston simply could not fulfil that role and is not in the correct location to operate as a hub itself.

- *Mail* – Based on the busy day forecast calculated from RSP/Azimuth's data, there were 3 daily movements on average for postal services, which we rounded up to 4 to allow for a realistic pattern over a single 24-hour period. The RSP/Azimuth split of movements between the day and night was suggested as 50%/50%. However, as shown in **Table 3.2,** we found that 69% of mail movements were typically at night based on the EMA experience. This is hardly surprising given that the principal requirement is for overnight mail deliveries. Given the small number of such movements expected at Manston, it seems likely that all would need to operate during the night.

[45] The aircraft Codes referred to are aircraft size categories that determine the physical dimensions of the airport infrastructure required to handle them.

- *Other Freighters* – We have included all other freighter movements in this category. This is wider than the RSP/Azimuth forecast, which specifies 'Other Freighters' as relating only to a small number of movements by B737-300 freighter aircraft. For the purposes of building the busy day schedule, we have considered all non-integrator and non-mail movements as 'other'. RSP/Azimuth propose that, of all these other cargo movements, nearly 93% will be during the day. However, considering the nature of the flights proposed by Azimuth and typical operating times for these flights having regard to world time zones, we found that a more likely day/night distribution to be 80%/20%. This is closer to the split we found at EMA for general cargo operations of 74% day/26% night.

3.44 On the basis of a rational patterns of operations for RSP's claimed mix of aircraft and operators, we find that the same overall pattern of operations as EMA would be required if Manston is to allow airlines to fly when they wish to do so, i.e. 44% day and 56% night. Our analysis would strongly suggest that the pattern of day and night time operations being proposed by RSP is not realistic and that, for Manston to have any hope of attracting freighter operations in line with Azimuth's projections, there would have to be a substantially greater number and proportion of the operations taking place at night, giving rise to substantially different noise implications.

3.45 The pattern of operations put forward for Environmental Assessment by RSP, hence, runs entirely contrary to what is claimed in RSP's Statement of Reasons (para 4.23) that:

"other unique advantages of the Proposed Development include: dedicated air freight stands, aprons, handling, storage and processing facilities; prioritisation of freight with quick turnaround and unloading time of aircraft; and availability and flexibility of slots none of these advantages are likely to be sustained by any of the other airports in the south east of England",

and in the NSIP Justification Statement[46] that:

"our business model is to provide sufficient capacity to be able to accommodate aircraft when the airline wants to operate rather than to suit the airport through slot management, which requires a much greater availability of stands."

3.46 The proposals for Manston rely on constraining the times at which airlines could operate to a sub-optimal slot pattern, particularly for the intergrator and mail operations that require to operate largely at night. More likely, when coupled with the structural factors in the air freight market that we discuss further in the next section, the consequence of seeking to force an integrator to adopt RSP's proposed operating pattern reinforces our expectation that integrator operations are simply an unrealistic aspiration at Manston. This is significant as they account for 48% of the projected freighter aircraft movements in Year 20 (and higher in earlier years). If integrator operations are excluded from RSP's 'forecasts' then the number of freighter movements in Year 20 is only 8,843, leaving aside other errors and discrepancies in the assessment. Royal Mail flights, which would also require to operate at night make up a further 4.5% of freighter aircraft movements in RSP's 'forecasts'.

[46] RSP NSIP Justification, para. 29.

3.47 Furthermore, there is some confusion across the submission documents as to whether integrator operations are a core part of the demand projections in any event as the Planning Statement (para. 9.39) comments that:

"Additionally, there is the potential to attract an integrator to Manston Airport, which would dramatically increase the profitability of the airport."

This implies that this is an upside potential not part of the core Business Case as claimed to be set out in the Azimuth Reports and, hence, the assessment of need would need to exclude such operations in the core case and illustrate only the upside potential if such operations could be attracted.

Night Quotas

3.48 There remains further confusion regarding the intentions for night time operations as we understand that RSP has in public statements, on occasion, suggested that there would be no scheduled aircraft operations at night, i.e. the Airport would only accept delayed aircraft operating in the night period. Such a situation would be even more untenable for integrator and mail operations. Such a ban does not form part of the Noise Mitigation Plan and, hence, we have considered the implications of the Plan as published[47].

3.49 This gives rise to another key point regarding the fleet mix as RSP's Noise Mitigation Plan states that only aircraft of QC8 and QC16[48] will be banned from operating at night. This is inconsistent with best practice at other airports that ban scheduled operations at night by aircraft of greater than QC2 or even QC1[49]. The lax policy being adopted by RSP for Manston could act as an incentive for the operators of noisier aircraft to use the Airport within the proposed night quota available. Whilst this might bolster the attractiveness of the Airport for ad hoc freighter movements, e.g. by Russian airlines, it would not overcome the fundamental restriction on the principal operations by integrators such as DHL which would be heavily constrained by the night movement restrictions proposed in terms of the number of movements allowed within the quota.

3.50 We note that the proposed night movement quota of 3,028 QC points for the period 23.00-07.00 has been further reduced compared to the 4,000 QC points proposed for the period 23.000-06.00 at the consultation stage, with the additional 2,000 QC points available for scheduled passenger departures during the period 06.00-07.00. This imposes further severe restrictions on the ability of the cargo and passenger airlines to schedule their operations at times necessary to their operational viability in terms of meeting customer needs for delivery of goods and in ensuring optimum aircraft utilisation and efficiency.

[47] RSP 2.4: Noise Mitigation Plan.

[48] The QC (Quota Count) system is a classification system for the noise made by aircraft and has been adopted at most of the main UK airports as the basis for defining a night movement quota related not just to the number of movements but the level of noise each aircraft makes. The higher the QC number the noisier the aircraft. A movement by a QC16 aircraft would be equivalent in quota terms to 16 movements by a QC1 aircraft.

[49] Luton - https://www.acl-uk.org/wp-content/uploads/2016/10/Local-rule-1.pdf , Birmingham - https://www.acl-uk.org/wp-content/uploads/2018/10/Night-Flying-Policy-2018-2021.pdf , Stansted - https://live-webadmin-media.s3.amazonaws.com/media/3682/stn-noise-action-plan-consultation-15818.pdf.

3.51 Furthermore, examination of the day and night time split of movements as set out in Appendix 3.3 of the ES suggests that by Year 20 there are expected to be approximately 10 aircraft movements per weekday night[50] according to Azimuth/RSP's forecasts. Although the QC points per movement are not clearly set out in the ES, an approximate estimate using Heathrow's QC point attribution by aircraft type[51] would suggest that an average weekday quota count of between 8 and 8.5 based on the night movements indicated in Appendix 3.3 of the ES and assuming an even balance of arriving and departing aircraft movements per night. This would amount to around 2,460 movements per year using just over 2,000 of the 3,028 proposed night quota points, dependent on the split of arriving and departing aircraft and the precise aircraft variant used. Whilst this would allow additional movements to be scheduled at night, it would still not be sufficient to allow for an integrator operation to be established, even assuming that Manston was geographically in the right place – a point that we discuss further in the next section. However, it is notable that, assuming the noise assessment has been based on the data supplied in Appendix 3.3 of the ES, the full impact of the proposed noise mitigation strategy and quota appears have not been assessed in the ES.

3.52 Appendix 3.3 of RSP's ES indicates that none of the passenger aircraft operations would be at night. This is equally unrealistic. We set out in the next section the typical rotation pattern for a based low cost carrier (LCC) aircraft at a regional airport. These airlines maintain low fares by optimising the time that the aircraft are in the air each day. To achieve this, they typically make their first departure before 07.00 and often return after 23.00. Hence, we would expect there to be at least some night movements by passenger aircraft in addition to freighter movements. Constraining an LCC to daytime operations only would render Manston particularly unattractive as a base for aircraft.

Socio-economic Assessment

3.53 Whereas our previous criticisms of Azimuth's approach to air freight movement projections have been ignored, there appears to have been some attempt to take on board criticisms of the socio-economic assessment (Azimuth Reports Vol IV). Nonetheless, the assessment of the socio-economic impact of the development remains badly confused, unclear and riddled with errors and ultimately, even if the socio-economic assessment undertaken were robust, it would be rendered meaningless by the manifest errors in the demand 'forecasts' that feed into it. What is put forward with RSP's submission should, therefore, be accorded no weight whatsoever.

3.54 In our previous report, we considered the methodology adopted by Azimuth Associates in some detail and although some minor changes have been made to the approach reflecting our comments, little has really changed. We would, therefore, refer the Examining Authority back to our November 2017 Report[52] for a complete assessment of the RSP case. However, we would reiterate a number of key points:

[50] Freighter movements typically operate principally on weekdays.

[51] https://www.heathrow.com/file_source/HeathrowNoise/Static/HCNF_WG1_QC_and_chapter_correlation_Feb_18.pdf .

[52] York Aviation November 2017 Report, Section 5.

- The study area that is being considered by this assessment remains completely unclear and Azimuth repeatedly uses assumptions that would not be appropriate for the assessment they appear to be trying to make at the level of Kent or East Kent. At points, it appears that the impact of Manston is being considered at a UK level and multipliers are being used that reflect this size of study area. However, at the same time the Azimuth Reports and the Planning Statement talk about impacts in much more localised areas, particularly East Kent, but no change appears to be made to the multipliers to consider these smaller areas. Multipliers for smaller geographic areas must be smaller than those for larger areas as they will not include as much supply chain or as much expenditure of employees' salaries. Failure to realise this suggests a fundamental lack of understanding of how multipliers work and how they should be applied. As RSP's submission stands, it does not actually include a socio-economic impact assessment because it does not properly define the geographic area it is assessing. All that is presented are a series of random, meaningless inferences of what the impact of an airport might be.
- Azimuth continue to use an on-site employment density for a re-opened Manston that is too high. We continue to believe that Prestwick Airport is a better comparator for Manston, with a density of around 650 jobs per million passengers per annum or 100,000 tonnes of freight. Azimuth has revisited their assumptions and concluded that East Midlands Airport is an appropriate comparator, with a job density of around 887 jobs per million passengers per annum or 100,000 tonnes of freight[53]. However, what Azimuth have failed to account for is the substantial amount of non-aviation related employment based on the Pegasus Business Park at East Midlands which is included in this employment estimate. This means that the basis for the calculation used is inflated resulting in a higher employment density. If this non-aviation related employment were to be removed from the assessment the employment would actually be similar to that at Prestwick and is a better comparator to Manston given that much of the non-airport related employment at EMA relates to businesses located there adjacent to the M1 and centrally located for the three main cities in the East Midlands region.
- Azimuth are also incorrect[54] to assert that our economic assessment set out in our November 2017 Report must be wrong because our estimate of catalytic impacts in terms of jobs is lower than our estimate of direct airport related jobs (based on RSP 'forecasts'). Whilst we would agree that the catalytic effects of airports are often larger than the direct, indirect and induced effects, that does not make it true in all cases. Consideration of individual circumstances is vital. Our assessment considered a properly defined area, Kent. Given Kent's location, its industrial base, population and the size of freight catchment areas, it is unlikely that a significant number of potential freight users will be located within that area and, hence, the amount of impact captured will be relatively small. The passenger services envisaged are likely to be focussed on outbound leisure markets and, hence, inbound tourism impacts are likely to be small. In Manston's case, there is no reason to expect significant catalytic effects within a properly defined catchment area.

  In practice, the catalytic effects tend more often to manifest themselves in increased productivity and so appear as GVA[55] effects rather than necessarily employment effects. Azimuth do not appear to understand this and have not taken into account how any catalytic effects would actually materialise within the local context.

[53] This economic impact assessment was undertaken by York Aviation.
[54] Azimuth Reports Vol IV, para 4.3.6.
[55] Gross Value Added

- Following on from the failure to properly define a study area and the use of national multipliers, it should again be re-emphasised that if Azimuth are looking at national effects they failed to allow for any displacement of economic activity from other parts of the UK from the abstracting of demand from other airports. In our view, Manston is not going to generate new demand for freight services. It will have to capture demand from other airports. This will have an effect on these other airports in terms of their ability to support employment.
- Azimuth has also failed to properly define the baseline for the socio-economic assessment. Their assessment has implicitly assumed that if the RSP proposals are rejected then the Manston site will not support any economic activity. This is again inaccurate. The current owners have put forward plans for a mixed use development and this should be considered as the counterfactual for the assessment. Any impacts from RSP's proposals should be reported net of impacts from the alternative uses for the site.

Passenger Terminal Parameters

3.55 As we discuss in **Section 6**, no explanation or justification is provided for how the air freight movement or tonnage forecasts have been converted to facility requirements. The requirements are simply reported in Table 6 of Vol III of the Azimuth Reports. This is a significant gap in the justification for the scale of facilities required, as we discuss further in **Section 6**.

3.56 Despite there being no information provided in relation to the cargo terminal requirements associated with the freight tonnage forecast, some information is provided in relation to the scale of passenger terminal facilities required in Table 7 of Vol III of the Azimuth Reports. In this case, there are obvious errors of analysis in terms of the 'pax per hour' requirements set out. There can be no certainty that similar errors have not been made in assessing the facility requirements for air freight but no explanation is provided.

3.57 At para. 4.0.5 of Vol III of the Azimuth Reports, it is stated that a low cost carrier (LCC) (elsewhere shown to be assumed to be Ryanair) would base 2 aircraft at the Airport initially, increasing to 3 from Year 6. Based on the pattern of Ryanair operations seen elsewhere across their network, these aircraft are likely to all need to depart in the first operational hour of the day in order to achieve optimum utilisation of the aircraft over the day. Similarly, they are likely to arrive back at a similar time of night, particularly if night time operations after 23.00 are not expected (as indicated by the ES Appendix 3.3 data). Hence the terminal would need to be sized to accommodate the full passenger load from 3 aircraft within an hour for each of arrivals and departures. Ryanair's current fleet of aircraft (B737-800s) typically have 189 seats and, over time, these will be replaced by B737 Max aircraft of 200 seats. Hence, at Ryanair's typical summer load factor of 97%[56], the number of passengers per hour that the terminal would be expected to handle in each direction would be 550-580. It is also possible that the KLM operation to/from Amsterdam would also operate at similar times in order to maximise connections available at the Amsterdam hub increasing the number of passengers requiring to be handled within an hour.

[56] https://investor.ryanair.com/traffic/

3.58 According to Table 7 of Vol III of the Azimuth Reports, the required terminal capacity is 171 departing passengers per hour (less than the load of a single Ryanair aircraft) and 43 arriving passengers per hour or around 23.5% of the load of the smallest Ryanair aircraft. This simply does not make sense, particularly in terms of the large differential between departing and arriving capacities assumed. Should the capacity of the terminal be constrained to these levels, it is unlikely that a single aircraft could be based at Manston at all. The arrivals capacity would relate only to the ability to handle a single very small turbo-prop aircraft at any one time. We consider further the terminal capacity requirement in **Section 6**.

Conclusion

3.59 Whilst individually some of these errors and discrepancies might seem small in scale and impact, others are highly significant and serve to undermine the credibility of the whole approach outlined in the Azimuth Reports and throughout RSP's Application Documents. The combined implications are significant in terms of whether a) the application should actually have qualified as an NSIP; b) in terms of the level of demand that Manston might attract if it re-opened as an Airport and the viability of the proposed operation; and c) whether the environmental assessments undertaken are robust.

3.60 The most significant of these errors relate to:

- the lack of any soundly based forecasts – instead of forecasts based on an understanding of markets, costs and real potential, RSP's case is founded on a flawed list of airlines that it claims will definitely operate at Manston and then grow their business at Manston. This is no more than a 'guesstimate', without any supporting evidence. These are not 'forecasts' in the sense that is normally recognised in the industry;
- the lack of realism in the fleet mix overall and the assumed pattern of day/night time operations, particularly in relation to the implications for the prospect of integrator and mail operations being attracted to use Manston at all. This further undermines the credibility of the short term 'forecasts';
- the overstatement of longer term demand projections through the use of unjustified growth rates.

3.61 These errors and inconsistencies render the so-called 'forecasts' completely unreliable as a basis for assessing the extent and nature of any usage of Manston in the event that the Airport re-opens. In the next section, we set out our assessment of the market potential for Manston to assist the Examining Authority.

4 UNDERSTANDING THE AIR FREIGHT SECTOR

In this section, we summarise the performance of the UK Air Cargo market and demonstrate that there has been an inexorable trend away from the use of dedicated freighter aircraft towards a clear preference for the use of bellyhold capacity on passenger aircraft on the growing network of global air service connections. The exceptions to this are the operations of the integrators, which have well established UK operational bases, particularly at Heathrow, East Midlands and Stansted serving the main conurbations.

There is a strong concentration of freight handling and forwarding facilities in the vicinity of Heathrow, drawn by the air freight capacity offered by the global hub network of air services. This means that much airfreight is inevitably consolidated at Heathrow to avail of the lowest possible freight rates using bellyhold capacity. These facilities are being modernised to increase capacity and this will reinforce the dominant position of Heathrow in the sector. Development of the third runway at Heathrow will enable that Airport to double its freight handling capacity, principally in bellyhold capacity but also for dedicated freighter aircraft to the extent required by the integrators or to supplement bellyhold capacity in core markets and to feed the hub.

Alongside growth at Heathrow, there is increasing bellyhold capacity being made available at other airports as they develop a broader range of long haul services, in particular at Manchester. This may be expected to see further growth in consolidation activities adjacent to other major airports as their global connectivity increases.

Overall, within the context of an industry dominated by consolidation, bellyhold capacity and integrator operations, it is difficult to see any potential role for Manston other than in relation to niche services and specialist consignments, similar to the cargo handled when it was previously operational. This is unlikely to result in usage of Manston Airport by dedicated freighters to any greater extent than historically seen.

Introduction

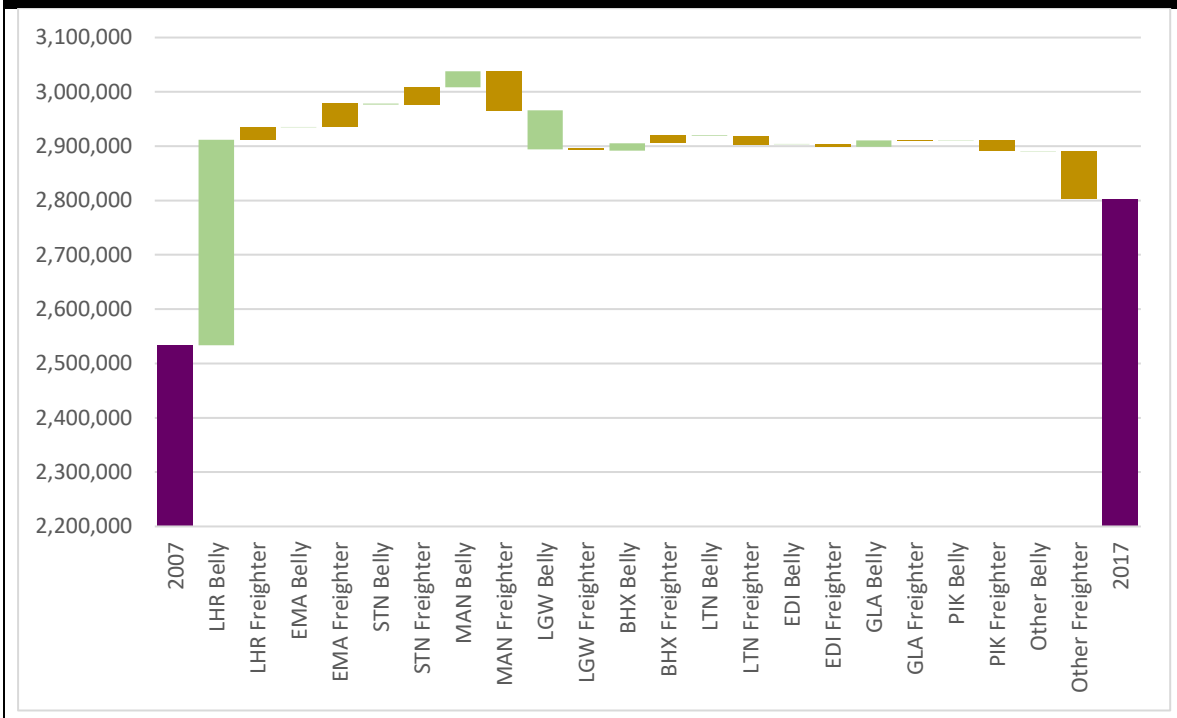
4.1 In this section, we update our consideration of the air freight sector in the UK, the way it functions and the key trends that have been observed in recent years. This analysis updates the evidence presented in our November 2017 report, including new data where it is available. However, it should be emphasised that the key messages from our previous report have not changed and our views on the key dynamics in the market and their implications for Manston similarly have not changed. The November 2017 analysis is important as it updates and correctly interprets the work that we undertook for the Freight Transport Association and TfL in 2015 upon which Azimuth still seek to rely as the basis for their justification of the number of freighter aircraft movements that Manston might attract.

Historic Performance of the UK Air Cargo Market

4.2 The evidence set out in our November 2017 Report and in the Altitude Aviation Advisory Reports[57] provides a detailed picture of the UK air cargo market over the last thirty years and we do not seek to repeat that analysis here. However, in the context of considering whether RSP has presented a compelling case for development, we have sought to re-emphasise several key themes which are central to any consideration of the UK air freight market generally and a re-opened Manston's potential market performance specifically.

4.3 What is evident is that there has been a fundamental structural shift to using available bellyhold capacity in passenger aircraft and away from pure freighter operations. This is illustrated in **Figure 4.1**, which sets out a bridge diagram between 2006 and 2017 showing the change in freight handled via bellyhold and pure freighter at major UK freight airports.

Figure 4.1: Drivers of Change in the UK Air Cargo Market – 2007 to 2017[58]



Source: York Aviation analysis of CAA Statistics

4.4 There are a number of key points to note:

[57] Altitude Aviation Advisory, Analysis of the Freight Market Potential of a Reopened Manston Airport, November 2017 and Addendum: UK Regional Airport Financial Performance and Debt Funding Characteristics, February 2019.

[58] LHR = Heathrow, EMA = East Midlands, STN = Stansted, MAN = Manchester, BHX = Birmingham, LTN = Luton, EDI = Edinburgh, GLA = Glasgow, PIK = Prestwick.

- the market has continued to consolidate into Heathrow, in particular through increased bellyhold capacity, enabled by the ongoing rebalancing of that airport's passenger network towards long haul destinations. There has been a 29% growth in tonnage carried in the bellyholds of passenger aircraft and 31% on dedicated freighter aircraft over the period 2007 to 2017[59], with Heathrow increasing its share of the total UK air freight market from 82% to 86% in terms of bellyhold freight and from 8% to 11% in terms of freight carried on dedicated freighter aircraft. This increase in market share has been achieved even in circumstances where the airport has been operating with a capacity constraint and whilst other airports have had spare capacity available for dedicated freighter aircraft, indicating that there have been other economic and structural factors at play, including the structure of the freight forwarding sector and the economics of consolidation;
- elsewhere in London, Gatwick has seen both bellyhold and freighter capacity significantly eroded as that airport has become more capacity constrained and it has focussed increasingly on low fares passenger airlines offering short haul services, albeit this trend has started to reverse as more long haul operations come on stream with Gatwick recording a 50% increase in tonnage carried on passenger aircraft between 2017 and the rolling year to October 2018;
- Stansted has seen 14% growth in freighter tonnage but has not increased its freighter activity despite having spare slot capacity available to do so strongly suggesting that the effect of any capacity constraints at Heathrow have not resulted in displaced dedicated freighter demand to other London airports;
- East Midlands, with major DHL and UPS bases, has seen 17% growth in air freight tonnage on an 11% increase in freighter movements over the period 2007 to 2017 and had been the only airport that has seen significant growth in pure freighter traffic, but again this has not offset losses in freighter traffic from elsewhere, suggesting that, for more general air cargo, bellyhold capacity is fundamentally more attractive, even potentially if this involves trucking to more distant airports;
- this is reinforced by what has happened at Manchester, which has seen 21% growth in its bellyhold air cargo market, relating to its growing long haul network, but has seen freighter traffic fall away significantly, with a 91% reduction in cargo carried in dedicated freighter aircraft despite the airport having spare capacity to handle such freighters. Again, this demonstrates that a shift to bellyhold is not driven by capacity constraints as Azimuth claim but by underpinning structural and economic factors;
- the growth in bellyhold traffic at Birmingham is also probably reflective of its growing long haul passenger network;
- in general, there has been a noticeable switch towards the use of bellyhold capacity. Since 2007, pure freighter cargo's share of the UK market has dropped from 36% to 30%, while actual freighter tonnage has dropped by 9%;
- it is interesting to note the performance of Prestwick in the context of Manston, as it provides perhaps the most obvious direct comparator, with a similar sized freighter operation in 2007 to Manston at its peak. Freighter traffic at that airport has dropped by 64% since 2007. It is also worth noting that, in the meantime, Prestwick has also had to be nationalised to maintain operations as it had been heavily loss making for a considerable period of time.

[59] York Aviation Analysis of CAA Airport Statistics.

4.5 Whilst the volume of air cargo flown to/from the UK's airports over the past 15 years has grown only incrementally, there have been considerable changes in the way that demand has been serviced, which again reflect the drivers and constraints on demand described above. Essentially, the market has been consolidating to a small number of airports and bellyhold cargo has become more dominant.

Understanding the Sub-Markets

4.6 The air freight market can be categorised into 4 sub-segments, as set out in a report by Steer for Airlines UK[60] was published by the DfT to accompany the Aviation Strategy Green Paper[61]. These are:

- **General Air Cargo** – which makes up the majority of air cargo and is carried principally by IAG Cargo (British Airways and partners), Virgin Atlantic and a number of American and Asian airlines. As Steer make clear, such cargo is predominantly carried in the bellyholds of passenger aircraft and so would not be available at all to Manston;
- **Express Freight** – carried principally by the four main integrators (DHL, Fedex, TNT and UPS). The integrators use their own aircraft for intra-European flights and on the main long haul sectors but use bellyhold capacity for the remainder of their operations. These operators are well established at East Midlands, Stansted and Heathrow, with satellite operations at other airports such Luton, Manchester, Edinburgh and Belfast. The report by Steer also makes clear, as we set out in the previous section, the high dependence of the integrators on night time operations which would rule out operations at Manston based on the proposed night flying policy:

"Integrator stakeholders consulted as part of this study stated that the way in which these operating restrictions [Night time operations] a*re applied impacts their ability to operate effectively, as the express business model (described above) is dependent on being able to ship goods during the night to enable maximum productivity for customers who rely on shipments being picked up close to the end of the working day and delivered as early as possible the next"*[62];

- **Specialist and Niche Cargo** – classified as freight that has specific requirements in terms of storage, security or regulatory requirements, including perishables or dangerous goods. Such goods are unlikely to be suitable for carriage in bellyhold capacity so may require dedicated aircraft;
- **Mail** – where international mail principally uses bellyhold capacity but chartered freighters can be used for some longer distance mail deliveries between the main centres of population in the UK.

Examination of these categories demonstrates that the only category that might have any use for Manston would be the Specialist and Niche Cargo category. Although, no data is available, this is a very small part of the overall airfreight market.

[60] Assessment of the Value of Air Freight Services to the UK Economy, Steer, October 2018, paras. 2.8 to 2.16.
[61] Aviation 2050, The Future of UK Aviation, a Consultation, Department for Transport, Cmnd 9714, December 2018.
[62] Assessment of the Value of Air Freight Services to the UK Economy, Steer, October 2018, paras. 2.33.

The Economics of Bellyhold

4.7 From discussions with airlines, we understand that modern long haul aircraft operating primarily passenger services from airports such as Heathrow or Manchester can typically carry around 15 tonnes of cargo per sector and airlines would expect to earn around 10% of total revenues from cargo. Whilst this is only indicative, it would follow that an airline may expect to earn around 0.66% of the revenues from operating a flight from 1 tonne of cargo. In contrast, a dedicated cargo flight needs to cover all of its operating costs from the cargo carried. At the average tonnage per movement projected by Azimuth for Manston[63] of c.13.9 tonnes per aircraft this means each tonne of cargo has to earn enough to cover over 7% of the costs of operating the flight. Taking an equivalent long haul aircraft (Code E), which Azimuth's work suggests could be carrying 33 tonnes per movement, this would require each tonne of cargo carried to cover 3% of the cost of the flight. Accepting that dedicated cargo aircraft like for like with the same aircraft type may have lower operating costs per flight than a passenger aircraft (no cabin crew or meals), it would also be likely that the dedicated freighter aircraft would be an older variant and use more fuel than the more modern equivalent that tends to be used on passenger operations, particularly from an airport such as Heathrow. The two factors may be expected to largely cancel each other out. On balance, then, a tonne of cargo carried in a dedicated freighter aircraft is likely to cost around 4.5 times more per tonne to transport than the same tonne of cargo carried in the bellyhold of a passenger aircraft. This will almost certainly translate into a higher price to the shipper.

4.8 It is for this reason that we see an inexorable shift from the use of dedicated freighter aircraft to bellyhold capacity due to the sheer cost advantages of availing of bellyhold capacity. The availability of bellyhold capacity is a powerful reason why the UK has lower dependence on dedicated freighter aircraft than the global average. We see this shift to bellyhold in the data from the UK regional airports noted above, which have seen little or negative growth in dedicated freighter operations (except for the integrator operations at EMA) but growth in flown cargo tonnage as their long haul passenger operations offering bellyhold capacity have grown. This demonstrates that, contrary to the assertion by Azimuth that the shift to the use of bellyhold capacity in the UK is a response to a shortage of capacity for dedicated freighter aircraft at the London airports, the shift towards a preference for bellyhold capacity for the carriage of the majority of airfreight reflects the economics of the industry, i.e. shippers and forwarders choose the most cost effective solution for moving goods from A to B which may include an element of trucking to avail of the lowest air freight rate.

4.9 Indeed, the Steer Report confirms that dedicated freighter operations are on the decline globally:

"The market for dedicated freighter services has struggled globally since the financial crisis due to falling seafreight rates and the continued rise of air passenger demand (and associated bellyhold capacity), which have driven down freighter yields. Although some UK airports have retained important integrator, and to lesser extent, freight operations, freighter activity has remained relatively flat in recent years and is currently lower than pre-crisis levels."[64]

[63] Analysis of Azimuth Report Vol III, Tables 2, 3 and 4.

[64] Assessment of the Value of Air Freight Services to the UK Economy, Steer, October 2018, para. 3.8.

4.10 The implications for Manston from this analysis are clear. Bellyhold is the preferred option for a significant proportion of the air cargo market and that this trend has intensified in recent years. This is a function of price and the relative urgency in relation to general air freight, as opposed to either express freight or niche products which may justify a higher cost dedicated freighter services such as operated at the existing integrator hubs. For express freight or niche products, shippers are prepared to pay a premium which allows the use of freighter aircraft because either speed is of the essence, or the destination is hard to reach, or the cargo is difficult to handle in some way. For general air freight, these drivers are not the same. Accepting that all air cargo is to some degree sensitive to speed of delivery, it seems that what is likely to be pushed from bellyhold capacity, in a capacity constrained environment, is less time sensitive and shippers' willingness to pay is lower. Hence, in the current market with relatively high fuel prices, freighter options are not an adequate or economically realistic substitute.

4.11 The only UK airports experiencing dedicated freighter growth are those with significant integrator activity. This suggests that Manston's likely freighter offer, on the assumption that an integrator operation would not realistically be attracted, would struggle to penetrate the market. There has been consolidation into larger airports, which again suggests that Manston will struggle to establish market presence. Finally, the experience of Prestwick, its nearest comparator in many ways, is not encouraging for Manston. Its well established dedicated freighter operation has been heavily eroded and the airport has had to be nationalised to maintain its operation. It continues to be heavily loss making, losing £7.6 million in 2017/8[65].

4.12 This is very important from the perspective of considering the potential role of Manston. It suggests it will be very difficult for the Airport to compete effectively for any traffic displaced as a result of constraints in the London market as it cannot and will not be able to provide the price, frequency and breadth of destination advantages that bellyhold freight can offer. In this context, the airports competing for cargo traffic being pushed away from Heathrow now and in the future are the large UK regional airports with growing long haul passenger networks, such as Manchester or Birmingham, and the near European global hub airports, which offer the closest substitutes to Heathrow and are within easy trucking time of, certainly, the London and South East market. In any event, bellyhold capacity at Heathrow is expected to increase substantially once the third runway becomes operational so driving down the competitive prices in the market, making it even more difficult for freighters to compete. In fact, as we have discussed above, the NPS cites one of the key reasons for the choice of the North West Runway option at Heathrow being the opportunity to double freight capacity.

The Role of Trucking

4.13 The Steer Report for Airlines UK also explains the role of trucking, noting that[66]:

"a significant amount of air freight is transported in customs-bonded trucks between the UK and continental Europe and is classified as air freight with an assigned flight number. Freight is often flown to continental Europe, particularly from Asia, as there is often more available air freight capacity than to UK airports, partly due to lack of available slots for freighter aircraft at Heathrow……..

[65] https://beta.companieshouse.gov.uk/company/SC462050/filing-history

[66] Assessment of the Value of Air Freight Services to the UK Economy, Steer, October 2018, paras 2.24, 2.25.

In contrast to goods from Asia, Heathrow stated that goods destined for North America are also often trucked to the UK, in particular Heathrow, from continental Europe in order to take advantage of cheaper rates from the UK on North American routes. As Heathrow is the primary European hub for North American passenger connections, there is a significant level of bellyhold capacity available, which means air freight rates are cheaper compared to other European airports."

4.14 There is a further reason why trucking to airports in Europe is an inherent part of the industry as also set out in the Steer Report[67]:

"Many of the largest freight airports in the EU are concentrated in North-West Europe, which is relatively well off and densely populated (therefore generates demand for imports), and is the home of a lot of European industry (therefore produces a large amount of goods for export). The close proximity of many large freight airports to the UK may also to some extent explain why so much air freight is flown to continental Europe and trucked to the UK, as there is much greater capacity available to continental North-West Europe than to the UK."

Hence, even if Manston was operational, the structural factors that mean that freight loads are consolidated at the main freight hubs in continental Europe and then trucked to and from the UK would still result in this freight being trucked and by-passing Manston. The concentration of markets around these continental European hubs also allows them to support some dedicated freighter activity, reinforced by trucking and consolidation.

4.15 As explained above, the reasons why trucking is an inherent part of the industry is cost. It is simply cheaper in overall terms to truck to an alternative airport offering cost effective bellyhold capacity than it is to seek out dedicated freighter capacity. This applies to the vast majority of general air cargo. Ultimately, shippers and forwarders seek the cheapest option. Having a dedicated freight airport at Manston would not 'intercept' this freight travelling to and from Europe as Azimuth claim[68] as such freight would still seek the cheaper bellyhold capacity regardless of the potential option of a dedicated freighter or, where a dedicated freighter aircraft was the most cost effective option, seek to operate that aircraft to the main centres of economic activity in Central Europe or the UK's main distribution focus around East Midlands Airport[69] so as to optimise distribution of goods overall.

Heathrow

4.16 As noted above, despite the acknowledged runway capacity constraints, Heathrow has increased its share of UK air freight carried. This indicates a strong structural preference for Heathrow as the UK's main air freight hub, as identified in the NPS. It is important to understand why this is so. The Steer Report referred to at para 4.6 above makes clear the importance of Heathrow within the air freight sector:

[67] Ibid, para 3.21.
[68] Azimuth Reports Vol I, para. 6.4.13
[69] Altitude Aviation Advisory, Analysis of the Market Potential of a Reopened Manston Airport, October 2017 paras. 114, 115.

"One notable feature of the UK air freight market is the huge importance of Heathrow and its surrounding freight facilities, with most forwarders having major consolidation centres in the vicinity of the airport. Very significant volumes of air freight are trucked to such facilities near Heathrow, processed and then trucked to another airport, either in the UK or in continental Europe, without ever flying in or out of Heathrow itself."[70]

4.17 The Steer Report goes on to state:

"Historically, much of the UK air freight activity is concentrated around Heathrow due to its significantly more extensive intercontinental passenger network compared to those of other UK airports. Although this remains the case, new intercontinental passenger connections at regional UK airports have increased possibilities for transporting long-haul freight as bellyhold cargo."[71]

Hence, regional airports developing bellyhold capacity are likely to be the principal gainers from any freight displaced from Heathrow as a consequence of short term constraints until R3 is operational.

4.18 Even where capacity constraints at Heathrow are noted as a potential problem, the reasons cited in the Steer Report[72] do not lend credence to there being a need for additional air freight capacity at Manston:

"The importer stated the reason such a high proportion of its goods are flown to the UK via Europe, is because the UK's air freight capacity is not sufficient to service the required import volumes. Goods are trucked as bonded freight to avoid having to undergo Dutch or German customs procedures, as the importer incurs fewer administration costs as it is only required to deal with UK customs.

The importer stated that, as most of its imports are flown in freighter aircraft, one of the reasons why it often cannot fly its goods into the UK, is because not enough UK airlines operate these types of aircraft. Many airlines that in the past operated long-haul freighter services, for example IAG Cargo at Stansted, no longer do; therefore, there are fewer long-haul freighter options available. However, the main problem the importer cited with UK air freight capacity was the quality of the infrastructure.

The importer stated that it avoids using UK airports because they are too congested and therefore not efficient; air freight infrastructure has not been upgraded in line with increased traffic, which causes delays that can be avoided at continental European airports. The importer stated that there should be better utilisation of regional airport capacity at, for example, Manchester, which was cited as a relatively good operation with not enough freight capacity."

[70] Assessment of the Value of Air Freight Services to the UK Economy, Steer, October 2018, Executive Summary.
[71] Ibid, para. 2.36.
[72] Assessment of the Value of Air Freight Services to the UK Economy, Steer, October 2018, Case Study Example at Page 11.

4.19 Properly understood, this highlights a desire for more freighter capacity at Heathrow, concerns around infrastructure constraints at Heathrow, and issues caused by the willingness of airlines to operate such flights. As the case study makes clear, Stansted and the existing regional airports provide potential available airport capacity but the lack of airlines willing to operate dedicated freighters is the issue rather than the capacity of the airport infrastructure. To illustrate the point, Cathay Pacific Airways operated a dedicated freighter aircraft to Manchester until recently but this has been replaced by more cost effective bellyhold capacity on their now daily A350 service to Hong Kong[73].

4.20 As noted above and in RSP documents[74], there have been concerns expressed about both slot constraints at Heathrow and the adequacy of capacity for freight more generally as well as the quality of the infrastructure. However, as we have made clear at para. 2.12 above, this shortfall in capacity for air freight will be addressed by R3. Indeed, recent proposals by Heathrow Airport Ltd to introduce mixed mode operations ahead of R3 will provide short term relief to the capacity constraints over the same time period as Manston might become operational[75]. In the longer term, freight capacity at Heathrow is expected to virtually double to 3 million tonnes a year from the 1.7 million tonnes handled in the rolling year to the end of October 2018[76].

4.21 Facilities at Heathrow are also being expanded and modernised in line with Heathrow's Cargo Strategy[77]. The strategy is firmly aimed at ensuring that Heathrow is able to capitalise on the opportunity offered by R3 by providing state of the art cargo handling facilities and overcoming the identified bottlenecks and congestion, including improvements to local road infrastructure[78]. Examples of new facilities being provided include the recently opened facilities for Virgin Atlantic and Delta Airlines aimed explicitly at increasing the amount of cargo that they carry through Heathrow on their passenger operations[79]. There is clearly substantial investment being made to ensure that Heathrow can efficiently increase its cargo throughput, negating the need for spill to other airports[80].

4.22 In overall terms, then, it is clear that there are powerful structural factors as to why air freight is concentrated at Heathrow, based around the strong bellyhold offering and the existence of the freight forwarding/consolidation activity. Evidence would suggest that this is not replicable elsewhere in the UK and certainly not at a small niche airport such as Manston. This has implications for the need case for the development as a whole and, in particular, the likelihood of RSP being able to attract freight forwarders as occupiers of the proposed infrastructure at the Airport, including that on the Northern Grass.

[73] https://news.cathaypacific.com/cathay-pacific-s-manchester-service-to-go-daily-from-december-180062#
[74] RSP Planning Statement, para 6.29 and Azimuth Reports Vol I, para. 4.1.3.
[75] https://afo.heathrowconsultation.com/wp-content/uploads/sites/4/2019/01/Making-better-use-of-our-existing-runways-Final-single-pages.pdf
[76] York Aviation analysis of CAA Airport Statistics.
[77] https://www.heathrow.com/file_source/Company/Static/PDF/Partnersandsuppliers/heathrow-cargo.pdf.
[78] https://www.aircargonews.net/news/airport/single-view/news/segro-planning-to-replace-heathrows-cargo-horseshoe.html.
[79] https://www.aircargoweek.com/virgin-and-delta-to-move-into-dnata-city-east/.
[80] This does not mean that airports with growing bellyhold capacity, such as Manchester will not also increase tonnage carried nor that there will not be growth at existing integrator bases such as EMA and Stansted reflecting their key role in the UK distribution network.

The Geographic Distribution of UK Air Cargo Demand

4.23 Another key factor to understand is the geographic distribution of air freight demand. It is important not to confuse, as Azimuth do, the clear economic preference for freight to be flown out of Heathrow due to the economics of consolidation with the true origin of the demand for air freight. This is important as it influences the choices made as to how any excess freight that Heathrow cannot accommodate in future would be shipped as well as the economic choices that drive the point of consolidation in the first instance.

4.24 At the outset, it should be made clear that there is very limited data on where air cargo originates from or is destined for within the UK. However, some indications are available from other research, notably work by MDS Transmodal, in conjunction with York Aviation, for Transport for the North in relation to its International Connectivity Strategy[81]. MDS analysed a series of datasets on air freight and road haulage and estimated that around 14% of UK air freight demand originates in or is destined for the North of England, for example. We also know that air cargo is often trucked a considerable distance before being loaded on to aircraft.

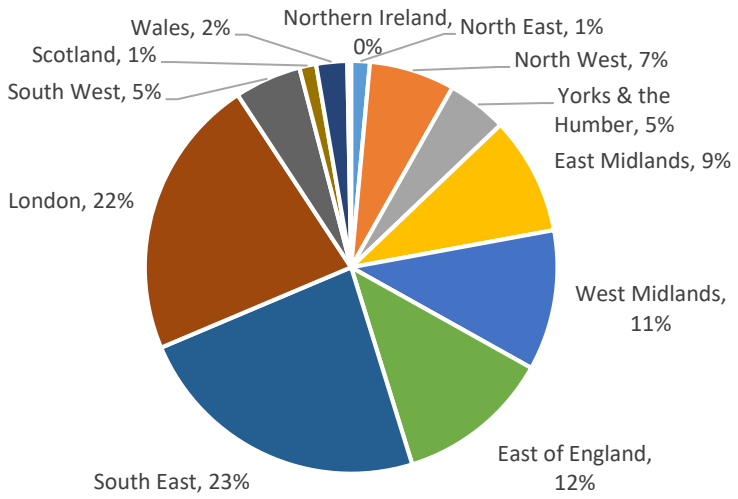
4.25 To estimate the amount of cargo tonnage originating in or destined for the different regions of the UK, we have used a simple gravity model that distributes air cargo regionally across the UK based on:

- for exports, the distribution of manufacturing employment in the UK. This is intended to reflect that air cargo exports are likely to be primarily manufactured goods;
- for imports, the distribution of UK population. This is intended to reflect that imports are in many cases destined either for consumers directly or retailers. This is clearly a simplification but we believe a sensible one given the data available;
- a relatively low distance decay factor of 1.5, reflecting the relative insensitivity of air freight to trucking times. This has also, in part, been calibrated to reflect MDS's findings for Transport for the North.

4.26 The resulting distribution of air cargo demand is shown in **Figure 4.4**. It shows that, while there is a heavy concentration of demand in the Greater South East, there is significant demand located across the country. It is misleading to assume that cargo that is currently flown from the London airports is necessarily destined for or originating in the South East and so easily available to Manston.

[81] https://transportforthenorth.com/wp-content/uploads/Final-International-Connectivity-Evidence-Report.pdf, para.

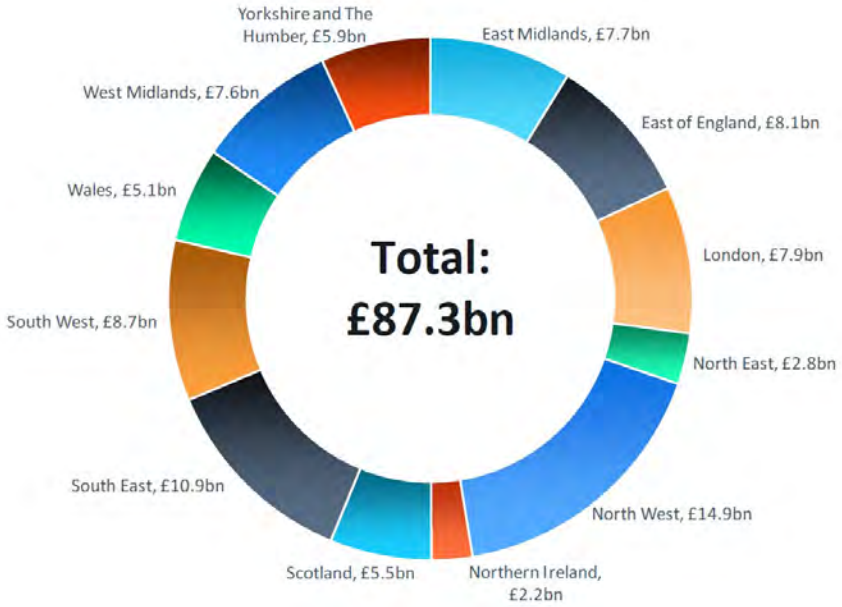
Figure 4.4: Modelled Regional Distribution of UK Air Cargo Demand



Source: York Aviation analysis of CAA Statistics, ONS and Google Maps Data

4.27 More recent analysis by Steer for Airlines UK[82] provides more specific data on the GVA value of air freight exports by air by region. This is shown in Figure 4.5.

Figure 4.5: GVA Currently Dependent on Air Freight by Region



Source: Steer 2018

[82] Assessment of the Value of Air Freight Services to the UK Economy, Steer, October 2018, Figure 5.6.

4.28 The issue for Manston is that it is poorly placed geographically to serve the totality of this demand. In the event of air cargo capacity constraints in London this demand is likely to look initially for cargo capacity closer to home at the major regional airports, particularly those that that are developing broader long haul passenger networks. Even if freighter aircraft are required for this demand, there are likely to be substantially better options than Manston, not least the national air freight hub at East Midlands, with its central location in the UK.

Air Cargo Capacity at UK Airports

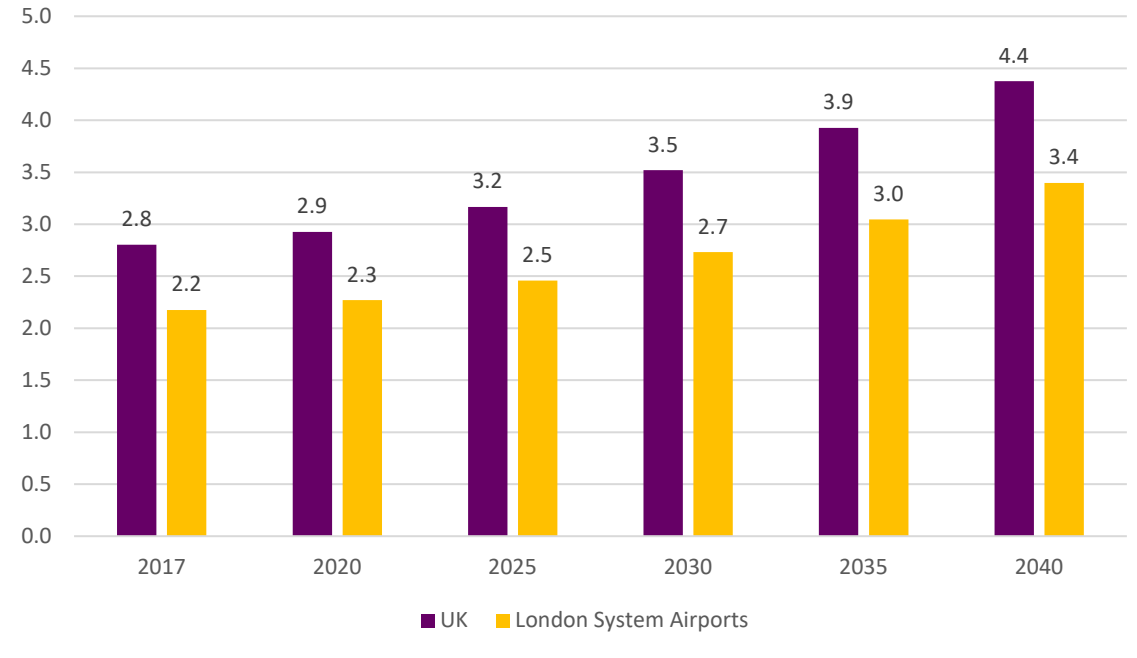
4.29 In our November 2017 Report, we set out an assessment of expected cargo tonnage growth by reference to GDP. We have updated this to enable an assessment of the extent to which there is likely to be any shortfall in capacity available across UK airports as a whole. As in our 2017 report, we have adopted a relatively simple approach, growing existing air cargo demand forward in line with GDP projections for the UK economy. This is in line with our analysis of the link between cargo volumes and the key economic drivers described in our November 2017 Report. The GDP forecasts used are the latest forecasts produced by the Office for Budgetary Responsibility at the time of writing. These are taken from:

- Economic & Fiscal Outlook (October 2018), which provides short to medium term forecasts;
- Fiscal Sustainability Report (July 2018), which provides long term forecasts for the UK economy.

4.30 These forecasts suggest average real growth in UK GDP of around 2% over the period to 2040. These forecasts are slightly lower than those used in our November 2017 report, reflecting more fully the outlook for the economy post Brexit. These slower growth rates have been offset by the uptick in growth observed in the UK air cargo market in 2017, which has increased our baseline. The resulting projections of air cargo demand at the London system airports and across the UK are set out in **Figure 4.6**. This analysis sees total UK air cargo demand reach around 4.4 million tonnes by 2040 and demand in the London system[83] of around 3.4 million tonnes by 2040.

[83] Based on the London airports current share of the national market.

Figure 4.6: Air Cargo Tonnage Forecasts (million tonnes)



Source: York Aviation

4.31 Next, we considered the extent to which the demand identified above could be met by UK airports and the London system airports. This is, again, in line with our approach taken in our work in November 2017 and with our previous research for the FTA in 2015 relied on, wrongly, by Azimuth.

4.32 The first step is to assess the extent to which the bulk of air freight demand will be accommodated in passenger aircraft. In order to estimate the likely bellyhold capacity that will be available through the period to 2040, we have produced projections of passenger ATM[84] demand for each of the top 10 freight airports in the UK in 2017, along with a residual forecast for Other UK airports. For Heathrow, Gatwick and Manchester, these forecasts have been split into domestic, EU and non-EU ATMs. The future years for each airport have been based on the ATM forecasts produced by the Airports Commission for which detailed data files have been released[85]. Years prior to the opening of Runway 3, use the Base ATMs scenario, while post opening uses the Heathrow's ATMs scenario, which reflects the third runway. This will understate the potential at Heathrow in the short to medium term if it gains approval for full mixed mode use of the runways as an interim step before R3 allowing additional global air services providing bellyhold capacity.

[84] ATM – air transport movement.
[85] https://www.gov.uk/government/publications/airports-commission-documents-and-data.

4.33 The existing freight loads per passenger ATM for each airport have been estimated using CAA Airport Statistics. These average loads have then increased by between 0.5% and 0.75% per annum at Heathrow. These rates have been slowed in the short term compared to our 2017 report to reflect the increase in average loads at Heathrow seen in the last year. CAA Airport Statistics suggest that the average tonnage per passenger ATM has grown by 8.5% in the last year. This may reflect the introduction of new aircraft such as the Airbus A350 that have higher freight capacity. The implication of this large short term change is that Heathrow's total bellyhold capacity may actually be higher than previously forecast. This ultimately reduces the chance of there being excess demand for Manston to capture and this has been a strong contributory factor to the decline in some of the forecast scenarios. Other airports have also seen some increase in average loads in the past year, which has further increased available bellyhold capacity. At these other airports, we have assumed that loads will grow at around 1.6% per annum tapering to 1.0% per annum in the longer term. This reflects trends in average loads identified from CAA Airport Statistics over recent years.

4.34 Having assessed the extent to which future air freight demand is likely to be accommodated in the bellyholds of passenger aircraft, we then consider the capacity provided by likely freighter ATMs at the existing airports handling such movements. This 'Business as Usual' assessment of freighter tonnage expected at these airports takes, as a conservative assumption, growth in freighter ATMs at each airport of 0.4% per annum, in line with expected growth rate from the Department for Transport's Aviation Forecasts 2013[86] so as not to understate any potential demand for additional air freighter movements. We have used a 0.4% p.a. growth assumption although the more recent DfT position, as reported in para 3.18 above, is that no growth is a more reasonable assumption. Taking this assumption is inherently conservative and more likely to overstate than understate the actual need for freighter movement capacity and understate the available headroom to accommodate such movements.

4.35 Once again, average loads per freighter ATM have been estimated for each airport from CAA Statistics. As with bellyhold cargo per ATM, there has been an upward trend in average loads on freighters in recent years of around 1.1% per annum (York Aviation analysis of CAA Airport Statistics). This is assumed to continue over the period. This gives us an estimate of the upper bound of tonnage likely to use dedicated freighter aircraft based on the projected movement growth set out above. We term this 'Business as Usual' Freighter tonnage, i.e. the tonnage we would expect to be carried on freighter aircraft based on extrapolation of current patterns of freighter operations at existing UK airports.

4.36 Having assessed the volume of tonnage likely to seek to use freighter aircraft, we have also taken a view as to the likely total tonnage capacity over time of the two largest freighter airports in the UK, East Midlands and Stansted, based on those airports' development plans, and the proposed increase in total cargo capacity at Heathrow, as set out within the NPS:

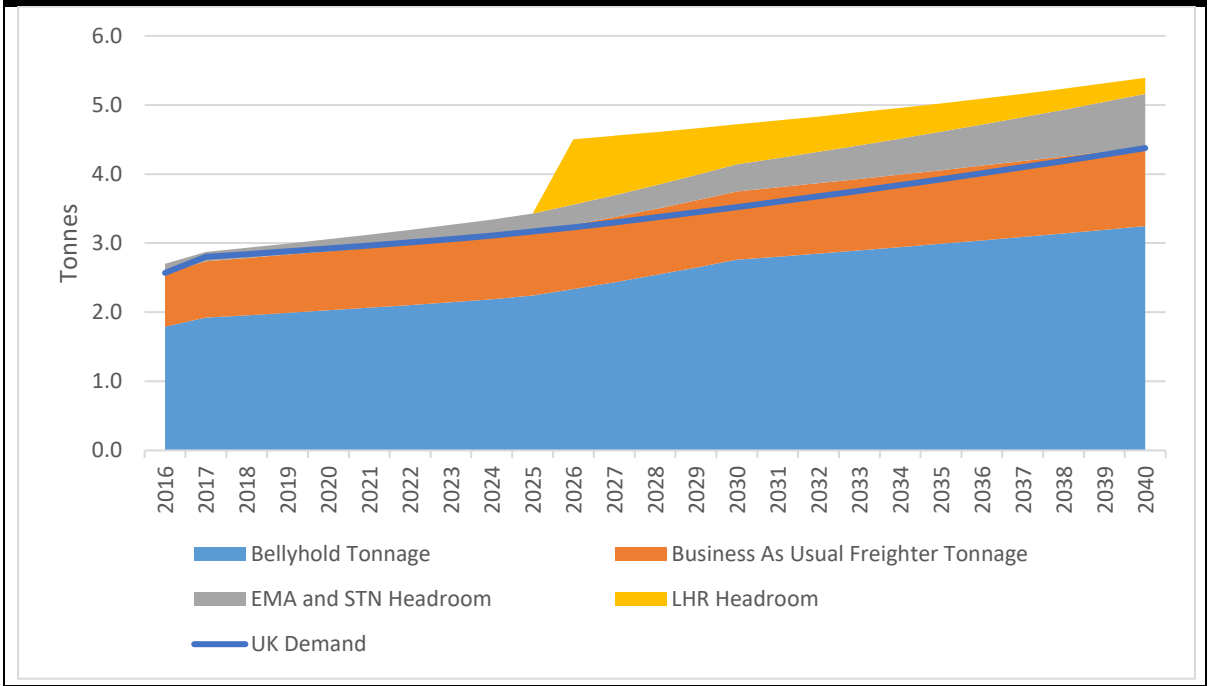
- the Stansted Sustainable Development Plan talks about developing cargo capacity to handle around 400,000 tonnes of cargo. We have assumed that current capacity is around 300,000 tonnes and that this grows steadily over time to 400,000 tonnes by 2040[87];

[86] The exception to this is the small number of freighter movements at Heathrow, which are not allowed to grow until the Third Runway is opened.
[87] Stansted Airport, Sustainable Development Plan, 2015, Summary, page 9.

- the East Midlands Sustainable Development Plan describes its runway capacity as being able to support a 10 million passenger and 1.2 million tonne cargo airport[88]. We have assumed that this capacity could be developed over time to 2040 from an assumed base capacity of 400,000 tonnes. The airport is not subject to any specific ATM limit;
- the NPS states that the development of the third runway at Heathrow will enable a doubling of freight capacity at the airport[89] This would suggest that the cargo facilities will be able to handle around 3 million tonnes per annum. We have assumed that this headroom would be available from the point of the new runway opening.

4.37 This assessment of the cargo capacity headroom at Heathrow, Stansted and East Midlands helps provide an assessment of how any excess demand identified could be handled by freighters in the UK if this were the response of the market to any shortage of bellyhold capacity, after having taken account of bellyhold capacity. The resulting estimates for air cargo tonnage capacity for the UK as a whole and the London system over time are shown in **Figures 4.7** and **4.8**.

Figure 4.7: UK Air Cargo Capacity

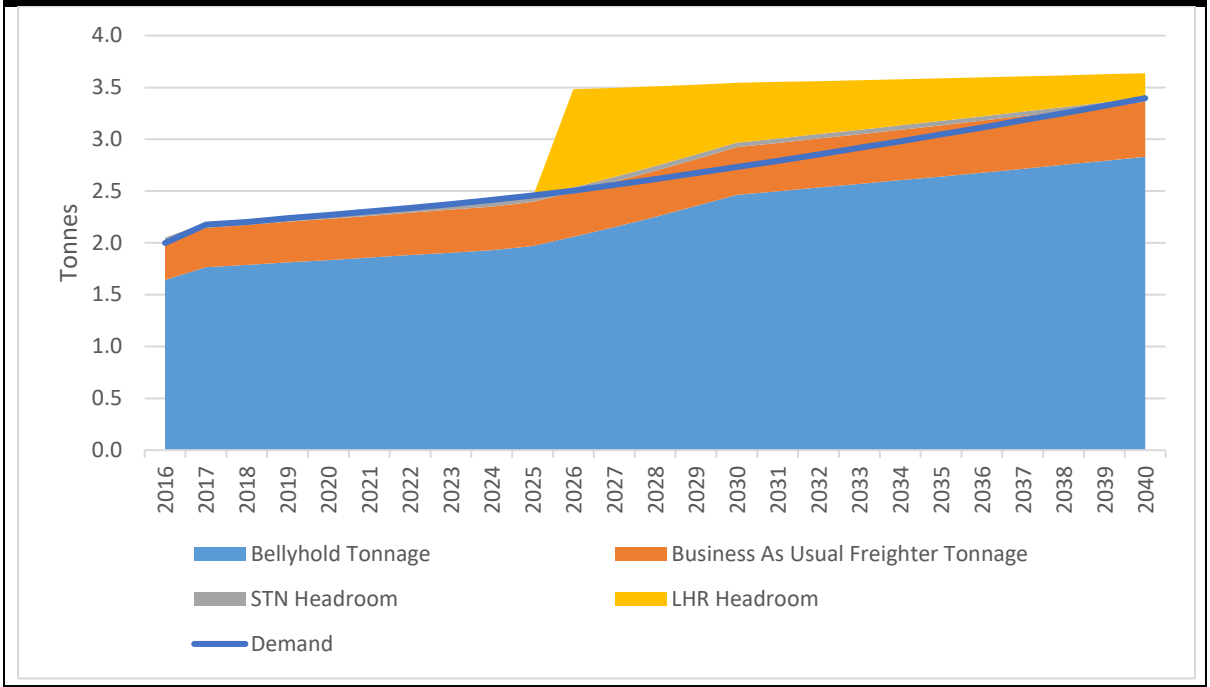


Source: York Aviation

[88] East Midlands Airport Sustainable Development Plan, 2015. Page 75.
[89] Airports National Policy Statement, 2018. Page 32.

4.38 At a UK level, our analysis suggests that there are unlikely to be capacity issues in the cargo market until well beyond 2040 even on the conservative (worst case) basis that we have adopted by retaining the DfT's 2013 projection of possible growth in freighters. Based on the latest DfT projections of no such growth, there is simply no capacity shortfall at all. Once the third runway is opened at Heathrow, there is in fact likely to be excess capacity in the market particularly in the light of the expected doubling of freight capability at the Airport as set out in the NPS, which is likely to soften demand for supporting freighter capacity dedicated to general air freight (accepting that integrator/express freight is a separate market to a significant degree).

Figure 4.8: London System Air Cargo Capacity



Source: York Aviation

4.39 The situation at the London airports is slightly different. With Heathrow's bellyhold growth relatively constrained in the short term, there could be potentially some limited capacity constraints in the very short term before mixed mode and R3 are operational. However, allowing for headroom at Stansted, there are no capacity constraints in the medium term. Once R3 is opened, excess capacity develops rapidly. The London system's freight capacity does start to fill up as Heathrow begins to fill up once again but Heathrow's freight capacity plans suggest that there will still be headroom by 2040. Assuming mixed mode (independent parallel approach operations are permitted at an early date), this shortfall will not arise.

4.40 The implications for Manston Airport are that, even in pure volume terms, push factors from other airports in London are unlikely to provide opportunities for growth before at least 2040 and beyond assuming no further airport capacity comes on stream at the main London airports. This is before any consideration is given to Manston's suitability to serve the markets in question. In the short to medium term, there might be some very limited constraint in the London system before the third runway at Heathrow is opened. However, this is largely a function of bellyhold constraints at Heathrow and it is clear that the preferred option for such freight is alternative bellyhold capacity.

4.41 Logic would suggest that what will be pushed out is relatively low yielding, general air cargo that is more sensitive to price and less sensitive to time. Essentially, this is akin to business passengers forcing leisure passengers out of Heathrow. This type of air cargo is not likely to see pure freighters as an effective alternate, given the higher prices involved. It is more likely to seek out alternative bellyhold capacity at UK regional airports (which might actually be closer to its point of origin given our analysis above) or travel via truck to the continental European airports.

Prospects for Manston

4.42 In our November 2017 Report, we set out 'realistic' forecasts of freighter movements and freight tonnage at Manston, drawing on the methodology that we used in our earlier work for the Freight Transport Association and upon which Azimuth seek to rely. In essence, these have not changed, except that our previous projections may have been on the optimistic side given the continued trend away from the use of dedicated freighter aircraft and with greater clarity regarding the expected increases in capacity for freight at Heathrow. Even on the most optimistic basis, we would not expect Manston to be able to attract more than around 2,000 annual freighter aircraft movements and, more likely, it may struggle to attract more movements than it did when previously in operation. If we were to fully update our forecasts for Manston, we would expect the realistically projected number of dedicated freighter movements to be even lower given deteriorating market conditions, increased competition and economic uncertainty.

Conclusions

4.43 Examination of market trends and the structure of the air freight market make clear that there is no role for Manston, other than possibly as a niche cargo operation, as with its historic operation. The trend in favour of bellyhold for the carriage of general air freight is clear. This freight forwarding sector is heavily concentrated around Heathrow for this very reason and the associated consolidation activity essential drives the choice of airport based on the most economical freight rates available for any consignment. This is highly unlikely to be a dedicated freighter option from an airport remotely located in East Kent.

4.44 Going forward, Heathrow will have substantially enhanced capacity for air freight operations (around double its current throughput) and modernised facilities negating any 'push' factors that might drive users to even consider Manston.

4.45 The integrators are already well established at East Midlands Airport in particular as well as using Heathrow and Stansted to serve the main markets in England, with these airports stated as having scope to increase air freight capacity by 800,000 and 150,000 tonnes per annum respectively[90]. Manston is too far from the distribution centres along the M1/M6 axis to function as an integrator base, leaving aside that the proposed night movement restrictions would render any such operation unviable for the airline/integrator.

4.46 This leaves niche/specialist cargo operations as the only possible market for Manston. This would be consistent with the types of cargo that Manston used to handle[91]. Ultimately, this is a very small market and unlikely to result in Manston handling more freighter movements than it did historically. This has profound implications for the Need Case as a whole.

[90] See para. 4.36 above.
[91] See Figure 3.9 of our November 2017 Report.

5 AIR PASSENGER FORECASTS

In this section, we set out our analysis of the passenger potential for Manston. The Azimuth Reports set out no analysis of the market and merely assert that certain airlines might operate. This is not credible and certainly not sufficient to underpin any business case for investment in the development of Manston. Given the importance of passenger related revenues to the viability of any airport's operation, this is significant.

We set out here an analysis of the passenger market that Manston might serve and demonstrate that, at best, it might achieve around half of the number of passengers that RSP's need case depends on. To do so, there will need to be an allowance for passenger aircraft movements in the night period, which have not currently been assessed in RSP's ES.

The viability to the airlines of passenger operations remains questionable and there is no guarantee that any passenger services would be viable for the airlines on a sustainable basis and without some form of public subsidy.

Basis for Passenger Forecasting

5.1 In our November 2017 Report, we set out the basis for assessing any potential for cargo operations at Manston. Whilst we indicated that more likely passenger forecast would be of the order of half[92] of those set out in the Azimuth Report, we did not set out further detail. As the passenger market is significant in terms of assessing the potential for viable operations at the Airport taken as whole, we set out further detail on the likely passenger market in this section in order to assist the Examining Authority. We have adopted the same approach to developing these forecasts as we do for other clients operating or investing in regional airports in the UK.

5.2 Whilst the need for the Airport and its designation as an NSIP is fundamentally driven by the asserted need for a dedicated air freight hub, passenger services and the economic benefits that potentially derive from such passenger flights form part of RSP's socio-economic case. Taken in the round, then, these services form part of the need case and, hence, the demand for such services requires full justification. Passenger operations, both in terms of revenues and costs, will also be key elements that underpin the financial viability of the operation and whether the proposition is likely to be economically sustainable.

5.3 Azimuth provide no details of how the specific passenger and associated aircraft movement forecasts have been built up. It is simply postulated that a number of airlines and air services might operate. This is not sufficient nor consistent with the approach to forecasting normally required to justify an airport planning application in our experience.

[92] York Aviation, November 2017, Executive Summary, para 12.

5.4 We note that RSP's Planning Statement, at para. 9.44 asserts the passenger 'forecast' of 660,000 passengers in first year of passenger operations (Year 3) is driven by lack of capacity at other London airports. This statement appears to ignore capacity developments at other London airports, including the planning approval recently granted to Stansted to increase from 35 million to 43 million passengers a year[93] or developments such as Ryanair's decision to base aircraft at Southend Airport from summer 2019[94].

Methodology

5.5 Unlike Azimuth, our approach to forecasting the potential of Manston for passenger services is to consider the level of demand in the Airport's catchment area and how this might grow in future. We accept that there is a need to consider the airline response to this demand in terms of the frequency of flights they might offer as a basis for setting out the number of passengers they might carry. However, it is not sufficient to simply assert that IF an airline was to commence services it would carry X thousand passengers, the requirement to present a compelling case requires some evidence as to the likelihood of each airline commencing services (absent any firm documented commitment), which would normally be based on the assessment of the levels of demand and whether these would be sufficient to support viable services.

5.6 Given the importance of passenger services to the viability of airport operations, developing a robust forecast of passenger demand is critical to the assessment of the overall viability and sustainability of the operation of the Airport, which we consider further in **Section 7**. We present here an assessment in a form consistent with that which would be expected in support of an airport planning application.

Kent Passenger Market

5.7 The UK Civil Aviation Authority (CAA) undertake sample surveys of departing passengers using the main UK airports on a continuous basis[95]. This data base runs to almost 200,000 records and contains information about the passengers' home or journey origin, their end destination airport and any intermediate stops, the purpose of travel, the airline flown with and other demographic information. Summary reports are published[96] but York Aviation, in common with most other experienced aviation consultants, use the raw survey data purchased from the CAA to analyse and produce passenger forecasts for airports in the UK. This data enables the scale of the market in any individual airport's catchment area to be estimated along with the nature of that demand – business/leisure, UK outbound or foreign visitor, destination or origin of the air journey.

[93] https://mediacentre.stanstedairport.com/london-stansted-gets-the-go-ahead-to-boost-the-regions-economic-growth-and-create-5000-new-jobs/
[94] https://www.independent.co.uk/travel/news-and-advice/ryanair-southend-airport-base-easyjet-cheap-flights-stansted-a8396956.html
[95] This includes all of the main London airports but not Southend. Smaller regional airports are surveyed on a more periodic basis, typically every 3-5 years.
[96] https://www.caa.co.uk/Data-and-analysis/UK-aviation-market/Consumer-research/Departing-passenger-survey/Survey-reports/.

5.8 We have analysed the 2017 CAA Survey data to look at the scale and nature of the air passenger market in Kent. We have chosen to restrict the analysis to Kent because it is unlikely that a re-opened Manston Airport would attract passengers to any substantial degree from outside of the County due to the surface journey distance and time from Manston to areas beyond Kent, as well as the fact that most of these areas are located closer to larger airports, including London Gatwick, with a much wider range and frequency of passenger services than is ever likely to be delivered at Manston. We recognise that the planned Lower Thames Crossing may make access times quicker from north of the Thames but this will, of course, also speed up journey times from Kent to larger, more established airports with broader networks and frequencies, such as London Stansted, London Luton and even London Southend. Hence, any potential passenger gain for Manston is likely to be more than offset by passengers travelling north of the river to more easily avail of a wider range of air services. There is a real risk that the attractiveness of services from the larger airports could further reduce the pool of demand available to a re-opened Manston compared to that which we have assessed below.

5.9 In 2017, as can be seen in **Table 5.1** below, the total market size for Kent was 4.97 million passengers[97]. Over 1.2 million of these are travelling to long haul points and so, other than via a hub connection, these are unlikely to be served by a re-opened Manston Airport[98]. This leaves around 3.8 million short haul and domestic passengers in the County.

Table 5.1: Kent Passenger Demand 2017

Passenger Type	All Catchment
Domestic	372,000
Long Haul	1,221,000
Short Haul	3,373,000
Grand Total	**4,966,000**
Source: CAA Survey 2017	

5.10 However, Manston Airport's location at the eastern extremity of the Kent peninsula means that the Airport is unlikely to draw equally from all districts within the County and, as such, the total underlying market for the Airport is likely to be well below 3.8 million passengers. **Table 5.2** illustrates the time taken to drive to competitor airports from key urban centres in each district. As can be seen, Manston Airport would have the shortest drive time from only 6 of the 13 Kent districts.

[97] This figure may not include some passengers who chose to use London Southend Airport which was not included in the CAA Survey for that year. We would anticipate the figure to be relatively low given the scale of operations at Southend and the route overlap with other larger airports accessible to Kent.
[98] We note the aspiration for a small number of charter flights bringing cruise passengers to Manston

Table 5.2: Drive Time to Competitor Airports from Kent Districts				
District	Manston Airport	London Gatwick	London Stansted	Southend Airport
Thanet	14	91	111	108
Canterbury	30	65	85	85
Dover	35	70	104	105
Swale	40	50	70	65
Shepway	45	65	90	90
Maidstone	45	40	60	60
Ashford	50	55	80	80
Medway	50	45	60	60
Gravesham	55	40	45	50
Dartford	60	35	45	45
Tonbridge & Malling	65	30	80	60
Sevenoaks	65	30	60	55
Tunbridge Wells	75	40	70	90
Source: York Aviation/Google Maps				

5.11 A key differentiator for Manston Airport when compared to other UK regional airports is that its location on a coastal peninsula means that it is not surrounded on all sides by population centres from which it can draw demand, with a large part of the area surrounding Manston being sea.

5.12 In making decisions on which airport to use, passengers would be likely to weigh up three key elements, service frequency (convenience), fare price and journey time/cost to airport. Of these, Manston is always likely to be beaten on the first by larger airports in the South East, whilst fares are likely to be no better than available elsewhere due to the spread of low fares airlines across all airports surrounding London. This means that the only benefit Manston Airport could offer would be on journey time savings and, even then, this would be limited in some cases. In determining the scale of the market which may, thus, be available to Manston, we have made assumptions about how much of the market could be attracted to use the Airport if services were provided based on experience at other regional airports seeking to penetrate their local market in competition with larger airports.

5.13 It is not realistic to assume that Manston Airport would be able to attract all of the market from any district, either in totality or even at individual route level for a number of reasons, but principally because:

- for many destinations, there is insufficient demand to make operations viable for the airlines even with market stimulation from low fares, meaning these passengers must be consolidated on to services at larger airports; and
- routes operated from Manston Airport would still be competing with services from other airports which may have more attractive frequencies, flight times, or fares.

5.14 It is, therefore, necessary to determine how much demand could realistically be attracted to the Airport. In our previous work in Kent, in relation to Lydd Airport, we assumed that, in core districts adjacent to the Airport, 60% of the market could be captured if regular services are operated to any given destination and that other, more distant districts, would attract a much lower % share of the total available market given competition from other airports. In practice, this approach may now be generous to the Manston because, in the intervening years since the Lydd Inquiry in 2011, there has been significant growth of low fares services from London Gatwick that will be very appealing to passengers from much of Kent. Furthermore, given how little difference there is in journey times between airports from some key districts, the attractiveness of larger airports is likely to be far higher than Manston Airport overall other than in the very local area.

5.15 The 60% level of market capture is also higher than we observe elsewhere in the UK when regional airports are in competition with their larger, more dominant, neighbours. Nonetheless, we have adopted a 60% local market capture from districts where Manston is the closest airport in order not to understate the potential demand that Manston might attract as an upper bound. We have assumed that for all other districts in Kent, 5% of passengers could be attracted to Manston. Overall, we have erred on the optimistic side in our projections of how much passenger traffic Manston could realistically attract and sustain over a 20 year period so as to indicate a maximum potential rather than a most likely forecast.

5.16 Following this approach shows that, in 2017, the total market available to the Airport would be around 1 million passengers, across all short haul and domestic routes (point to point). However, this demand is spread across a total of nearly 240 destinations (some of which were reached via hubs rather than on direct services). On the assumption that Manston Airport will neither serve all of these destinations nor have sufficient hub connectivity, notwithstanding the possibility of an Amsterdam service, to provide competitively convenient connections to all of these destinations, the figure of 1 million passengers represents an unachievable upper bound presently. The realistic potential market is substantially below this figure if the Airport was open for passenger services today.

5.17 Further analysis of this market potential for the Airport shows how quickly the demand potential falls below levels which would be considered viable for most airlines to be interested in operating a service. For an airline, the decision whether to serve an airport is not about the total level of demand in a catchment area but whether there is sufficient demand to a particular destination to make a service viable at a frequency of service sufficient to ensure that an individual route will be competitive with services from other airports and/or whether there is sufficient demand across a bundle of routes to support the basing of aircraft.

5.18 In **Table 5.3**, we set out the 30 destinations with the highest demand based on the applied market capture rates.

Table 5.3: Top 30 Market Potential in 2017	
Destination	**Potential Demand**
Alicante	38,000
Dublin	34,500
Tenerife	32,500
Palma	32,000
Glasgow	30,500
Rome (FCO)	25,500
Lanzarote	25,000
Malaga	24,500
Faro	24,500
Barcelona	23,500
Venice	22,500
Amsterdam	22,000*
Belfast (BFS)	21,500
Geneva	21,500
Mahon	19,000
Edinburgh	19,000
Malta	17,000
Oslo	14,500
Paphos	14,000
Fuerteventura	13,000
Ibiza	13,000
Lisbon	12,000
Milan (MXP)	12,000
Bucharest	12,000
Murcia	11,500
Heraklion	11,000
Las Palmas	11,000
Corfu	10,500
Madrid	10,000
Stockholm	10,000
Note: *Excludes onward connecting passengers. KLM typically expect around one third of the route to be point to point, with the remaining two thirds to be onward connecting meaning that, if it operated a service to Amsterdam, the route would carry more passengers when those connecting in Amsterdam are included.	
Source: CAA Survey 2017 and York Aviation	

5.19 On the basis that many airlines would, in our experience, be seeking at least 30,000 passengers for a summer-only service, only one destination would have achieved this level of potential demand in 2017, Malaga (Dublin would reach this level but is a year-round type destination which would likely require greater demand to be sustainable overall). This illustrates how dependent services from the Airport would be on stimulation (or destination switching[99]) to reach viable passenger levels to make them attractive to airlines.

York Aviation Passenger Forecast

5.20 In order to project forward the market, we have applied underlying demand growth rates from the DfT's 2017 UK Aviation Forecasts[100]. In the first instance, it is worth pointing out that applying growth of 2% per annum[101] to the total underlying potential market for Manston would suggest that by 2021[102], the total potential market from which Manston could draw passengers would still be less than 1.1 million passengers. On this basis, 662,000 passengers as forecast for Year 3 of RSP's Manston Airport demand forecasts[103] would amount to the Airport capturing over 60% of all available short haul demand within its reasonable catchment area based on our assumed market capture rates set out above in the first year of passenger service operations. This is simply not credible given how few of the 240 routes are likely to reach a viability threshold sufficient for an airline to commence operations in the first year.

5.21 We have developed more realistic passenger forecasts using a market-led semi-bottom-up approach which takes into account the scale of the market at route level and overlays the bottom-up likely provision of airline capacity to meet this. This is typical of approach to demand forecasting for regional airports that we undertake for numerous airport operators and investors. However, as pointed out above, the market capture assumptions used to assess the total potential market available to Manston err on the optimistic side such that the forecast represents more of an upper bound of plausibility.

5.22 Our forecasts are derived through the following steps:

- identifying the underlying demand for all routes from the catchment area (Kent);
- determining the market capture which could be achieved if services were offered from Manston Airport and applying these to the above;
- applying stimulation to the underlying demand at a route level to reflect stimulation of the market through a new route and as a proxy for destination switching;
- growing the route level demand forward by appropriate market growth rates (usually derived from the DfT UK Aviation Forecasts);
- determining the likely airline type[104], aircraft type/size and frequency to operate each route. Relevant passenger load factors are also applied at this stage based on industry norms;

[99] Passengers choosing where to fly based on the services available rather than their underlying market preference.
[100] UK Aviation Forecasts, Department for Transport, October 2017.
[101] the DfT average growth rate for short haul and domestic passengers from 2016 to 2030.
[102] Indicated as Year 3 in the RSP Planning Statement, para 3.105.
[103] RSP Azimuth Report, Vol III
[104] Low cost, full service etc.

- ✈ growing airline frequency, capacity and load factor as underlying demand grows.

5.23 The first two steps are as previously explained, with the application of 60% market share for districts which are closer to Manston Airport than others and 5% from all others. As previously identified, we believe that the 60% may be generous for a number of reasons.

5.24 In making allowance for some stimulation of the local market associated with the introduction of new services at Manston, we have been cautious for a number of reasons, in part explained previously, but also because much of the stimulation is likely to be effectively destination switching by local passengers choosing to fly from Manston rather than elsewhere rather than pure stimulation of the underlying market[105]. Taken in the round, this does not increase the overall pool of passengers from which the Airport can draw but may result in individual routes becoming viable to the airlines at an earlier date but slowing the introduction of other routes. Typically, in our experience, the level of market stimulation seen at the individual route level can be in the order of 10-40% depending on the airline and route[106]. In order to make routes financially viable, it is likely that airlines will seek to serve well established core destinations and these will be the hardest to stimulate given the sheer level of frequency already offered from competing airports. For this reason, we have adopted a 20% market stimulation rate to reflect the impact of new passenger services at Manston on individual destination markets, which may, in practice, still be too high given the likely route structure focussed inevitably on mature markets already well served. Again, we have erred on the optimistic side so as not to understate the potential.

5.25 Our growth rates are based on the DfT growth rates from 2017 and applied to the latest 2017 CAA Survey data on the scale of the local market. No further adjustments have been made to these to account for Brexit, though clearly there may be circumstances in which the growth rates are supressed by more negative economic outcomes from the Brexit process. This demand suppression would equally apply to any projections of cargo tonnage growth. The growth rates are shown in **Table 5.4** and have been used widely by ourselves in projecting demand for other clients in the UK. These are lower than those used by Azimuth of 4%, partly reflecting a proper interpretation of annual passenger growth rates (see **Section 3**) but also because they are applied to the underlying passenger demand, not the level of growth which could be seen at the individual airport level. The growth at an individual airport could be greater in any one year as new services are launched and step changes in passenger levels from the previous year are achieved. This is taken into account in our overall analysis of the potential for Manston.

[105] High levels of market stimulation were observed with the rapid growth of low fare services in the period 2002-2008 but there is significantly less scope for continued stimulation of the underlying market for air travel through further air fare reductions.

[106] This can be much higher for a limited number of routes, but these levels tend to be for first forays into new markets from much bigger airports

Table 5.4: Applied Annual Market Growth Rates		
Year	Domestic	International Short Haul
2018	1.2%	2.2%
2019	1.2%	2.2%
2020	1.2%	2.2%
2021	1.5%	2.0%
2022	1.5%	2.0%
2023	1.5%	2.0%
2024	1.5%	2.0%
2025	1.5%	2.0%
2026	1.5%	2.0%
2027	1.5%	2.0%
2028	1.5%	2.0%
2029	1.5%	2.0%
2030	1.5%	2.0%
2031	1.2%	1.8%
2032	1.2%	1.8%
2033	1.2%	1.8%
2034	1.2%	1.8%
2035	1.2%	1.8%
2036	1.2%	1.8%
2037	1.2%	1.8%
2038	1.2%	1.8%
2039	1.2%	1.8%
2040	1.2%	1.8%
2018-2040 Average	1.4%	2.0%
Source: Department for Transport		

5.26 Projecting forward the stimulated routes on this basis, we have been able to determine routes which may over time be viable for an airline to from Manston Airport. Whether they would constitute a viable operation for the Airport, particularly given the cost of building a new passenger terminal is debatable and something we consider further in **Section 7**.

5.27 We have assumed that routes would be started when stimulated demand reaches 30,000 passengers per annum. This mainly covers leisure routes, though would also cover Amsterdam and Dublin initially notwithstanding concerns that this passenger volume may not be sufficient for year round services at a reasonable frequency of service, along with Glasgow and Edinburgh over the longer term. The choice of 30,000 passengers per annum equates broadly to:

- 3 flights per week for a 30-week summer period by a 189-seat Boeing-737-800 aircraft;
- 2 flights per week, year round for a 189-seat Boeing-737-800 aircraft;
- 5 flights per week, year round by a 78-seat Dash-8-Q400 or Embraer E175 aircraft.

It should be noted that at these levels of frequency, the 60% market capture share is very optimistic given the level of comparative frequency from neighbouring airports.

5.28 For the Amsterdam route, we have assumed that KLM would potentially return to this route and, therefore, would bring benefits of hub connectivity which would increase demand for the route. We have assumed a ratio of one third point-to-point demand, and two-thirds onward connecting. However, as we have noted in **Section 3**, RSP's detailed fleet forecasts assume the route would be operated by Fokker F70 aircraft, an aircraft type now fully retired by KLM. Given the opportunity costs are higher with newer aircraft, such as the Embraer E175, than for a fully depreciated older F70 aircraft, it is not certain that operating a more marginal route to Manston would be a priority over other route opportunities with a newer more expensive aircraft.

5.29 Overall, we have assumed the following as a basis for assessing what might actually be operated:

- Ryanair would operate the bulk of services to leisure destinations along with city points of Dublin and Belfast (both at low frequency). It would use 189-seat aircraft with a starting load factor of 90% in the first year of operation, growing by 0.5% compound until a load factor limit of 93% is reached. However, there must be considerable doubt over this in the short term given recent statements by Ryanair about reducing the number of its bases due to fuel increases and lower fares realised in the market[107];
- KLM would operate the Amsterdam route with an 88-seat Embraer E175. Load factors are assumed to start at 80% and grow by 0.5% compound per annum until a load factor limit of 88% is reached. These load factors are higher than Azimuth assume but reflect the levels that the service will need to achieve long term for the airline to commit the aircraft resource to the services. This may, hence, overstate the early year forecasts;
- Flybe would operate to Glasgow and Edinburgh[108], although would not launch these routes until both are viable so as to increase market presence in Kent. Routes would be operated with Dash-8-Q400 aircraft with 78-seats and have a static load factor of 75% throughout. Due to the timing of the Edinburgh route reaching viable demand levels, this means these routes are not launched until the end of the forecast period.

5.30 **Table 5.5** presents our forecasts by route at 5-yearly intervals (plus 2039) and indicates the assumed airline and frequencies.

[107] http://www.travelweekly.co.uk/articles/322988/oleary-extends-ryanair-contract-despite-plunge-into-red.

[108] It should be noted that there is some short term doubt as to whether Flybe will continue in operation and, assuming it does, it is not clear that the prospective new owners flying under a Virgin Atlantic brand would be willing to start services at a small regional airport given the stated intention to focus on hub connections at Heathrow and Manchester, as well as serving Southend as part of the tie up with Stobart Air. There would be few alternative airlines suitable to commence domestic flights of this nature.

Table 5.5: Route Level Forecasts for Selected Years							
Destination	**Airline**	**2021**	**2026**	**2031**	**2036**	**2040**	**Notes**
Alicante	Ryanair	41,000	53,000	54,000	54,000	71,000	Starts 2-weekly year-round, increases over time
Dublin	Ryanair	35,000	36,000	54,000	54,000	54,000	Starts 2-weekly year-round, increases over time
Palma	Ryanair	41,000	42,000	42,000	54,000	54,000	Starts 2-weekly year-round, increases over time
Tenerife (TFS)	Ryanair	35,000	36,000	36,000	54,000	54,000	Starts 2-weekly year-round, increases over time
Glasgow	Flybe	0	0	0	0	43,000	Starts as daily service year-round
Rome (FCO)	Ryanair	20,000	31,000	32,000	36,000	36,000	Starts 2-weekly summer only, increases over time
Lanzarote	Ryanair	33,000	36,000	36,000	36,000	36,000	2-weekly throughout
Malaga	Ryanair	20,000	35,000	36,000	36,000	36,000	Starts 2-weekly summer only, increases to year-round
Barcelona	Ryanair	31,000	31,000	32,000	41,000	42,000	Starts 2-weekly summer only, increases over time
Faro	Ryanair	30,000	31,000	36,000	36,000	36,000	Starts 3-weekly summer only, increases to year-round
Venice	Ryanair	0	21,000	21,000	21,000	32,000	2-weekly summer only, increases over time
Amsterdam*	KLM	0	96,000	105,000	108,000	111,000	2-daily throughout.
Belfast (BFS)	Ryanair	0	0	30,000	31,000	32,000	2-weekly throughout
Geneva	Winter Charter	0	1,000	2,000	2,000	2,000	Starts 8 flights per winter, increases over time
Mahon	Ryanair	0	0	30,000	32,000	32,000	3-weekly summer only
Edinburgh	Flybe	0	0	0	0	30,000	5-weekly
Malta	Ryanair	0	0	0	0	32,000	3-weekly summer only
	Total	**286,000**	**449,000**	**546,000**	**595,000**	**733,000**	
Note: *Includes onward connecting passengers							
Source: York Aviation							

5.31 These passenger projections are based on the stimulated market size grown forward route by route with airline capacity increases only assumed once the underlying demand grows to a level to sustain higher frequencies. Over the forecast period, no additional routes would be expected to reach the minimum threshold of 30,000 passengers sufficient to be included in the forecast.

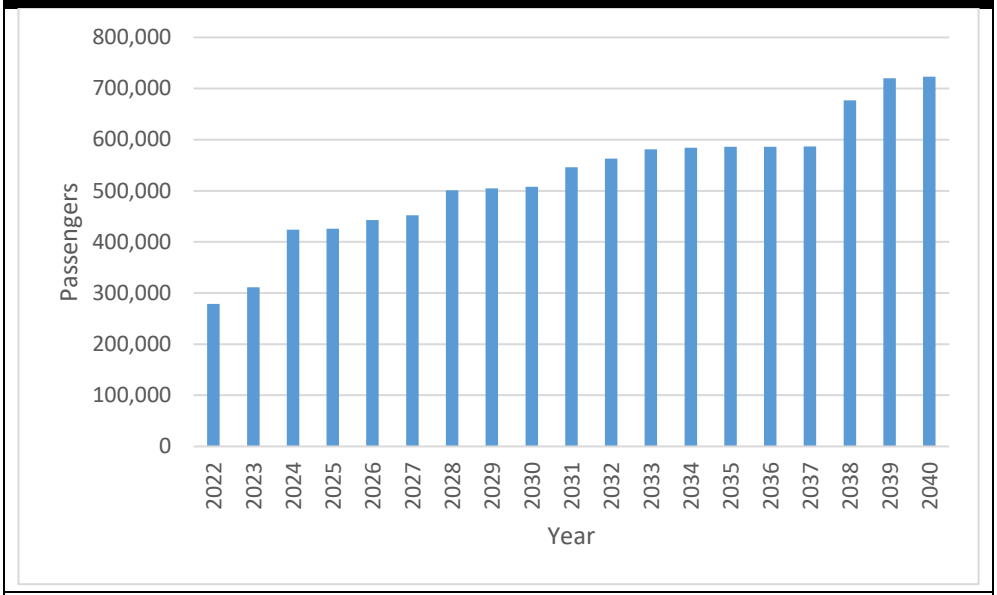
5.32 Crucially, the projected number of viable routes for the airlines and the level of activity may be insufficient to initially sustain any based aircraft by a low fares carrier (such as Ryanair) and, even in the longer term, the demand would likely only support 1 or 2 based aircraft for the summer period only. This contrasts with Azimuth's assertion that they would expect 2 based aircraft from the outset growing over time to 3. Given the nature of the underlying market, we believe this would be unsustainable which would quickly become obvious to any airline. Furthermore, for the reasons identified above, market conditions in the low cost airline sector may rule out the establishment of additional new bases in the short term unless there is a very strong local market, which is not the case at Manston.

5.33 We have not separately included outbound charter flights within the forecasts as leisure demand is already accounted for in our underlying assessment of the market so these flights would not be additional to the assessment above. Some of the routes we have identified as viable on a seasonal basis could be operated by charter airlines rather than a low fares airline; there is increasingly substitutability between the two airline types in short haul markets.

5.34 We have also not directly created a forecast for ad-hoc inbound services associated with the cruise industry. We understand the nature of these and are familiar with the historic aim of Manston Airport to attract more of these flights. It is possible that this sort of service might be attracted given the proximity to Dover but it is difficult to make a precise estimate. We note that the aircraft type assumed by Azimuth for such flights (the Boeing B757-300) has limited range and would not be able to serve Florida as indicated in the ES (Table 3.3). In any event, this aircraft is nearing the end of its operational life and any replacement aircraft is likely to be larger and with different environmental impacts. The estimate of 30,000 passengers, as shown by Azimuth, is significant and probably at the upper end of the range. Any such passengers would be additional to the forecast shown in **Figure 5.1** below, which illustrates our core passenger forecast driven by existing local demand from residents and inbound visitors for all years from 2021 to 2039.

5.35 In overall terms, our passenger forecasts suggest that by Year 20, the Airport might, as an upper bound, be able to attract around 750,000 passengers per annum but the build up to these levels of passenger throughput would be significantly slower than indicated in the RSP Application Documents. Whilst we have updated our assessment of expected levels of passenger demand to the latest full year CAA Survey data for 2017, our overall assessment of a realistic long term passenger forecast for Manston remains at around half of that suggested without supporting evidence, by Azimuth for RSP, as indicated at para. 12 of our November 2017 Report. The maximum forecast for the first year of passenger operations, Year 2, is no more than 280,000 passengers, even assuming any airline could be persuaded to commence operations at all.

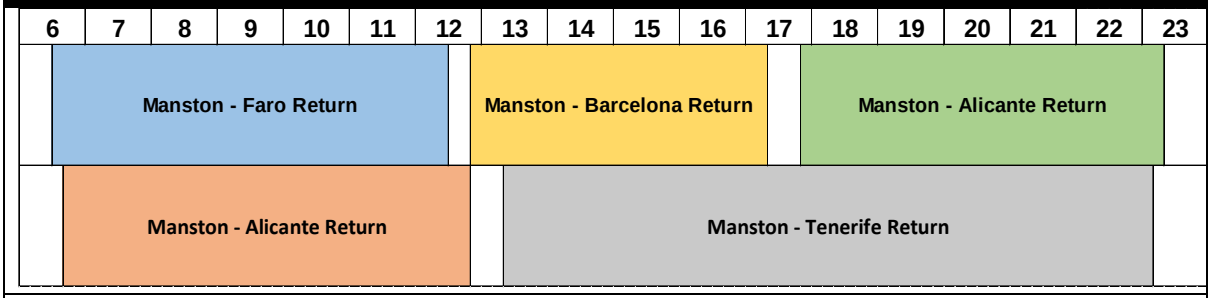
Figure 5.1: Market Based Passenger Forecasts



Source: York Aviation

5.36 Whilst the above assessment represents the potential scale of potential passenger throughput that Manston might attract if it could attract a low cost airline (LCC) to base a number of aircraft at the Airport, this is rendered unlikely given the proposed night movement restrictions in period 23.00-07.00. RSP's stated position that there would be no night flights by passenger aircraft would make it highly unlikely that an LCC would base an aircraft at Manston due to the restricted operating day over and above the market related factors highlighted above. In order to make low cost/low fare operations viable, a low cost airline would expect to be able to make their first departure before 07.00 and/or last arrival after 23.00. This is illustrated by typical aircraft rotation patterns for routes that might operate from Manston in **Figure 5.2** below, showing clearly that in order to achieve 2 or 3 rotations a day (dependent on destination) an airline would likely need to depart before 07.00 and/or arrive after 23.00. By way of illustration, Ryanair's new base at Southend has 48% of the first departures departing before 07.00 and 29% of the last arrivals arriving after 23.00. We would expect a similar pattern at Manston. However, RSP's ES suggests that there would no night movements passenger aircraft – none have been assessed for environmental impact purposes. In the alternative, night operations by passenger aircraft would crowd out freighter movements, which would further restrict the potential for viable freight operations.

Figure 5.2: Typical Low Cost Airline Aircraft Rotation Patterns



Source: York Aviation

5.37 Finally, we would note that these forecasts, whilst optimistic for a number of reasons previously explained, would only be deliverable if an airline could be persuaded to operate the services. The market is not so large, nor the competitive options sufficiently limited, that the Airport would stand out as an underserved market in its own right. Therefore, the only way in which airlines could be persuaded to operate would likely be with very attractive terms. Typically, such terms may involve:

- £0 income per passenger for one or more years from the start of services. This may be followed by gradual step changes;
- A need to underwrite new services until the routes become established, which can lead to an airport having to pay operators for a number of years;
- In addition to both of the above the airport may be expected to provide marketing support and offer accommodation and other services, such as handling, free of charge to the airline.

5.38 Terms such as these are not limited to low fares airlines and indeed major carriers such as KLM and regional airlines such as Flybe are increasingly looking for deals of this nature in the UK. If Manston were to seek to realise £2.50 per passenger as suggested in George Yerrall's 2017 analysis[109], it is more likely that no airline would be willing to take the risk of serving an airport with no track record of viable operations for the airlines or the airport as is the case at Manston. Without substantial incentives, the rational approach by the airlines is instead, to focus on continued consolidation of all regional passengers onto services from the London airports where economies of scale will allow better returns. This has implications for the revenue that could be earned from passenger services which will impact on the potential viability of the development and operation of Manston Airport, as we set out further in **Section 7**.

5.39 It is important to note that our projections are highly optimistic as the maximum passenger throughput previously handled by the Airport was 200,000 in 2005 when EUJet was the principal airline operator. This airline ceased trading as its operations were fundamentally unviable. Subsequent operations by Flybe also failed as they were not viable for the airline. The KLM service to Amsterdam which operated prior to the Airport's closure in 2014 was subject to marketing support from the County Council amounting to at least £100,000 paid via the Airport[110]. In other words, there is no track record of sustainable passenger operations for the airlines at Manston without some form of public sector support. We would expect the same to be true in future if airlines are to be attracted to commence operations in the first place and deliver the longer term passenger potential that we have assessed.

Conclusions

5.40 We have set out in full our market assessment for passenger services at Manston, in part to provide the Examining Authority with an example of the type of market analysis that it would be normal practice to present in support of a planning or development consent application. The RSP case contains no such systematic presentation of the market nor reasoned analysis of how airlines are likely to respond to the market.

5.41 Proper analysis of the market confirms that Manston is, at best, only likely to attract around half of the number of passengers claimed, without analysis, by Azimuth Associates over the 20 year period of the projections. This has inevitable implications for both the scale of facilities required and the viability of the airport operation as a whole.

5.42 It is highly likely that attracting such services will require support from the public sector as well as highly discounted airport charges. Past experience would suggest that there would remain a high risk of the airlines failing to sustain the routes on a viable basis.

[109] George Yerrall Proof of Evidence Appendix 3 submitted to the Planning Inquiry into the Application by Lothian Shelf (718) Limited relating to Buildings 1, 2, 3 and 4 at Manston Airport. (2017), Table 1.
[110] http://www.airportwatch.org.uk/2013/03/farnborough-turns-away-private-flyers/.

6 JUSTIFICATION FOR THE FACILITIES PROPOSED

The RSP Application Documents fail to set out any material that justifies the extent of facilities proposed by reference to their own 'forecasts' both for the core airport infrastructure and any claimed associated development on the Northern Grass.

In this section, we have considered the infrastructure that would be required if RSP/Azimuth's air freight forecasts were correct to assist the Examining Authority. This is without prejudice to the evidence that strongly suggests that they are unattainable. We have set out the basis for estimating the required number of stands and cargo terminal infrastructure to enable RSP's forecasts to be accommodated based on the times that airlines would wish to fly, including the required night operations.

Based on proper analysis of airline operating patterns, the maximum number of stands that would be required, even allowing a buffer for resilience, would be 10. Based on global benchmarks, the scale of cargo sheds could also be substantially reduced, probably to around 1/3 of the scale indicated.

As far as the Northern Grass is concerned, the list of airport related uses provided in response to questions from the Examining Authority is no more than a list of uses that may be required at an airport without any specific reference to whether they are actually needed at Manston or, indeed, the extent to which these uses would need to be accommodated in an airside location in any event.

Based on East Midlands Airport (EMA) and its Pegasus Business Park, despite the major freight hub activity, only around 13,000m^2 of accommodation within the business park is airport related other than hotels. The remainder of the occupiers are non-airport related and therefore not relevant to RSP's asserted used for the Northern Grass. It is simply not credible that Manston could sustain more of these airport related activities than the UK's main dedicated freighter hub at EMA.

6.1 In this section, we concentrate principally on the infrastructure required to handle RSP's projected air freight forecasts and the extent to which the scale of the proposed Master Plan has been justified. This is important in the context of the DCO and justification for the acquisition of land. Whilst we present here an assessment of the infrastructure required if RSP/Azimuth's 'forecasts' were correct, this is without prejudice the clear evidenced view within the remainder of this report that they are not. We have based our assessment here on the more detailed information set out at Appendix 3.3 of the ES, notwithstanding the discrepancies between this information and that set out in the Azimuth Reports and elsewhere as highlighted in **Section 3**.

6.2 We consider separately the extent to which the core aviation infrastructure has been justified and then the use of the 'Northern Grass'.

6.3 A further consideration is the capability of the infrastructure proposed in the RSP Master Plan as this capability is material to whether the impacts of the proposed development have been correctly assessed.

Infrastructure Required to accommodate RSP's Aviation Forecasts

6.4 The Master Plan presented by RSP for the Manston Airport site is shown at **Figure 6.1**. It makes use of the full length of the runway and provides a full length parallel taxiway. The western side of the site is dedicated to freight handling activity and has 19 full Code E aircraft stands[111] for cargo flights and 4 large cargo sheds totalling 65.500m^2 for the processing of freight supported by truck loading and parking areas. The eastern side of the site shows as a new passenger terminal and apron along with a MRO hangar and apron. The existing private aircraft handling facility (FBO) and fire station site are retained. We understand that four phases of development are planned[112] as illustrated in RSP's Design and Access Statement. Notwithstanding our view as to the significantly lower potential demand that might realistically be attracted to a re-opened Manston Airport, we focus here on the overall scale of facilities required at Year 20 based on RSP's forecasts for that year and whether there is an evidenced justification for this scale of facilities in the highly unlikely event that these 'forecasts' were deliverable.

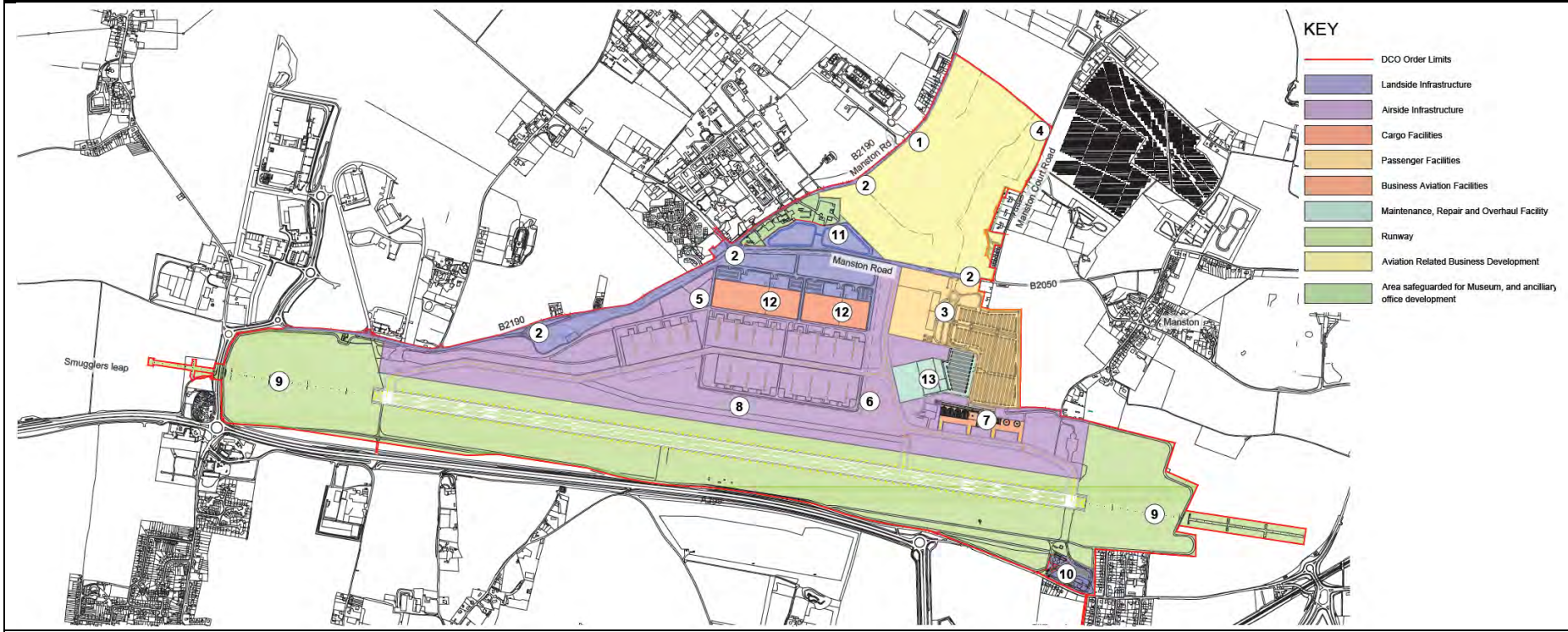
6.5 RSP projects that Manston will need to be able to handle 17,170 cargo related ATMs and that 1.4 mppa[113] will be handled by Year 20. Given that this level of throughput forms the basis of the Environmental Assessment, prima facie it would be reasonable to assume that the infrastructure shown in the Master Plan should reflect that required to handle this level of aircraft movement and passenger activity.

6.6 We note that the RSP Design and Access Statement (sections 3.01, 3.02) states that the requirement of 19 Code E stands for cargo aircraft was a given input assumption in the Client Brief, along with the requirement for 65,500m^2 of cargo facilities[114]. The Need Case for an airport development would normally be expected to set out clearly and transparently how these requirements have been derived from the demand forecasts. We would have expected the Application Documents to contain a specific justification of the scale of airside facilities proposed by way of, as a minimum:

- an indicative busy day schedule of aircraft movement by type time of day;
- a quantification of the number of aircraft stands required to handle those aircraft movements by reference to the schedule;
- the volume of cargo expected each day, the proportion expected to use the cargo facilities on-site and off-site[115], the time such cargo is expected to remain in the warehousing on-site, conversion of the volumes and dwell time to the storage space required.
- similarly for the passenger terminal requirements and number of stands required.

[111] It is unclear how the Code F aircraft shown within the fleet mix at Appendix 3.3 of RSP's ES will be accommodated.
[112] Azimuth Reports Vol III, para 5.1.2.
[113] Million passengers per annum.
[114] We note also that the DAS states that the brief was to double the size of passenger terminal facilities and add 1 passenger aircraft stand. As discussed in Section 3 of this Report, the justification for the scale of passenger terminal facilities given in the Azimuth Reports Vol III is nonsensical.
[115] Much of the cargo previously using Manston was trucked directly off-site from the aircraft side. This is common practice for some types of cargo, particularly where the integrator or forwarder has established consolidation and breakdown facilities located more centrally to the market.

Figure 6.1: RSP Masterplan – Proposed Site Layout



Source: RSP Design and Access Statement

6.7 Such information is missing from all of the key documents where it would normally be found in an airport development application, including the Planning Statement, the ES Scheme Description (Chapter 3), the Design and Access Statement and the Need Case (Azimuth Reports). As we pointed out in **Section 3**, to the extent that there is are any parameters given for the scale of facilities required in relation to the passenger terminal, these are fundamentally flawed.

6.8 Absent such a coherent explanation of how the forecasts translate into a physical requirement for infrastructure, leaving aside the validity of the forecasts themselves, the need for the facilities cannot be stated to have been justified. This is particularly relevant in the context of the required CPO which requires a compelling case to be made for the precise area of land that it is proposed be acquired.

6.9 To assist the Examining Authority, we now set out some of the key considerations in terms of the scale of facilities required relative to what is proposed in the RSP Master Plan.

Stand Requirements

6.10 As we have noted earlier, not all of the aircraft that RSP project to use Manston are Code E aircraft. Leaving aside the discrepancies between the reported aircraft mix in various parts of the Application Documents that we have highlighted in **Section 3**, 40% of aircraft movements are projected to be by smaller Code C aircraft, within which many are very small turbo-prop aircraft. It is normal practice to accommodate 2 Code C aircraft side by side within the area of 1 Code E stand. Hence, the total number of Code E stands required does not equate to the total number of aircraft requiring a stand at the same time. Furthermore, as Code C aircraft are shorter in length than Code E aircraft and, to the extent that all of the stands would not be required to accommodate Code E aircraft based on the proposed fleet mix, the length of a number of the stands could be materially shortened so reducing the overall apron area required[116]. Adoption of such principles would be consistent with ensuring efficient use of space and not over-designing the infrastructure. This would reduce the area of apron actually required to accommodate forecast demand.

Efficient Use of Stands

6.11 Taking into account that a Code E stand can accommodate more than 1 of the smaller aircraft types simultaneously and given the high proportion of such aircraft in the overall fleet mix, it is possible to assess how many aircraft a day each stand would be required to accommodate on RSP's 'forecasts' by using the phased provision of stands set out in the Design and Access Statement and the aircraft movement forecasts set out at Appendix 3.3 of the ES.

[116] The depth of a Code C stand is less than a Code E stand so the use of a Code E stand solely for 2 smaller aircraft does not use all of the stand depth as Code C aircraft are shorter nose to tail, leaving wasted space.

6.12 Using the Busy Day Multipliers set out in Appendix 3.3 to the ES, which show the extent to which the number of movements on a busy day is expected to be compared to an average day in the year, and assuming that freighter operations are typically in weekdays, i.e. only 250 days in a year, the number of peak/busy day aircraft movements by freighter aircraft that RSP claim would use Manston can be estimated. This starts at 24 (23.55) aircraft movements over a 24 hour day in Year 1, increasing to 73 (72.82) aircraft movements a day in Year 20. The number of aircraft requiring to park on a stand would be half the number of movements[117] and this can be converted to a Code E equivalent number of aircraft taking into account the projected fleet mix. Based on the 8 stands to be provided at Phase 1 rising to 19 stands by Year 20, the number of Code E equivalent aircraft that would be expected, on RSP's projections, to use each stand on a busy day would be 1.24 in Year 1 rising to 1.53 in Year 20. The number would be lower on an average day and even lower on an off-peak day. In other words, RSP are providing sufficient stand capacity for over 60% of all daily aircraft movements to be accommodated on stand at the same time. This represents a massively inefficient solution.

6.13 Based on a rational pattern of freighter aircraft operations, as set out at para. 3.44 above, we have set out an indicative stand utilisation chart based on the operating times and stand occupancy times for similar types of aircraft and types of operation (integrator, mail, general freight etc) based on equivalent operations at East Midlands. This is set out at **Appendix E**. This analysis shows an average stand occupancy time of around 3.5 hours within 24 hour period but this is affected by the assumption that, as at EMA, there may some aircraft that stay for longer than 8 hours in order to fit with EMA's integrator secondary hub role for DHL. We have assumed that there could be some similar operations at Manston in the unlikely event that it developed a hub role in order to be conservative in our assessment.

6.14 However, in practice, our analysis shows that the average stand occupancy time for freighter aircraft excluding these movements, is around 2¼ hours, consistent with the assumption of 2.5 hours set out at para. 4.5 of our November 2017 Report and as adopted by RSP[118]. On a conservative basis, our analysis shows no more than 9 Code E equivalent stands would be required to accommodate RSP's forecasts based on realistic patterns of airline operation. If the long stopping aircraft were not in the mix at Manston, as it is not realistically likely to become a secondary hub for an integrator, then it is probable that no more than 6 Code E equivalent stands would be required to meet the airline requirements.

6.15 As we have made clear in **Section 3** above, applying the proposed night movement quota would almost certainly result in a large part of RSP's freighter movement 'forecast' not operating due the effect of the restrictions on the commercial viability of the operation to the airlines, leaving aside the broader question of market viability overall. If, hypothetically, the airlines were willing to operate from Manston at commercially sub-optimal times, this would require extensive changes to the operating pattern but would still be containable within 6 to 9 Code E equivalent stands as a maximum.

6.16 RSP seek to justify the excessive provision of infrastructure by referring to the need for resilience:

[117] A movement comprising the arrival or departure of an aircraft from the runway.
[118] RSP NSIP Justification Statement, para. 22.

"The reason that the physical capability of the Proposed Development is much higher than the expected operational level is twofold. First, significant 'headroom' is required to be able to withstand operational issues that regularly arise and so is for reasons of resilience."[119]

6.17 In the first instance, allowance is typically made for a 'buffer' of time between planned operation of aircraft off of and on to a stand. This allowance is evident in the stand allocation chart at **Appendix E**[120]. This provides resilience for a normal level of operational delay. Over and above that it is normal practice in planning airport facilities to allow 10% additional stands for unforeseen events, e.g. stand outage, aircraft technical delays etc. In the case of Manston, this would require no more than 1 additional resilience stand to be available. Hence, at the very maximum, the number of stands required for 17,170 movements would be no more than 10. Furthermore, the requirement for these stands assumes that no use could be made of any of the passenger apron for cargo operations. Given the high proportion of smaller aircraft types in the fleet mix, this would also be eminently possible so reducing the required number of cargo aircraft stands further.

6.18 RSP appear to have assumed more than 100% over provision with 19 stands compared to the maximum of 9 stands operationally required. As explained earlier, this is a maximum stand requirement and, assuming that Manston could not fulfil a secondary hub role for an integrator, the required number of stands would be materially less.

Cargo Terminal Requirements

6.19 In association with proposed the 19 Code E cargo aircraft stands, the RSP Design and Access Statement Section 1.05 also states that the Brief required the provision of 65,500m^2 of cargo facilities, which is shown on the Master Plan to be 4 large cargo sheds in standard portal frame structures. Again, no justification is provided for this requirement and no explicit linkage is made to the forecasts of tonnage requiring to be processed through the facilities.

6.20 RSP themselves make reference[121], in their Masterplan Design Principles, to the objective that their development:

"'Sustains the improvements to operational efficiency for as many years as is practicable"

This appears to be something of an oxymoron given the above assessment of the efficiency with which the proposed stands would be utilised.

[119] Ibid, para. 29.
[120] We have allowed 30 mins to be cautious for freighter operations. For passenger operations a buffer of 15-20 mins would be more usual.
[121] RSP Planning Statement, para 4.14.

6.21 In the light of the claim about efficiency, we would have expected to see a calculation of the floor area of cargo facilities set out by reference to industry standards. The industry standards are set out in the IATA ADRM[122] explains that a cargo facilities size is a function of its proposed processing capability which it sets out under three categories of operation; Low Automation (mostly manual), Automated (average) and Highly Automated. The processing capability for each category is set by a tonnes per m^2 multiplier ranging from 5 to 17. It is worth noting however that some facilities across the world far exceed the top end of this range with facilities that process possibly more than 30 tonnes of cargo per m^2 of facility.

6.22 Given that Manston is intended by RSP to be a state of the art cargo handling facility, it is reasonable to assume that the tonnage per m^2 multiplier should be towards the top end of the range compared to older facilities which may not have been designed to modern standards. However, the multiplier used by RSP to size the cargo facilities appears to be of the order of 5.2 tonnes per m^2, i.e. at the bottom of the range when a more reasonable multiplier for a modern facility would be expected to be of the order of 13.5 tonnes per m^2. The cargo sheds at Manston, as with number of stands to be provided, are substantially oversized relative to the required throughput, by an order of 3 times at least.

6.23 It would appear that the scale of facilities proposed by RSP may have been based, to some extent on East Midlands Airport (EMA), which has a combined cargo shed footprint of approximately 80,000 m^2 and processed a total of over 375,000 tonnes of air cargo in 2018 at a usage multiplier of 4.7 tonnes per m^2. However, this is not a valid comparison for two principal reasons:

- ✈ Cargo handling facilities at EMA have been recently extended and are unlikely, therefore, to be operating at capacity at current tonnage levels;
- ✈ EMA operates as a hub for domestic road freight in addition to air freight given its position in the centre of the country and proximity to the M1.

For example, the Design and Access Statement for DHL's application to expand its cargo hub terminal makes clear that the primary reason for this expansion was to handle more road freight[123]. Manston is simply in the wrong place for this type of operation and, in any event, extensive road freight operations have not been assessed as part of the Transport Assessment.

6.24 Moreover, the assessment assumes that all of the cargo using aircraft at Manston needs to be handled in on-site cargo sheds. This is unlikely to be the case. Previous Manston operations were based on much of the freight being taken from the aircraft side straight off-site for distribution without entering the on-site cargo sheds, despite these sheds being underused and with ample capacity to handle all of the freight using the Airport. Given the structure of the industry and dependence on consolidated distribution centres in easily accessible locations, we would expect this pattern to continue if Manston re-opened, meaning that Manston would, in practice, require sufficient space for only a proportion of the cargo flown through the Airport to use the sheds, with the remaining freight trucked off-site in bonded trucks to be customs cleared at consolidation or distribution centres elsewhere.

[122] IATA (International Air Transport Association) Airport Development Reference Manual (ADRM) Edition 10, 2017.

[123] https://plans.nwleics.gov.uk/publicaccess/files/2928B5D0A88323F668C0208F281F5AC5/pdf/15_00319_FULM-DESIGN___ACCESS_STATEMENT_PART_1-341251.pdf, page 22.

Overall Capability of the Infrastructure

6.25 As RSP has acknowledged[124], the capability of the infrastructure applied for is at least 83,220 freighter aircraft movements a year. At a projected usage of only 17,170 freighter aircraft movements a year, this is clearly a highly inefficient development. Whilst some discrepancy would be expected between the theoretical capability of airport infrastructure and the practically achievable capacity when actual airline requirements are taken into account, the scale of the discrepancy is far in excess of what would normally be expected.

6.26 In essence, RSP plan to use only 20% of the available aircraft movement slot capability (as defined by the number of stands) that they plan to provide at Manston. As we discuss in the next section, this low utilisation rate of available capacity is highly inefficient and will inevitably result in a lack of viability of the investment. Medium sized airports in the UK typically operate at around 45 to 50% of available slot capacity when the peaks and troughs of airline demand are taken into account. Generally, operations are considered effectively unconstrained, in terms of allowing airlines the ability to operate at times at or close to when they would prefer, up to around 60% utilisation of available capacity. Beyond 70-75% utilisation, an airport is typically considered congested. Gatwick operates at well over 80% of its current capacity and Heathrow at around 99%.

6.27 By any measure, the level of utilisation proposed for Manston is below what would be reasonably expected. At 50% utilisation of available capacity, Manston as planned by RSP could accommodate almost 45,000 freighter aircraft movements a year without undue constraint on the airlines' ability to operate at commercially desirable times, leaving aside the obvious night movement constraint discussed in **Section 3**. It is important to stress that this does not mean there would be a market or need for it to handle this level of movements for the reasons outlined elsewhere in this report. Nonetheless, in order to reasonably accommodate the demand levels asserted as the need for the development and requiring to be assessed in terms of the likely significant effects[125], i.e. 17,170, this would imply a requirement for infrastructure of no more than 40% of the scale of the overall development proposed on the basis of efficient usage of the infrastructure. Any development of facilities above this level could be deemed excessive relative to efficient use of infrastructure and land in the longer term even if the 'forecasts' were correct. To the extent that the 'forecasts' are overstated, the requirement for infrastructure would come down pro-rata.

6.28 Whilst our assessment of the required number of stands takes into account realistic operating patterns which, as is made clear in our November 2017 Report[126], is necessary to assess the capacity of the infrastructure, this is not directly comparable to the theoretical capability of the infrastructure as RSP themselves accept. It remains the case that there is latent capability in the existing airport infrastructure at Manston that would be sufficient to allow it to handle the number of aircraft movements put forward by RSP as required in Year 20 without the need for RSP's development.

[124] RSP 2.3 NSIP Justification, para. 23.
[125] Ibid, para. 26.
[126] York Aviation, November 2017, paras. 4.6 and 4.7.

Passenger Facilities

6.29 As we have already noted in Section 3, the basis upon which the passenger terminal and apron facilities have been planned is unclear given the obvious errors in the design parameters set out. The proposed passenger terminal is stated in the Design and Access Statement (DAS) to have a footprint of 2,200m^2 initially, increasing to 4,500m^2 as demand requires[127]. However, there is lack of clarity as to what is actually proposed as the DAS variously refers to different footprints for the terminal. Whilst Vol 1, para. 2.01 cites the size as being 2,400m^2, the DAS also refers to there being only an extension of the existing passenger facilities rather than a new terminal (para. 1.05). The scale of the facility has not been justified even if it was clear what is proposed.

Other Aviation Facilities

6.30 RSP also cite a requirement for the Master Plan to accommodate other uses, namely General Aviation, Aircraft Recycling, and Maintenance Repair and Overhaul (MRO). As with the core air freight and passenger projections, RSP provide no assessment of the market for such activities specifically at Manston nor any justification for the scale of facilities proposed. To the extent that these occupy a material part of the site proposed to be acquired through compulsory purchase, this represents a substantial omission. As we set out at para. 2.65 of our November 2017 Report, these are highly competitive markets in terms of the number of airports seeking to attract such activities. In terms of Business Aviation, Manston is too far from London to be a major player in this market. The third opportunity, the MRO sector, other than related directly to major airline operations at larger airports, is limited in the UK as is evidenced by the recent failure of Monarch Engineering. Aircraft recycling has also been slow to develop despite active interest and operations at airports such as Newquay and Durham Tees Valley. We see very limited scope for Manston to attract these activities to any material extent so as to justify facilities beyond those that already exist on the airfield.

Northern Grass

6.31 To the north of the site, on the 'Northern Grass', a general business park development is shown. The RSP Design and Access Statement (Vol 3) shows the Northern Grass area laid out as a fairly conventional business park with a mixture of B8 warehouse units and B1 office buildings, each with their own car parking areas associated. In total, 105,100m^2 of accommodation is proposed and the DAS shows all of this being built out by Phase 2 of the development (Years 2-4). These buildings are located entirely on the landside of the B2050 and so will be unsuitable for activities integrally linked with the direct operation of the Airport.

6.32 The only justification originally given for these facilities were general statements about providing for airport related businesses "critical" to running the Airport:

"The Northern Grass area will accommodate infrastructure critical to the running of the airport including airport related businesses which do not require an airside location."[128]

[127] RSP Design and Access Statement Vol 4, para 7.17.4.
[128] RSP Planning Statement, para 3.76.

and

"A Business Park consisting of B1 and B8 units accommodating airport related businesses"[129]

6.33 These statements provided no justification for the scale of development proposed and how this relates to the operation of the Airport. RSP's Statement of Reasons simply says that this area has *"sufficient space on the Northern Grass to accommodate airport - related businesses that can be seen occupying premises in and adjacent to the vast majority of UK and European airports"*. This provides no specific justification for why any such uses would seek a site adjacent to Manston nor why they would qualify as associated development.

6.34 A further list of potential uses was set out in Appendix to the updated NSIP Justification Statement (published on 25th January 2019):

- *"radar equipment and its accompanying safeguarding clearances (these also limit the building heights across the remainder of the Northern Grass),*
- *airport management offices offering visibility over the airfield, with associated marketing suites and secure storage for equipment and materials that do not require an airside location (i.e. inside the security fence),*
- *offices and crew facilities for airlines (passenger and cargo),*
- *offices and flight planning facilities for flight schools,*
- *catering operation for passenger and business aviation flights,*
- *covered secure and valet parking operations,*
- *rental car operators – overnight garage, cleaning and office facilities,*
- *garage and offices for airside public transport providers,*
- *airport taxi company garage, cleaning and office facilities,*
- *vehicle depots and storage facilities for air cargo handlers and associated logistics*
- *companies,*
- *specialist bonded warehouses and other facilities (e.g. stables and other animal handling and veterinary facilities) that do not need to be constrained by an airside location,*
- *offices and warehousing for storage associated with MRO and aircraft recycling (including parting out) operations,*
- *office and storage facilities for outsourced contractors providing services to the airport (e.g. – maintenance, security, operations) that do not need to be airside,*
- *project offices for construction companies working on the airport, and*
- *offsite offices for Border Force, Police.*

[129] Ibid, para. 3.76.

6.35 However, this list appears to comprise not of airport-related businesses needing a landside location but of a mixture of essential airport facilities which would need to be located within the zone to the south of the B2050, e.g. airline crew offices, offices for Border Force, flight briefing facilities and facilities, garages for airside transport given that vehicles will typically not be licensed for the public highway, and those which do not appear relevant to the proposed use of Manston, e.g. airport taxi garages, covered valet parking, catering for passenger and business aviation flights. There remains a complete absence of any justification for the totality of the development proposed in this landside area save that RSP has indicated that it *"will seek to provide to the Examining Authority further examples of this type of airport-related development from other UK airports and important cargo led airports in Europe and North America."*

6.36 Taking into account the projections for Manston upon which RSP seek to base their case, the most relevant comparator, in this regard, remains EMA in the UK. East Midlands Airport has an associated landside business park, Pegasus Business Park comprised of c.52,000m^2 of accommodation. However, of this, c.16,000m^2 is comprised of 3 hotels associated with 4.9 million passengers using the Airport in 2018. Of course, hotels do not form part of the proposed used for the Northern Grass at Manston and, in any event, there is ample local supply in Ramsgate and Margate, as well as the Holiday Inn Express at Minster adjacent to the Airport, for any usage associated with the significantly lower volume of passengers projected by RSP. Of the remaining 36,000m^2 at EMA's Pegasus Business Park, many of the premises are vacant or occupied by non-airport related tenants amounting to around 23,000m^2, based on an examination on Google Earth. The proximity to the M1 and a location in the centre of the three East Midlands cities makes the site attractive to a broader range of non-aviation related business seeking proximity to the motorway. This leaves around 13,000m^{2}of accommodation occupied by what would be deemed airport-related or ancillary uses on RSP's definition.

6.37 There can be no justification for the scale of development proposed for the Northern Grass relative to the scale of operation which RSP put forward for Manston. By way of a further example, the proposed New Century Park Business Park proposed for land adjacent to Luton Airport comprises just under 60,000m^2 of accommodation, including a hotel of 6,600m^2[130]. Of the remainder, 11,100m^2 are expected to be used for airport-related business, with the remainder for general warehousing and office use. This has to be seen within the context of Luton being an airport handling over 17 million passengers a year with 1,400 freighter aircraft movements and over 22,000 tonnes of freight annually with plans for further expansion.

Conclusions on Justification for the Scale of Facilities

6.38 Without prejudice to our view that demand to use Manston is not likely to be anything like 17,170 cargo aircraft movements a year, we consider that the land required to accommodate such a number of movements would be substantially less than shown on the RSP Master Plan. The RSP Application Documents fail to set out any evidence or calculations to justify the extent of facilities proposed by reference to their own 'forecasts' both for the core airport infrastructure and any claimed associated development on the Northern Grass.

130 https://planning.luton.gov.uk/onlineapplications/files/5562977400C860F9DD68F7F243FEB90B/pdf/17_02300_EIA-Planning_Statement_Addendum_Final_V2-769078.pdf, page 31.

6.39 To assist the Examining Authority, we have set out the basis for estimating the required number of stands and cargo terminal infrastructure to enable RSP's forecasts to be accommodated based on the times that airlines would wish to fly. This does, of course, confirm the extent to which there would be dependence on night flying. Based on proper analysis of airline operating patterns, the maximum number of stands that would be required, even allowing a buffer for resilience, would be 10. Based on global benchmarks, the scale of cargo sheds could also be substantially reduced. This represents a topside estimate of the infrastructure required to handle RSP's 'forecasts' so as to provide sufficient capacity at the times that airlines would wish to fly and fully taking into account the need for resilience. This is not the same as the theoretical capability of the infrastructure, nor comparable to the capability of the existing infrastructure at the Airport if it re-opened.

6.40 As far as the Northern Grass is concerned, the list of airport related uses provided in response to questions from the Examining Authority is no more than a list of uses that may be required at an airport without any specific reference to whether they are actually needed at Manston or, indeed, the extent to which these uses would need to be accommodated in an airside location in any event. We can see no justification for the inclusion of the 'Northern Grass' within the DCO as associated development as there will be little requirement for the relocation of freight forwarding activity from adjacent to the UK's main cargo hub at Heathrow or elsewhere to Manston and any requirement could be accommodated south of the B2050. The development on the Northern Grass site appears to be speculative commercial development which, based on the precedent at East Midlands Airport – the UK's principal airport for pure freighter operations – would be expected to be largely for non-aviation related uses and, therefore, not qualify as associated development.

7 IMPLICATIONS FOR VIABILITY AND FUNDING

In the absence of any assessment of the Business Case for the development within the RSP Application Documents, in this section we have undertaken an assessment of the potential viability to assist the Examining Authority to assess the likelihood of the development plan being implemented if consented.

Our analysis shows that the RSP proposals for Manston Airport are not commercially viable even based on their optimistic traffic 'forecasts'. Fundamentally, the analysis of potential viability strongly suggests that no rational private sector investor would fund the re-opening of Manston Airport on the basis proposed by RSP. The Airport was never previously a financially viable operation and we see no reason for this to be any different in future.

When properly analysed, there is little prospect of the operation generating sufficient revenues to cover the costs for the investors nor deliver any returns on the investment for the foreseeable future. In the absence of evidence to the contrary, it is our judgement that investment would not be forthcoming to the extent necessary to even secure the re-opening of the Airport.

The upfront costs of re-opening the Airport, on the basis of a minimum initial capital spend of £145m for Phases 1 and 2, are such that EBITDA losses and a cash flow negative position are inevitable even with this lower magnitude of expenditure, i.e. replicating the position that existed historically and which, ultimately led to the Airport's closure.

Clearly, to the extent that traffic growth does not materialise as RSP envisage following the initial investment, it is clear that the financial position of the Airport would be materially worse.

Introduction

7.1 RSP's Funding Statement provides no information regarding the viability of the operation of the Airport on the scale proposed, nor sufficient information for an investor to consider whether it would be willing to contribute towards the funding of the investment. The only statement regarding the viability of the project is at para. 20 of the Funding Statement relating to capital costs estimates at para. 15:

"RiverOak has taken expert advice from RPS on the cost estimate for the project that is the subject of the application. The initial phase of the project, which will bring the airport back into use, is estimated to cost about £100 million. The cost of developing the remaining phases of the project over a 15-year period is estimated to be an additional £200 million, i.e. a total of £300 million. This cost estimate includes the cost of implementing the project, the cost of construction and the funding of the acquisition of the necessary rights over land, including any interference with rights"

"RiverOak has assessed the commercial viability of the project in the light of this information and is confident that the project will be commercially viable and will therefore be fully funded if development consent is granted"

7.2 As Altitude Aviation Advisory set out in their Addendum Report[131], this falls far short of the information that investors or lenders would require in order to consider whether or not to provide finance for the re-opening of the Airport. A full Business Plan and Business Case, accompanied by detailed financial modelling and sensitivity testing would be required. The information that would normally be expected within a Business Plan sufficient to secure investment are set out in Altitude's Addendum Report[132]. This accords with our experience in preparing such advise for investors in airports.

7.3 Although as noted in para, 2.5 above, the Planning Statement and ES assert that the Business Case and Business Plan are set out in the Azimuth Reports, these reports contain no financial analysis at all. Indeed, the Azimuth Report Vol II (para. 6.1.1) expressly refers to RSP needing to draw up a future marketing and development plan, which would necessarily need to form a crucial part of the Business Plan to inform the viability assessment. Hence, the Examining Authority has no basis for assessing the likelihood of the development being viable on an ongoing basis or whether it is likely to attract investment such that it would proceed at all. These matters are further explored in the Altitude Addendum Report.

7.4 The RSP Planning statement also claims, at para. 6.47, claims Funding Statement complies with Airports NPS requirement that development will be cost efficient for users. This would clearly not be the case if the costs of the excessive infrastructure, as discussed in the previous section, were passed onto users. A key issue that we go on to consider in this section is whether the development would be viable and at an efficient or competitive price for users even based on RSP's overstated 'forecasts'.

Assessment of the Financial Viability of Re-opening Manston Airport

7.5 In this section, we consider the financial viability of RSP's proposals for Manston Airport. The assessment of viability is crucial, as unless the operation of the Airport can be financially viable, it cannot survive in the medium to long term. If it cannot survive, it makes the investment and development superfluous and the Airport will not deliver any of the economic benefits claimed by Azimuth in Volume IV (albeit we believe these to be substantially overestimated in any case). Nor would the opening of an airport on an interim basis before failing comprise of a compelling case in the public interest for the development. A non-viable airport operation would in fact act as a drag on the economy as it would be abstracting resources that could be used more efficiently for other purposes.

7.6 Our assessment of potential viability has been undertaken using a range of information:

- we have been provided with historic and projected financial information on the operations of the Airport when it was still operating and used this information, along with the published accounts, to assess the potential EBITDA[133] performance of the Airport, taking into account the scope for material improvements in financial performance;
- we have used historic operating data provided to us along with CAA Statistics to identify key metrics for the Airport;

[131] Altitude Aviation Advisory, Analysis of the Freight Market Potential of a Reopened Manston Airport – Addendum: UK Regional Airport Financial Performance and Debt Funding Characteristics, February 2019.
[132] Ibid, Section 4, Figure 3.
[133] EBITDA – Earnings before Interest, Tax and Depreciation/Amortisation.

- we have examined the financial analysis of the RSP proposals prepared by George Yerrall on behalf of RSP[134]. This includes, in particular, assumptions around the potential capital expenditure relating to RSP's plans and its phasing. There is no more recent information on capital expenditure phasing has been brought forward by RSP so we have retained this as our basis for assessing the costs of development;
- our experience of unit revenues for aeronautical activities (including cargo handling) at UK and European airports;
- the traffic forecasts for the Airport set out by Azimuth, albeit, as described in **Sections 3**, **4** and **5**, we do not believe that these forecasts are anywhere close to being achievable.

7.7 We note that, whilst the RSP Funding Statement[135] asserts confidence in the Business Plan for the Airport, we have seen no other explanation of this than is contained in George Yerrall's 2017 analysis which we, therefore, assume represents the basis upon which this assertion is made.

7.8 We have structured this section as follows:

- Previous Financial Performance;
- Economics of Attracting Operations;
- Airport Profit & Loss;
- Covering the Costs of Investment.

Previous Financial Performance

7.9 The poor financial performance of Manston Airport previously was, ultimately, the reason for its closure. The Airport had been loss making for a considerable period of time. Our analysis is based on the Airport's report and accounts and financial information provided to us by the current owners which sets out the Airport's Profit & Loss performance for the financial years 2011/12 and 2012/13. Key parameters from this analysis are set out in **Table 7.1**.

[134] George Yerrall Proof of Evidence Appendix 3 submitted to the Planning Inquiry into the Application by Lothian Shelf (718) Limited relating to Buildings 1, 2, 3 and 4 at Manston Airport. (2017)
[135] RSP Funding Statement, para. 20.

Table 7.1: Manston Airport Historic P&L Performance (£000s)		
	FY2011/12	**FY2012/13**
Freight Related Revenue	£1,275	£1,398
Passenger Related Revenue	£105	£23
Fuel	£575	£280
Other	£700	£450
Property Revenue	£248	£155
Concession & Retail Revenue	£68	£16
Total Revenue	**£2,971**	**£2,322**
Operating Expenditure	**-£5,724**	**-£4,496**
EBITDA	**-£2,753**	**-£2,174**
Depreciation	-869	-£749
Amortisation		£105
EBIT	**-£3,622**	**-£2,818**
Interest and Similar Charges	-720	-£731
Net Profit before Tax	**-£4,342**	**-£3,549**
Source: York Aviation analysis of Report & Accounts and Stone Hill Park data.		

7.10 The extent of losses was significant at between £2.2 million and £2.8 million per annum on an EBITDA basis. It should also be recognised that these were years in which Manston's freight throughput was close to its historic peak.

7.11 There are several points to drawn out from this analysis that are important in considering Manston's future potential viability. We contrast these with the only financial information relating to the potential viability of a re-opened Manston put forward by RSP, contained in George Yerrall's Proof of Evidence to the Manston Change of Use Inquiry in 2017[136]:

- this historic analysis gives significant clues as to what revenues might be achievable in Manston's market place. The analysis suggests that Manston was achieving around £45 per tonne of cargo, which appears to include both landing fees and cargo handling revenue. We understand that these figures may have been inflated in the short term due to temporary contract that was lucrative for the Airport and that the underlying earnings potential per tonne was below this figure. £45 per tonne is approximately what George Yerrall has assumed for landing fees alone at Manston in his modelling. He then assumes a further £63 per tonne (at Year 5) for cargo handling. This does not appear credible given historic performance[137];

[136] George Yerrall Proof of Evidence Appendix 3 submitted to the Planning Inquiry into the Application by Lothian Shelf (718) Limited relating to Buildings 1, 2, 3 and 4 at Manston Airport. (2017)
[137] Ibid, Page 3.

- in 2011/12, when the Airport was handling around 35,000 passengers, it was achieving passenger related aeronautical charges income of around £3 per passenger. This, however, reflects rates being paid by Flybe and a small number of charter operations, which typically pay higher charges. George Yerrall assumes £2.50 per passenger will be attained in Year 5[138]. However, this is almost certainly too high, for the reasons outlined in **Section 5**, in the light of the significant incentive payments Ryanair, and probably the other carriers, will require to commence operations and based on our experience of the charges that they are prepared to pay at small airports;
- retail and concession revenue was around £1.95 per passenger in 2011/12. In our experience, this seems reasonable given the scale of operations and we would expect some growth in passenger income over time to reflect improved retail offer and similar as the passenger numbers grow. George Yerrall uses a £3 per passenger figure over the whole period[139]. This appears optimistic in all but the later years of the RSP's 'forecasts';
- operational expenditure (OPEX) per workload unit[140] was around £17.50 in 2011/12. This is exceptionally high and we would not expect this to be reflective of the OPEX per workload unit that could be achieved in the unlikely event that the levels of throughput projected by RSP/Azimuth were achieved. George Yerrall's analysis suggests OPEX per workload unit of around £11 in Year 5 dropping to around £8 in Year 25[141]. Our modelling based on the financial information we have reviewed and experience at other small regional airports suggests that these assumptions may actually be slightly too high.

7.12 It is clear from this analysis that there are substantial challenges in making Manston Airport commercially viable. This is partly about volumes, in that in its previous guise operations were too small to cover its fixed costs and realise economies of scale, but volumes in themselves are a significant challenge as has been set out earlier in this report. However, it is also about yields. To the extent that any figures have been produced by RSP (in George Yerrall's 2017 Proof of Evidence), they appear, in our experience, to rely on assumptions around the yields that the Airport can achieve that are substantially out of line with its historic performance, especially in the cargo market, even with significant investment in the product offered by the Airport, and taking into account the assumption that low fares airlines are expected to deliver much of the passenger throughput.

Economics of Attracting Operations

7.13 Prior to presenting our own assessment of the Airport's viability, it is important to consider the economics of attracting operations to Manston Airport as these clearly influence the assumptions made, particularly those around revenues.

[138] Ibid, Page 3.
[139] Ibid, Page 3.
[140] Workload Unit or WLU is a method of standardising combined throughput of an airport. 1 WLU comprises 1 million passengers or 100,000 tonnes of cargo per annum.
[141] Ibid, Page 4.

7.14 Fundamentally, an airport's attractiveness is about the market that it provides access to, the price at which it offers its services and the availability of other options (competition). Other factors are clearly important, such as the quality of infrastructure, but these are less important than the fundamental drivers identified. It is worth considering Manston's position in relation to these factors in both the cargo and passenger market.

7.15 In relation to cargo, Manston is not well located. It is on a peninsula at the periphery of the UK. Its local market is very limited and it is, in reality, peripheral to the London and south east markets, with relatively poor links to the motorway network. In terms of competition, although it has no competition locally, there are a wide range of airports better placed to serve the London and South East market. As we have seen above, although there may be some very minor and fleeting capacity issues in London in the very short term, capacity for additional cargo at these airports is unlikely to be an issue until well beyond 2040. This suggests that Manston's only lever for attracting traffic is price. It needs to offer its services at a significantly lower price in the market than its better geographically placed competitors (which it should be noted also have first mover advantages as well as the overwhelming advantages at Heathrow with a third runway and with its concentration of forwarding and consolidation activity).

7.16 Based on discussions with Manston's previous cargo management, we understand that this is precisely the situation that the Airport was in before it closed. Its only way to attract cargo traffic was to 'buy' it in by significantly undercutting charges and handling rates at other airports. There is no reason why this is likely to have changed given our analysis of the market set out in **Section 4**. We, therefore, believe that its historic cargo revenue performance is probably a strong guide to the future. However, we have assumed that, in the highly unlikely event that the Airport is able to establish itself in the market to the degree suggested by RSP, it may be able to begin to raise prices in the longer term.

7.17 The situation in the passenger market is essentially the same. The Airport has a very limited local market, particularly given that a significant proportion of its natural catchment area is sea. It is peripheral to the London and South East market and there are a wide range of airports better placed to serve this market. Once again, therefore, its only lever to attract traffic is price. Azimuth's passenger 'forecasts' (and indeed our own) essentially identify a low fares intensive airport, with a single hub service and some charter activity. This is likely to be an airline market heavily driven by price and potential market incentives, such as marketing support. This means that net revenues to the Airport from direct passenger charges are likely to be very low, particularly in the first few years of operation when start up incentives will undoubtedly need to be in place.

7.18 Overall, any assessment of the commercial viability of Manston Airport needs to be realistic about its situation and the yields that it is likely to be able to achieve. It should also be recognised that, however low its pricing, it still suffers from fundamental weaknesses that will mean attracting traffic will be very difficult. It remains our assessment that the Airport, if re-opened, would be unlikely to attract more movements by dedicated freighter aircraft than it previously handled and certainly no more than 2,000 such movements per year even in the long term.

Manston Airport Profit & Loss

7.19 Notwithstanding the lack of credibility of the 'forecasts' presented by RSP, York Aviation has undertaken an assessment of the commercial viability of re-opening Manston Airport based on the traffic 'forecasts' that underpin RSP's proposals (as presented in the Azimuth reports).

7.20 In the absence of any specific information provided by RSP in connection with the Application other than an estimate of £100 million to bring the Airport back into operation and a further £200 million of investment over the remaining period, we have based the phasing of the capital expenditure on that set out in George Yerrall's 2017 Proof of Evidence and taking into account the phasing information set out in RSP's Design and Access Statement. This has been adjusted to remove the development costs of the Northern Grass, as these should not be considered within an assessment of the core Airport operation's viability, albeit that they may provide a source of cross subsidy to support any losses that the Airport makes.

7.21 As noted above, RSP's Funding Statement[142] that states that the cost of Phase 1 is £100m, which we estimate comprises of:

- £25m is the minimum to reinstate the airfield to usable condition, including refurbishment works to the runway and re-equipping existing facilities such as the Control Tower and Fire Station;
- each stand, of which 8 are specified for Stage 1[143], is expected to cost £2.84m[144];
- the passenger terminal to be available for the commencement of operations in Year 2.

It is also assumed that this will need to include other costs, such as S106 payments and the cost of the other facilities, including the fuel farm, that RSP claim are necessary for the Airport to be operational[145].

7.22 The remaining costs are stated as a further £200m over 15 years, of which Stone Hill Park estimate £80m would be required to fund the B1/B8 development and associated infrastructure development on the Northern Grass. We have excluded this cost for the purpose of assessing the viability of the Airport in its own right absent any facilities providing a cross subsidy to core airport operations. On this basis, we estimate the indicative phasing of capex required to be:

- Years 0/1 £100m
- Years 3/4 £45m
- Years 9/10 £29m
- Year 13 £16m
- Year 16 £15m
- Year 19 £15m

[142] RSP Funding Statement, para. 15.
[143] RSP Design and Access Statement, Section 5.
[144] RSP Funding Statement, Appendix 3.
[145] This list of requirements is not necessarily accepted by Stone Hill Park as being strictly necessary for the Airport to re-open based on its previous operations.

7.23 To the extent that we have omitted the costs associated with any facilities essential for the operation of the Airport, we may have understated the capex costs required to secure the level of operations claimed. We have used the capital cost phasing as set out above within our assessment of the potential cash flow implications of the development to inform an assessment of the likelihood of the development attracting private sector investment. We have assumed that any costs already incurred by RSP are sunk costs and not included within our analysis.

7.24 Central to this assessment has been the development of a 'bottom up' P&L model for the Airport, based on the previous financial performance of the Airport taken from previous report and accounts, financial information about the previous operations provided to us, as well as assumptions around potential revenue metrics based on our broader market experience.

7.25 In developing this model, we have made a number of core assumptions:

- in relation to cargo revenues, we have taken the average revenues per tonne from the previous financial reports, including projections for 2014/15 as the basis for performance in the first seven years from the re-opening of the Airport, which is the point at which it is handling over 100,000 tonnes per annum. At this point, we have assumed that the airport has gained enough market power to introduce a freight handling fee of £5 per tonne in addition to the basic landing fee related revenue. This is assumed to step up by £5 every five years until Year 20 so increasing revenues. Given that the historic revenues included handling and given that we expect a substantial part of any tonnage to be trucked directly offsite, this is likely to be a highly optimistic assumption;
- passenger revenues are assumed to be £3.50 per passenger for the Hub Service, £1 per passenger for low fares airlines, net of incentive payments, and £5 per passenger for charter airlines. These are in line with our experience of what airlines are paying at UK airports currently. All are subject to discounts in the early years of operation to reflect the fact that Manston will need to offer significant incentives to airlines to offset risks in the early years;
- we have assumed fuel revenues will grow with total aircraft movements. However, we are aware that previous fuel prices at the Airport were higher than elsewhere given the relatively low volumes sold and that most customers bought fuel elsewhere. Hence, using historic fuel prices may overstate the revenue potential or the total revenues if price deters airlines from purchasing fuel;
- in relation to the 'Northern Grass', we have excluded this revenue from our analysis as it is not a core airport operation. As described above, we have also removed the capital expenditure relating to the development;
- in relation to other activities that might develop on site as proposed by RSP (such as MRO, aircraft dismantling etc.), we have not examined these propositions in detail. We have instead assumed that the Airport will receive ground rent from existing floorspace and that GA activity will reach similar levels to previously by around Year 5. We do not believe that any income from other activities is likely to be significant in the overall scheme of RSP's proposals and that, in most cases, the ability to secure these activities is little more than speculation.

7.26 The results of our analysis of the potential profitability that Manston could attain in the highly unlikely event that the RSP/Azimuth 'forecasts' of usage could be attained are set out for a number of representative years below in **Table 7.2**[146]. Our assessment suggests that Manston Airport could, on this basis, achieve total annual revenues of around £29.9 million by Year 20. Over the period, whilst the Airport is able to achieve significant economies of scale, with operating expenditure going from around £7.6 million in Year 2 to £22.9 million in Year 20, the core airport operation is only just EBITDA positive in Year 15. This performance immediately raises considerable doubts about the viability of RSP's proposals given the high levels of capital expenditure required to bring the Airport into full operation.

Table 7.2: Manston Airport Profit & Loss Assessment (£ million)

	Year 2	Year 5	Year 10	Year 15	Year 20
Aviation Revenue	**£4.5**	**£9.9**	**£13.5**	**£18.0**	**£25.6**
of which Freight Landing Fees	*£4.0*	*£7.3*	*£8.9*	*£11.3*	*£14.3*
of which Freight Handling	*£0.0*	*£0.0*	*£1.1*	*£2.7*	*£6.8*
of which Passenger Related	*£0.0*	*£0.9*	*£1.4*	*£1.7*	*£2.0*
of which Fuel	*£0.2*	*£0.6*	*£0.7*	*£0.8*	*£0.9*
of which Other	*£0.3*	*£1.1*	*£1.3*	*£1.4*	*£1.6*
Property Revenue Existing Portfolio	£0.2	£0.2	£0.2	£0.2	£0.2
Concession & Retail Revenue	£0.0	£1.5	£2.3	£3.1	£4.1
Total Revenues	**£4.8**	**£11.6**	**£16.0**	**£21.3**	**£29.9**
Operating Expenditure	**£7.6**	**£14.9**	**£16.6**	**£20.6**	**£22.9**
EBITDA (Airport Operations)	**-£2.8**	**-£3.3**	**-£0.6**	**£0.8**	**£7.0**
EBITDA Margin	**-58%**	**-28%**	**-0%**	**4%**	**23%**

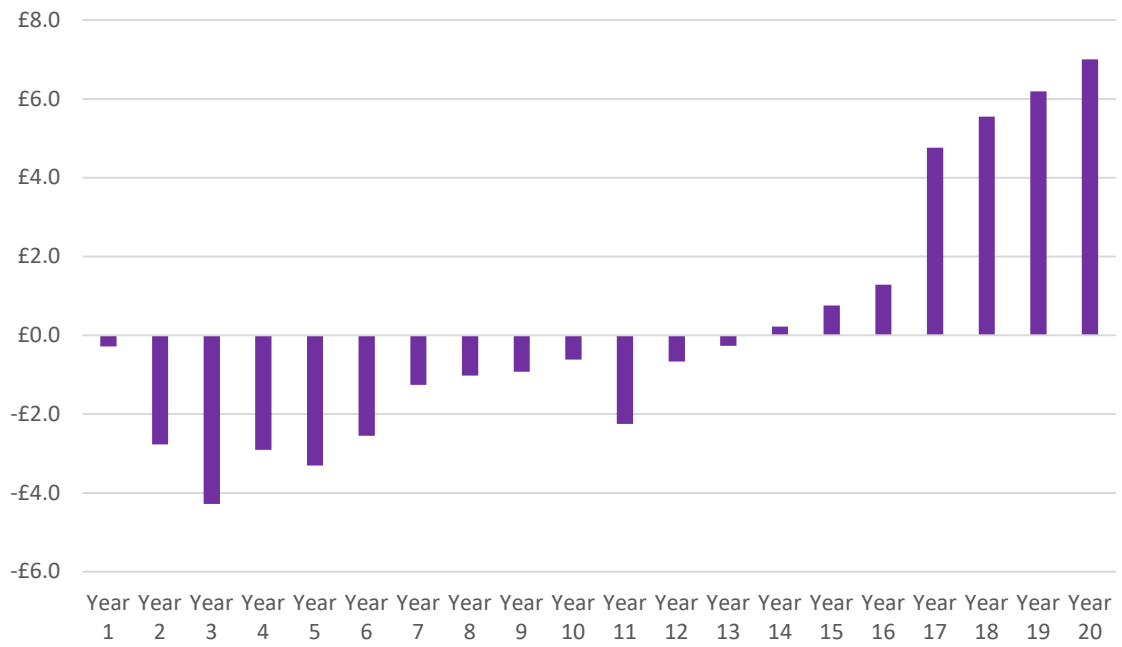
Source: York Aviation

7.27 It is important to note that, if we have been over optimistic in terms of our assumptions particularly in relation to the ability of Manston to earn cargo handling income in addition to landing fee related income, or in relation to the ability to achieve positive airport charges income from passenger flights, then the EBITDA will have been overstated. In particular, we have taken no specific account of the factors identified by Azimuth in relation to the costs of attracting traffic to Manston (as set out at para. 3.27 above) nor, it would appear did George Yerrall in his 2017 assessment. These would need to be reflected as additional costs or as revenue foregone. By way of illustration, stripping out cargo handling revenues would result in a net EBITDA of £0.2m even by Year 20, with greater losses in the early years. This highlights the extreme fragility of the expected financial performance of Manston even if RSP's highly optimistic throughput forecasts could be attained. There are a significant number of downside risks to the achievement of even this level of income and returns.

[146] We have assessed profitability at EBITDA (Earnings before Interest, Tax and Depreciation) level as this is a key metric used by investors and funders to consider the attractiveness of an airport investment. This, by definition, excludes interest charges on any debt, depreciation charges and tax payments.

7.28 The EBITDA performance over time is illustrated in **Figure 7.1**. The core airport operation is EBITDA negative for the great majority of the forecast period even assuming RSP/Azimuth's forecasts are delivered in full. It is important to note, as emphasised above, that the ability for the operation to deliver any profits, even in Year 14 and beyond, depends on a series of highly optimistic assumptions that may not be realisable in the market so we would emphasise that what is presented here is an upper bound estimate to illustrate the commercial risks that the investment would face even on a highly optimistic set of assumptions, i.e. this is very much a 'high case' position and not representative of the downside risks that an investor would certainly need to factor in before deciding if and how much it was willing to invest. These downside risks would become very apparent in any due diligence process ahead of investment and an investment case would, in all probability, have to be based on little or no prospect of operating profits even by Year 20.

Figure 7.1: EBITDA of Manston Airport by Year Scenario (£ million)



Source: York Aviation

7.29 This performance is in stark contrast to the position put forward by George Yerrall[147] on behalf of RSP in 2017, which remains the only information on the potential viability of the scheme put forward by RSP. That assessment sees the Airport EBITDA positive from Year 2 and achieving an EBITDA of £35.5 million by Year 20. Ultimately, we believe that this is driven by the unrealistic assumptions around revenues adopted, particularly in relation to revenues from cargo handling. If, as we believe strongly, the demand projections for the Airport are unrealistic, any assessment of profitability will be substantially overstated, i.e. the potential for viable operations to be attained will be significantly worse.

[147] George Yerrall Appeal Proof of Evidence Appendix 3. (2017), Page 9.

7.30 It should be noted that the financial performance that we project is not out of line with what is seen across the UK Regional Airport sector, as set out in Altitude's Addendum Report[148]. Indeed, based on 3.1m Workload Units identified in the Altitude Report, the EBITDA per Workload Unit of £2.25 would place Manston at the upper end of the range of performance, exceeded only by Humberside, Norwich and Southampton – all airports with high dependence on more lucrative business related travel and with strong markets serving the north sea oil and gas industry. This only serves to emphasise the optimism within the assumptions that we have used.

Covering the Costs of Investment

7.31 Below, we have used our analysis of Manston Airport's ability to generate cash in terms of EBITDA to consider whether it could support the costs of RSP's investment at the Airport and provide a commercially viable return. It is important here to note that George Yerrall himself, even though asserting that Manston would have pricing power, recognised that EBITDA may not be the most relevant measure when it comes to considering an investment with a high dependence on capital expenditure up front.

"Similarly profit margins mean nothing in isolation. The quid pro quo for profit margin in the Airport business is Capital Expenditure ("CapEx"). Whilst the market "Wisdom" around an airport EBITDA margin refer to an excess of 40%, this must be qualified by understanding the CapEx requirements, costs and most importantly the CapEx cycle. Passenger Airports require less CapEx at the outset, but thereafter require similar amounts deployed at more frequent intervals than their Cargo relatives"[149]

7.32 George Yerrall goes on[150] to make the point that:

"Net Income is a better guide than EBITDA to the profitability and inherent value of the Cargo business as it includes the normalisation of CapEx through our true depreciation curves."

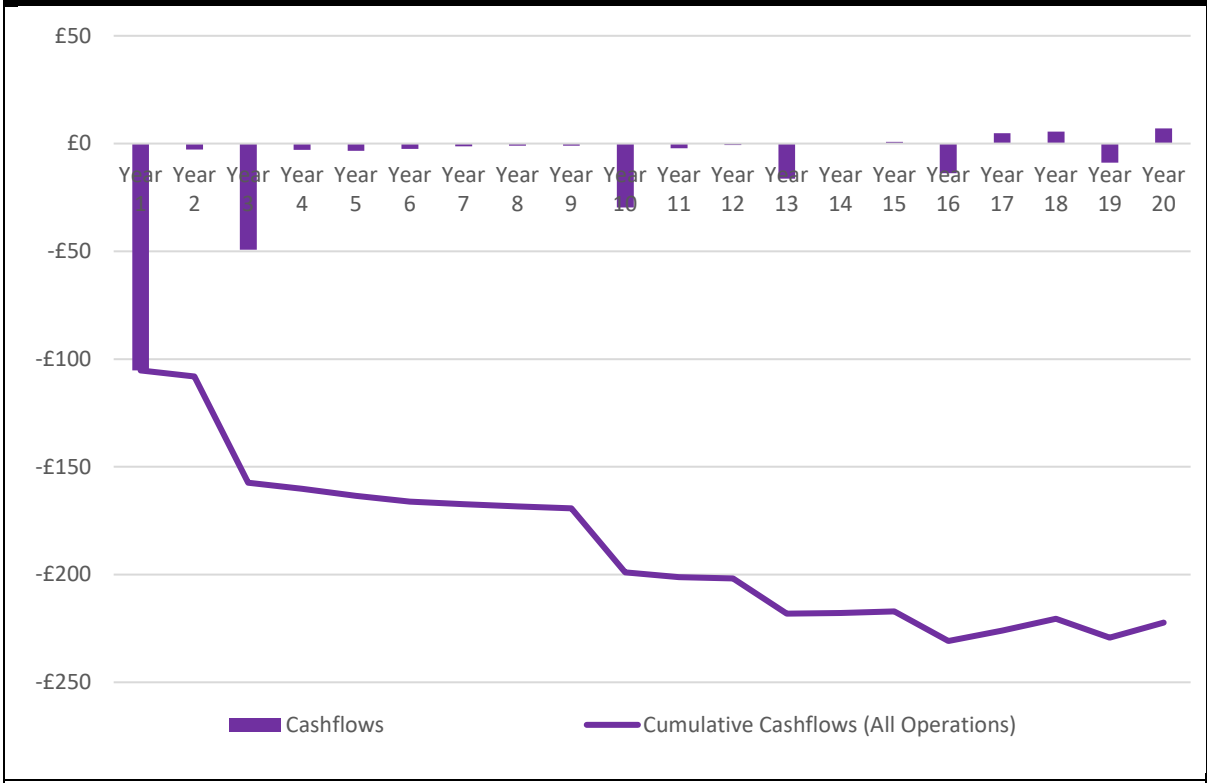
We do not have sufficient information regarding the specific assets and their costs to prepare depreciation curves for RSP's proposed investment in Manston so, for illustrative purposes, we have set out a cash flow analysis. The results are in stark contrast to the picture painted by George Yerrall as set out in his Figure 10.

7.33 In undertaking our analysis of the cash flow implications, we have used the RSP capital expenditure programme set out in George Yerrall's analysis[151] as a basis, as set out in para. 7.22 above, adjusted for capital expenditure relating to the Northern Grass. It should be noted that we have not made any explicit allowance for the substantial land acquisition or blight costs in relation to the re-opening of the Airport which are likely to become payable, in the main, before development could commence.

[148] Altitude Aviation Advisory, Analysis of the Freight Market Potential of a Reopened Manston Airport – Addendum: UK Regional Airport Financial Performance and Debt Funding Characteristics, February 2019, Section 4.
[149] George Yerrall Appeal Proof of Evidence Appendix 3. (2017), para. 5.
[150] Ibid, para 27.
[151] Ibid, Page 5.

7.34 **Figure 7.2** shows the yearly cashflows and cumulative cashflows for Manston Airport over the 20 year forecast period. The results of this analysis suggest very strongly that RSP's proposals, even on their own highly optimistic traffic forecasts and with revenue assumptions that may not be capable of realisation in the market, are nowhere close to being commercially viable. The cumulative cash position is still substantially negative in Year 20 (-£222 million). An investor would have to bear a negative and deteriorating cash position for well over 20 years even on our most optimistic set of assumptions. This would simply not be rational behaviour for a commercial investor.

Figure 7.2: Scenario 1: RSP Proposals Cumulative Cashflows for Manston Airport (£ million)



Source: York Aviation

7.35 The financial performance is in fact so poor that it is not actually possible to calculate an Internal Rate of Return (IRR). This is further evidence that no rational commercial investor would fund RSP's plans. By way of reference, it is worth noting that the allowable return at Heathrow set by the CAA is currently 5.35%. This is the rate of return allowed for one of the most stable, established and low risk airport assets in the world. We would typically expect an IRR of between 7% and 9% for an established UK regional airport. For a high risk investment such as re-opening a previously failed small regional airport, we would expect rates of return substantially in excess of that.

7.36 For Manston to offer a rate of return that would be commercially attractive to an investor or funder, perhaps around 15%, average aeronautical charges at the airport would need to be 275% higher throughout the forecast period than we have assumed. This would mean average aeronautical charges per workload unit of around £18. For comparison, aeronautical charges per workload unit at East Midlands were around £2.80 and around £5.10 at Stansted in the last available year. In other words, charges would have to be so high that it would render completely uncompetitive and it would become even more certain that RSP's traffic 'forecasts'. could not be achieved.

7.37 Further considerations relating to the fundability of the proposed development are set out in full in Altitude's Addendum Report.

Conclusions

7.38 In the absence of any assessment of the Business Case for the development within the RSP Application Documents, we have undertaken an assessment of the potential viability to assist the Examining Authority to assess the likelihood of the development plan being implemented if consented.

7.39 Our analysis shows that the RSP proposals for Manston Airport are not commercially viable even based on their unreasonably optimistic traffic 'forecasts' and taking a number of optimistic revenue assumptions. Fundamentally, the analysis of potential viability strongly suggests that no rational private sector investor would fund the re-opening of Manston Airport on the basis proposed by RSP. The Airport was never previously a financially viable operation and we see no reason for this to be any different in future. When properly analysed, there is little prospect of the operation generating sufficient revenues to cover the costs for the investors nor deliver any returns on the investment for the foreseeable future. In the absence of evidence to the contrary, it is our judgement that investment would not be forthcoming to the extent necessary to even secure the re-opening of the Airport.

7.40 Even if the Airport re-opened on the basis of a minimum initial capital spend (£145m for Phases 1 and 2), this would inevitably limit the operation to a scale where ongoing EBITDA losses were inevitable, i.e. replicating the position that existed historically and which, ultimately led to the Airport's closure.

7.41 Clearly, to the extent that traffic growth does not materialise as RSP envisage following the initial investment, it is clear that the financial position of the Airport would be materially worse.

8 CONCLUSIONS

8.1 This report updates and adds to the analysis of the flaws in RSP's Need Case, as set out principally in the Azimuth Reports, as presented in our November 2017 Report. In practice, the Azimuth Reports are little changed and, to the extent that new material has been added, do not address or rectify the substantial errors that we identified in the analysis contained therein.

8.2 Our November 2017 Report made clear that:

- RSP's analysis of our earlier work for the Freight Transport Association (FTA) and Transport for London (TfL) was flawed and this work did not support RSP's conclusion that there would be a substantive or sustainable role for Manston in the UK air freight industry.
- The remaining evidence relied on by RPS to justify its Need Case is almost entirely based on circumstantial evidence related to the shortage of airport capacity principally for passenger flights, that can also carry bellyhold cargo, in the circumstances where no additional capacity is provided at any of the London Airport. This is simply irrelevant, particularly given that it is Government policy to promote the development of a third runway at Heathrow.
- The analysis presented by Azimuth to support RSP's case shows a lack of understanding of the economics of the air freight market, especially in failing to recognise the economic drivers that prioritise the use of bellyhold capacity over dedicated freighters.
- Manston's past operation was economically inefficient due to the inherent lack of viability. Reopening the Airport has no realistic prospect of success as there are more economically efficient alternatives available for any freight displaced from Heathrow in the short term, pending the development of a third runway.
- Azimuth's 'forecasts' rely strongly on the attraction of an integrator but Manston is too peripheral for integrator operations serving the UK.
- Azimuth's interview survey, used as further justification for RSP's freight movement forecasts, relies on a small list of mainly local companies with something of a vested interest in seeing Manston re-opened and does not provide a basis for the specific aircraft movement forecasts upon which the case relies, not least as it is not possible to relate the proposed services to be operated with the responses by the interviewees. There is simply no explanation for, or justification for, the services postulated by Azimuth. There is a total lack of credibility in the approach adopted.
- To illustrate this lack of credibility of the forecasts, in Year 2 (the first operational year), a cargo throughput of nearly 100,000 tonnes is forecast by Azimuth. This would make Manston the 5th largest freight airport in the UK in its first year after re-opening. It would make Manston the 3rd busiest airport in the UK in terms of tonnage carried on dedicated freighter aircraft. This is simply not a credible proposition.
- Proper analysis of the UK air freight market showed that there is plenty of freighter capacity at Stansted and East Midlands Airport to accommodate any growth required in dedicated freighter operations such that there will be no shortage of capacity across the UK and no role for Manston in accommodating traffic spilled from other airports. These airports are better located relative to the market and the key locations for distribution within the UK.
- Our estimate was that Manston would, at best, be able to attain 2,000 annual air cargo aircraft movements by 2040 and it is equally plausible that it might not achieve more than 750 such movements annually as operated when it was previously open.

- Our initial assessment of the passenger market was that the throughput might, at best, be around half of that projected by RSP and, hence, given the dependence on passenger related income for the financial viability of airport operations, this would impact substantially on the viability of the proposal.
- Our assessment was that the existing infrastructure at Manston Airport, if made good, would be capable of handling 21,000 annual air cargo aircraft movements. The actual usage of that capability would depend on the pattern of operation and how the infrastructure was used on a day by day basis.
- We also gave provisional consideration to the land required to accommodate future forecast demand. Without prejudice to our view that demand to use Manston is not likely to be anything like 17,171 cargo aircraft movements a year, we considered that the land required would be substantially less than shown on the RSP Master Plan and that the proposed land take is excessive and without justification in terms of the compulsory acquisition of the land, particularly given the inherent implausibility of the demand forecasts upon which the assessment was made.
- We could see no justification for the inclusion of the 'Northern Grass' area within the DCO on the basis of it being for associated development. There will be little requirement for or likelihood of the relocation of freight forwarding activity from adjacent to the UK's main cargo hub at Heathrow or elsewhere to Manston.
- Azimuth made errors in the assessment of the socio-economic implications of the proposed development, particularly in terms of the use of inappropriate multipliers, the assessment of impacts a national scale, rather than the local scale in East Kent as implied by Azimuth, and should have taken displacement of activity from other UK airports fully into account, reducing the impacts well below those stated.

8.3 Our overall assessment in November 2017 was that RSP's case lacked any real credibility. Nothing has fundamentally changed and to the extent that there have been changes, for example in the formal designation of the Airports NPS and the progress towards the development of a third runway at Heathrow, the need for Manston is even less than we previously assessed.

8.4 In updating of our previous work, we have taken particular cognisance of the requirement for RSP to present a compelling case in the public interest to justify the compulsory acquisition of land. This goes beyond the theoretical test of the capability of the infrastructure proposed but must, necessarily, consider the likelihood and extent of the level of usage of that infrastructure and the extent to which there would be wider public benefit from the land being used in that way.

Aviation Policy

8.5 The whole of the RSP need case for the development of an air freight hub at Manston is based on the Azimuth Reports. A flawed interpretation of Aviation Policy is still set out in Azimuth's Volume I, which seeks to infer support for the development of a mainly freight airport at Manston based on the evidence before the Airports Commission of the potential damage to the UK economy if no additional hub airport capacity for passengers was provided at Heathrow (or a reasonable alternative to Heathrow). This was never a relevant basis for considering whether there was a case for re-opening Manston as a primarily air freight airport, as the vast majority of the economic benefit cited relates specifically to the benefits to passengers in the main using global passenger services from an expanded hub Heathrow – a need that Manston patently cannot and does not claim that it will be able to meet.

8.6 The clear decision by Government in favour of the building of an additional runway at Heathrow will transform capacity available to the air freight sector. There can be no doubt that the use by RSP of pre-NPS evidence on the need to address the shortage of airport capacity overall to serve London is misleading and incorrect. Properly interpreted, Government Aviation Policy makes clear that expansion of capacity at Heathrow, allowing more global air connections providing additional bellyhold capacity and scope, if required, for more dedicated freighter movements at Heathrow, is the identified means of meeting future air freight demand, along with the continued role for East Midlands and Stansted as air freight gateways with ample spare capacity.

Errors and Inconsistencies of Analysis

8.7 In this report, we have identified further inconsistencies and mathematical errors in the 'forecasts' presented by Azimuth and others in the RSP team to justify the proposed development at Manston. Whilst individually some of these errors and discrepancies might seem small in scale and impact, others are highly significant and serve to undermine the credibility of the whole approach outlined in the Azimuth Reports and throughout RSP's Application Documents. The combined implications are significant in terms of whether a) the application should actually have qualified as an NSIP; b) in terms of the level of demand that Manston might attract if it re-opened as an Airport and the viability of the proposed operation; and c) whether the environmental assessments undertaken are robust.

8.8 The most significant of these errors relate to:

- the lack of any soundly based forecasts – instead of forecasts based on an understanding of markets, costs and real potential, RSP's case is founded on a flawed list of airlines that it claims will definitely operate at Manston and then grow their business at Manston. Several of these airlines do not operate air freight services at all and others would be unlikely to operate to Manston for the reasons we set out. Hence, the list presented no more than a 'guesstimate', without any supporting evidence. These are not 'forecasts' in the sense that is normally recognised in the industry;

- ✈ the lack of realism in the fleet mix overall and the assumed pattern of day/night time operations, particularly in relation to the implications for the prospect of integrator and mail operations being attracted to use Manston at all. This further undermines the credibility of the short term 'forecasts' as, contrary to what RSP claim, airlines would not be able to operate to Manston on an unconstrained basis to meet their own commercial requirements but would be so constrained during the night period as to make the majority of the operations claimed by Azimuth unviable for the airlines;
- ✈ the overstatement of longer term demand projections through the use of unjustified growth rates due to mathematical errors made by Azimuth.

8.9 These errors and inconsistencies render the so-called 'forecasts' completely unreliable as a basis for assessing the extent and nature of any usage of Manston in the event that the Airport re-opens.

Understanding the Air Freight Market

8.10 Examination of market trends and the structure of the air freight market make clear that there is no role for Manston, other than possibly as a niche cargo operation, as with its historic operation. The trend in favour of bellyhold for the carriage of general air freight is clear. This freight forwarding sector is heavily concentrated around Heathrow for this very reason and the associated consolidation activity essential drives the choice of airport based on the most economical freight rates available for any consignment. This is highly unlikely to be a dedicated freighter option from an airport remotely located in East Kent.

8.11 R3 will provide for a doubling of air freight capacity at Heathrow, mainly in bellyholds of passenger aircraft but also scope for dedicated freighters to the extent that these are required to feed the hub at Heathrow. Indeed, the ability to provide a step change in capacity for air freight was one of the principal reasons why the Government chose the specific proposal for the development of a new runway. Freight facilities at Heathrow are actively being modernised and extended in anticipation of that growth of cargo activity there.

8.12 The integrators are already well established at East Midlands Airport in particular as well as using Heathrow and Stansted to serve the main markets in England. Manston is too far from the distribution centres along the M1/M6 axis to function as an integrator base, leaving aside that the proposed night movement restrictions would render any such operation unviable for the airline/integrator.

8.13 This leaves niche/specialist cargo operations as the only possible market for Manston. This would be consistent with the types of cargo that Manston used to handle. Ultimately, this is a very small market and unlikely to result in Manston handling more freighter movements than it did historically. This has profound implications for the Need Case as a whole, not least as it seems likely that any freighter activity would in fact need to be displaced from elsewhere through price incentives as there are few, if any, natural market drivers which would make Manston the first choice location and given the switching costs identified by Azimuth.

Air Passenger Forecasts

8.14 As with the asserted air freight 'forecasts', Azimuth provide no quantified analysis of the market to justify the passenger forecasts. The passenger element of the forecasts will be a vital element in considering the potential viability of the Airport as, generally, passenger operations offer better margins for an airport than cargo operations given the ability to earn revenue from shops and car parking. Furthermore, much of the asserted economic benefit from the Manston operation stems from passenger flights rather than cargo operations.

8.15 To assist the Examining Authority, we have set out in full our market assessment for passenger services at Manston. We have undertaken this analysis on the same basis as we would for any UK regional airport and presented it in a form that would be normal practice at an airport planning inquiry. Such analysis is completely missing from the Azimuth Reports.

8.16 Proper analysis of the market confirms that Manston is, at best, only likely to attract around half of the number of passengers claimed, without analysis, by Azimuth Associates of the 20 year period of the projections. This has inevitable implications for both the scale of facilities required and the viability of the airport operation as a whole. It is highly likely that attracting such services will require support from the public sector as well as highly discounted airport charges. Past experience would suggest that there would remain a high risk of the airlines failing to sustain the routes on a viable basis.

Infrastructure Requirements

8.17 Without prejudice to our view that demand to use Manston is not likely to be anything like 17,170 cargo aircraft movements a year, our analysis shows that the land required to accommodate such a number of movements would be substantially less than shown on the RSP Master Plan. The RSP Application Documents fail to set out any material that justifies the extent of facilities proposed by reference to their own 'forecasts' both for the core airport infrastructure and any claimed associated development on the Northern Grass.

8.18 To assist the Examining Authority, we have set out the basis for estimating the required number of stands and cargo terminal infrastructure to enable RSP's 'forecasts' to be accommodated based on the times that airlines would wish to fly. This does, of course, confirm the extent to which there would be dependence on night flying. Based on proper analysis of airline operating patterns, the maximum number of Code E equivalent stands that would be required, even allowing a buffer for resilience, would be 10. This is an assessment of the required capacity to handle flights at the times airlines would wish to operate which is not the same as the assessment of the theoretical capability of the existing or planned infrastructure at Manston.

8.19 Based on global benchmarks, the scale of cargo sheds could also be substantially reduced to may be no more than 1/3 of the size proposed by RSP. Overall, even in the highly unlikely event that RSP/Azimuth's 'forecasts' were realised, the overall scale of development required would be no more than of the order of 40% of that proposed in RSP's Master Plan.

8.20 As far as the Northern Grass is concerned, the list of airport related uses provided recently by RSP is no more than a list of uses that may be required at an airport without any specific reference to whether they are actually needed at Manston or, indeed, the extent to which these uses would need to be accommodated in an airside location in any event. We can see no justification for the inclusion of the 'Northern Grass' within the DCO as associated development as there will be little requirement for the relocation of freight forwarding activity from adjacent to the UK's main cargo hub at Heathrow or elsewhere to Manston and any requirement could be accommodated south of the B2050.

8.21 The development on the Northern Grass site appears to be speculative commercial development. The total extent of landside airport related uses at East Midlands Airport, other than hotels which do not feature as part of Manston's plans, is 13,000m^2, or 13% of the scale of development proposed for the Northern Grass by RSP. Hence, based on the precedent at East Midlands Airport – the UK's principal airport for pure freighter operations – the extent of the proposed development on the Northern Grass means that it would be expected to be largely for non-aviation related uses unconnected to the operation of the Airport.

Viability

8.22 In the absence of any assessment of the Business Case for the development within the RSP Application Documents, we have undertaken an assessment of the potential viability to assist the Examining Authority to assess the likelihood of the development plan being implemented if consented. Our assessment is inherently optimistic and represents a 'high case' not the most likely outcome.

8.23 Our analysis shows that the RSP proposals for Manston Airport are not commercially viable even based on their unreasonably optimistic traffic 'forecasts'. Fundamentally, the analysis of potential viability strongly suggests that no rational private sector investor would fund the re-opening of Manston Airport on the basis proposed by RSP as the development is likely to deliver negative returns to investment for the foreseeable future.

8.24 The Airport was never previously a financially viable operation and we see no reason for this to be any different in future. When properly analysed, there is little prospect of the operation generating sufficient revenues to cover the costs for the investors nor deliver any returns on the investment for the foreseeable future. In the absence of evidence to the contrary, it is our judgement that investment would not be forthcoming to the extent necessary to even secure the re-opening of the Airport.

8.25 Clearly, to the extent that traffic growth does not materialise as RSP envisage following the initial investment, it is clear that the financial position of the Airport would be materially worse. It is our assessment that, even if initial investment was forthcoming, which we doubt, it is inevitable that the Airport would close again in the medium term due to lack of inherent viability.

Overall Conclusion

8.26 Fundamentally, the whole Need Case for the development of Manston as an air freight hub is infected with flaws and errors of understanding such that the so-called 'forecasts' of air freight and passenger demand have no credibility at all. Even if they were credible, the scale of development proposed is unjustified and excessive. The development and operation of the Airport would simply be unviable and incapable of attracting competent investors.

APPENDIX A: CV FOR LOUISE CONGDON

APPENDIX B: YORK AVIATION NOVEMBER 2017 REPORT



York Aviation

STONE HILL PARK LIMITED

SUMMARY REPORT ANALYSING USE OF YORK AVIATION MATERIAL BY RIVEROAK STRATEGIC PARTNERS LIMITED AND ASSESSMENT OF CAPABILITY OF MANSTON AIRPORT

NOVEMBER 2017



York Aviation

Originated by: Louise Congdon/James Brass/Niall Gunn/Richard Connelly

Dated: 10th November 2017

Reviewed by: Richard Kaberry

Dated: 13th November 2017

STONE HILL PARK LIMITED

SUMMARY REPORT ANALYSING USE OF YORK AVIATION MATERIAL BY RIVEROAK STRATEGIC PARTNERS LIMITED AND ASSESSMENT OF CAPABILITY OF MANSTON AIRPORT

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EXECUTIVE SUMMARY

1. York Aviation was appointed by Stone Hill Park Limited (SHP) in September 2017 to review the evidence presented by RiverOak Strategic Partners Limited (RSP) in connection with RSP's prospective application for a Development Consent Order (DCO) for the redevelopment and re-opening of Manston Airport as a hub for international air freight services, which also offers passenger, executive travel and aircraft engineering services.

2. We were the authors of two specific reports upon which RSP seek to rely in making their case, namely a report for the Freight Transport Association (FTA) and Transport for London (TfL) in 2015 and a note on Freight Connectivity for TfL in 2013. The first of these documents was used by RSP in its public consultation and this may have led respondents to believe that we were supporting the re-opening of Manston, which is not true and, as we go onto explain in this report, our analysis in these documents for the FTA and TfL does not support RSP's conclusion that there would be a substantive or sustainable role for Manston in the UK air freight industry.

3. The RSP case is principally based on circumstantial evidence presented in the Volumes I to IV of *Manston – A Regional and National Asset* prepared by Dr Sally Dixon of Azimuth Associates (June 2017 consultation version). Much of the material upon which Azimuth seek to rely as the basis of RSP's case relates to the economic costs to the UK if additional passenger hub capacity is not provided in the South East of England by 2050. This is not relevant to the specific question as to whether there would be sufficient demand for pure freighter movements to be operated to/from Manston in the foreseeable future or by their assessment year 2040.

4. The analysis presented by Azimuth shows a lack of understanding of the economics of the air freight market. This leads to a misinterpretation of our work, upon which Azimuth seek to rely to support RSP's case. Just because there could be excess air freight demand in 2050, compared to the bellyhold capacity available in the absence of further runway capacity at the UK's main hub, it does not follow that displaced bellyhold freight will seek a more expensive pure freighter service from a relatively nearby airport over the use of available bellyhold capacity from a more distant airport which can be provided at a lower cost to the shipper with only a marginal penalty in terms of the overall shipment time.

5. Fundamentally, Manston's past operation was economically inefficient due to the inherent lack of viability. Hence, reopening the Airport, in the face of a very limited niche market, has the potential to damage the productivity of the UK aviation sector overall, particularly, as we have demonstrated in our own assessment of cargo demand for Manston in Section 3 of this report, that there are more economically efficient alternatives available for any freight displaced due to specific capacity constraints at Heathrow both now and in the future.

6. Manston is too peripheral for integrator operations serving the UK. Integrators have a strong preference for locations more centrally located in the UK with good road access to all of the major markets. The availability of land for warehouses, for example as suggested in terms of the use of the 'Northern Grasslands' part of the overall Airport site, is far less important than a location central to the market and the availability of good road access, neither of which are characteristics of Manston. It is simply in the wrong place to serve the market being located at the far south east at the end of a peninsular, away from the main centres of population and distribution in the UK.

7. In the absence of hard market evidence of the need for Manston Airport, Azimuth undertook an interview survey to supplement RSP's case and to inform the forecasts. However, the list of interviewees was small, dominated by mainly local companies with something of a vested interest in seeing Manston re-opened. Even so, if anything, the views of those interviewed by Azimuth suggest that there would, at best, be a limited role for Manston. The one airline interviewed made clear that *"success at Manston depended upon identifying a niche market and becoming known for excellence. In particular, suggestions included a perishables centre, handling of live animals, easy access for charter flights, and handling cargo that is not necessarily straightforward"*. The scale of this opportunity was never quantified by Azimuth. It is clear, however, that the realistic expectation for Manston is for a small niche operation rather than as a general 'overspill' cargo airport for London.

8. The outputs from these interviews are then used by Azimuth as a basis for postulating a number of cargo aircraft movements that might operate at Manston. However, it is not possible to relate the proposed services to be operated with the responses by the interviewees. There is simply no explanation for, or justification for, the services postulated by Azimuth. At the very least, there is a lack of transparency in the approach adopted.

9. In our view, the Azimuth cargo movement forecasts simply lack credibility. To illustrate this lack of credibility of the forecasts, in Year 2 (the first operational year), a cargo throughput of nearly 100,000 tonnes is forecast by Azimuth. This would make Manston the 5th largest freight airport in the UK in its first year after re-opening (compared to 2016 actual throughput at the other airports). This would place it close to the scale of freight operations at Manchester Airport, which includes a substantial amount of bellyhold freight. It would make Manston the 3rd busiest airport in the UK in terms of tonnage carried on dedicated freighter aircraft. This is simply not a credible proposition. This lack of credibility is important in reaching any decision under section 23 of the Planning Act 2008 (as amended).

10. We have updated and further developed our analysis of the UK air freight market from that previously undertaken in 2013 and 2015 for TfL and for the FTA and TfL (RSP seek to rely on our 2013 and 2015 work as corroboration of their own cargo movement forecasts). When properly interpreted, our forecasts of air freight demand and capacity across the UK as a whole, taking the role of bellyhold fully into account, show that, to the extent that there is any need for additional pure freighter movements, there is plenty of freighter capacity at Stansted and East Midlands to accommodate any growth. These airports are better located relative to the market and the key locations for distribution within the UK. Overall, we conclude from this analysis that there will be no shortage of freighter capacity in the UK in the period up 2040 (RSP's assessment end date) and that overspill from other airports would not provide a rationale for re-opening Manston.

11. Taking the most optimistic basis for assessing its potential role, we have estimated that Manston might be able to achieve at most 4,470 annual air transport movements by cargo aircraft by 2040, but this is highly unlikely given its location and the clear market trend away from the use of dedicated freighter aircraft. Our more likely projection is that it might attain 2,000 annual air cargo aircraft movements by 2040 and it is equally plausible that it might not achieve more than 750 such movements annually. These are all far below Azimuth's projection, upon which RSP rely, of 17,171 annual cargo aircraft movements.

12. Our initial assessment of the passenger market is that the throughput might, at best, be around half of that projected by RSP and, hence, given the dependence on passenger related income for the financial viability of airport operations, this will impact substantially on the viability of the proposal. The other activities suggested by RSP, such as business aviation, maintenance, repair and overhaul, and aircraft dismantling are highly competitive markets and, to the extent that Manston might attract any such operations, these are unlikely to contribute substantially to the overall viability of the Airport.

13. The existing infrastructure at Manston Airport, if made good, is capable of handling 21,000 annual air cargo aircraft movements[1]. The actual usage of that capability would depend on the pattern of operation and how the infrastructure was used on a day by day basis. Our assessment, therefore, provides essential missing information from RSP's materials to date which is necessary for the purposes of section 23 of the Planning Act 2008 (as amended), for assessment purposes under the Environmental Impact Assessment Regulations and for consultation purposes.

14. Without prejudice to our view that demand to use Manston is not likely to be anything like 17,171 cargo aircraft movements a year, we have considered the land required to accommodate such a number of movements. Our assessment is that the land required would be substantially less than shown on the RSP Master Plan and that the proposed land take is excessive and without justification in terms of the compulsory acquisition of the land. Any development required to handle 17,171 annual movements by air cargo aircraft can all be accommodated to the south of the B2050 and, even allowing for passenger operations and other activities, would not require all of the airfield land to the south of the road. Obviously, on the basis of more realistic forecasts of future demand, the area required to support the ongoing operation of the Airport would be materially smaller.

15. We can see no justification for the inclusion of the 'Northern Grasslands' area within the DCO on the basis of it being for associated development. There will be little requirement for or likelihood of the relocation of freight forwarding activity from adjacent to the UK's main cargo hub at Heathrow to Manston, as suggested by RSP, and any requirement for such activity specifically to support the proposed level of freight activity at Manston could easily be accommodated on land to the south of the B2050. The development on the 'Northern Grasslands' site appears to be speculative commercial development which, based on the precedent at East Midlands Airport – the UK's principal airport for pure freighter operations – would be expected to be largely for non-aviation related uses.

[1] Based on an 18-hour operational day. Should a night time noise policy be agreed with Thanet District Council pursuant to the existing planning agreement that enabled a longer operational day and/or a number of scheduled night movements, then the capability could, in theory, be higher than 21,000 annual cargo aircraft movements.

16. In terms of the socio-economic implications of the proposed development, Azimuth have shown a lack of understanding of how such impacts should properly be calculated. Leaving aside the use of inappropriate multipliers, the impacts have been assessed at a national scale and should have taken displacement of activity from other airports fully into account, reducing the impacts well below those stated. Furthermore, the assessment should have considered the impact on alternative uses of the site, including SHP's proposed mixed use development and the socio-economic benefits deriving therefrom. We have set out a more realistic and robust assessment, which shows that the local impacts within Kent, even on Azimuth's forecasts, would be substantially less than claimed and it is these lower order effects which would need to be balanced with the environmental and other impacts in assessing the acceptability of the proposed development against the alternatives.

17. Unsurprisingly, the socio-economic impacts associated with the Airport are lower still on the basis of more realistic forecasts of likely usage if it re-opened. The operation is simply of a much smaller scale such that, in Year 2, it would generate only 452 jobs, 17% of Azimuth's estimate of 2,654. By Year 20, the differential is even larger, with the Azimuth estimates reaching over 30,000 jobs compared to our estimate of just over 1,000 jobs. Once again, the evidence presented by Azimuth on behalf of RSP cannot be relied upon. It is infected with the flaws in the traffic forecasting methodology identified previously but also the approach to identifying socio-economic impacts is, in itself, badly flawed. The socio-economic impacts are, as a result, massively overstated. In any event, these benefits would not be realised if the Airport ceases operation again due to it not being commercially viable.

18. As well as the Azimuth reports which form the basis of RSP's case, we have also reviewed a number of other reports on the potential for Manston. In overall terms, we agree with Aviasolutions for Thanet District Council that there is little realistic prospect of the re-opening of Manston Airport being a commercially viable proposition. We have reviewed their original report and the more recent reports and concur with their views on the overall structure of the UK air cargo market, noting that they, unlike Azimuth, have correctly understood the implications of our 2015 work for the FTA. We do not accept Northpoint's rebuttal of the Aviasolutions work. Like Azimuth, Northpoint's work is largely aspirational without any robust evidence or analysis of the market. Northpoint, too, misinterpret our previous work for the FTA and TfL.

19. In overall terms, we do not consider that the case that the re-opening of Manston Airport would constitute a Nationally Significant Infrastructure Project has been robustly made or substantiated. In any event, given that the baseline capability of Manston Airport is at least 21,000 annual cargo air transport movements (see section 4), this means that RSP must, effectively, be seeking to increase the capability of Manston Airport from 21,000 annual air transport movements by cargo aircraft to at least 31,000 such movements each year, a level of activity which has not been consulted on or assessed in RSP's Preliminary Environmental Information Report (PEIR). Indeed, RSP's consultation material does not provide any detail as to what the increase in capability would be as a result of its proposals (i.e. the increase in capability as a result of its proposed alteration to Manston Airport). As a minimum, the increase in capability would be to 31,000 annual air transport movements by cargo aircraft, but in our view their proposals would result in a significantly higher 'new' capability which is not revealed or assessed by RSP.

20. Our overall assessment is that RSP have failed to provide their own evidence of the capability of Manston Airport and the amount by which their proposals would increase that capability by. Rather, the only information that they present is a forecast of future freight demand, which has no credibility as explained in this report. There are, hence, major omissions in RSP's consultation material. This failure means that, in our opinion, the requirements in section 23 of the Planning Act 2008 (as amended) have not been satisfied. In essence, we would have expected RSP to be able to show:

- the capability of Manston Airport of providing air cargo transport services;
- the amount by which RSP is proposing to increase that capability by and thus the "new" capability; and
- a credible forecast for why that 'new' capability is required.

None of this information is provided by RSP.

1 INTRODUCTION

1.1 York Aviation was appointed by Stone Hill Park Limited (SHP) in September 2017 to review the evidence presented by RiverOak Strategic Partners Limited (RSP) in connection with RSP's prospective application for a Development Consent Order (DCO) for the redevelopment and re-opening of Manston Airport as a hub for international air freight services, which also offers passenger, executive travel and aircraft engineering services.

1.2 York Aviation is a specialist air transport consultancy that focusses on airport planning, demand forecasting, strategy, operation and management. The company was established in 2002. We offer a broad range of services to airports, airlines, governments, economic development organisations and other parties with an interest in air transport. Our team is a mixture of experienced air transport professionals and economists. Key members of the team have substantial experience of airport operations and development gained through working for Manchester Airports Group. Our core services include:

- business planning and strategy;
- capacity and facilities planning;
- master planning and planning application support;
- demand forecasting;
- economic impact assessment and economic appraisal;
- policy and regulatory advice;
- route development;
- transaction support.

1.3 Our clients include:

- Transport for London;
- Transport for the North;
- Department for Transport;
- Scottish Enterprise;
- Northern Ireland Government;
- Manchester Airports Group;
- Birmingham Airport;
- London City Airport;
- London Luton Airport;
- Ryanair;
- Freight Transport Association.

As well as numerous investors in airports and other parties with an interest in the development, operation and management of airports in the UK and abroad.

1.4 Louise Congdon, Managing Partner of York Aviation has provided evidence in relation to the need for and economic impact of airport development at several airport public inquiries, including Manchester Runway 2, Liverpool Airport, Doncaster Sheffield Airport, Stansted Generation 1, London Ashford Airport (Lydd) and London City Airport.

1.5 We were the authors of two specific reports upon which RSP seek to rely in making their case, namely a report for the Freight Transport Association (FTA) and Transport for London (TfL) in 2015 and a note on Freight Connectivity for TfL in 2013. The first of these documents was used by RSP in its public consultation and this may have led respondents to believe that we were supporting the re-opening of Manston, which is not true and, as we go onto explain in this report, our analysis in these documents for the FTA and TfL does not support RSP's conclusion that there would be a substantive and sustainable role for Manston in the UK air freight industry.

Historical Position

1.6 Manston Airport closed to commercial operations in May 2014, following several unsuccessful attempts to attain commercially viable operations. In the decade prior to closure, the Airport did manage to attract some cargo and passenger activity but not to levels that could ensure financial and commercial viability for its owners. The historic traffic performance is set out in **Table 1.1**. The Airport's cargo traffic peak was in 2003.

Table 1.1: Historic Commercial Traffic at Manston Airport

	Passengers	Cargo (tonnes)	Air Transport Movements[2] (excl. Air Taxis)	of which, Cargo Aircraft Movements[3]	Total Aircraft Movements
2003	3,256	43,026	1,106	1,081	24,934
2004	101,328	26,626	3,333	730	23,324
2005	204,016	7,612	4,631	177	21,358
2006	9,845	20,841	461	322	16,687
2007	15,556	28,371	608	444	21,521
2008	11,625	25,673	540	412	19,269
2009	5,335	30,038	583	485	18,902
2010	25,692	28,103	1,151	491	16,260
2011	37,169	27,495	1,472	419	18,695
2012	8,262	31,078	687	432	14,688
2013	40,143	29,306	1,640	511	17,504
Source: CAA Airport Statistics					

[2] Air Transport Movements (ATMs) are those services sold to the public as distinct from private flights or those operated on behalf of individual companies using their own aircraft. All substantive cargo operations in the UK would be treated as air transport movements. Aircraft movements are all aircraft movements at an airport, including 'touch and go' landings by flying school aircraft.

[3] Based on more detailed records maintained by the former airport operator, it would appear that CAA data may not record all empty cargo positioning flights. However, we do not have complete data. The total number of cargo flights could, hence, be somewhat greater than shown.

1.7 Table 1.1 shows that the number of air cargo movements and the tonnage carried was fairly consistent over the last 10 years of the Airport's operation, but these operations were not sufficient to support a commercially viable operation at the Airport.

1.8 We address the realistic levels of freight demand that Manston Airport might attract if re-opened in **Section 3** of this report.

The Application

1.9 RSP's prospective DCO application is predicated on its proposed alterations to the Airport's infrastructure, the effect of which is expected to increase by at least 10,000 a year the number of cargo air transport movements (CATMs) a year that the Airport is capable of accommodating. In practice, the case set out in the consultation documents produced by RSP and used in the Preliminary Environmental Information Report (PEIR) are predicated on it being able to attract and handle a forecast of 17,171 CATMs and 1.4 million passengers per annum (mppa) by 2039 and all of the assessments are made on this basis.

1.10 In order for RSP's proposals to be considered a Nationally Significant Infrastructure Project (NSIP), which can be taken forward using the DCO procedure under the Planning Act 2008 (as amended), it must comprise of an alteration to an airport which would *"increase by at least 10 million per year the number of passengers for whom the airport is capable of providing air passenger services"* or *"increase by at least 10,000 a year the number of air transport movements of cargo aircraft for which the airport is capable of providing air cargo transport services."*[4] [5] In this case, the relevant criterion relates to air transport movements for cargo aircraft. It is clear, therefore, that validating the capability of Manston Airport of providing air cargo transport services is vital to determining the legitimacy of a DCO.

1.11 RSP's prospective DCO application does not provide any explanation or understanding of the capability of the Airport before its proposed alteration is made. The capability of the Airport is a necessary component of Section 23(5) of the Planning Act 2008 (as amended), as it is from that figure that a prospective applicant must consider the effect of its proposed alteration, which must be expected to have the effect of an increase of at least 10,000 annual air transport movements by cargo aircraft. Without identifying the capability of Manston Airport, one does not have all of the components required under section 23 of the Planning Act 2008 (as amended) for a decision to be made as to whether the proposed alteration falls within section 23. In addition, an applicant must then explain what the 'new' capability would be following its proposed alteration in order to then assess the effects of the proposed alteration. We consider this further in **Section 4**.

[4] Section 23(5) of the Planning Act 2008 (as amended).

[5] It is noted that the Planning Act 2008 (as amended) also refers to an increase in permitted use as a relevant criterion. In this case, the existing planning consent under which Manston operated contained no limit on the number of annual aircraft movements permitted although there was a prohibition on night movement of aircraft between 23.00 and 07.00 in force, pending agreement to a night movement policy with the local planning authority, Thanet District Council. In any event, the increase would still need to be at least 10,000 per year in the number of air transport movements of cargo aircraft for which the airport is permitted to provide air cargo transport services.

1.12 A further consideration is the extent of development proposed in terms of its capability of supporting the projected number of movements but, more importantly, given that RSP is seeking to compulsory acquire the entirety of the Manston Airport site from SHP, whether the land area proposed is actually necessary in order to handle the projected number of aircraft movements and whether there is a *"compelling case in the public interest"* for its acquisition[6]. This requires consideration as to whether the case for the development and re-opening of Manston Airport is *"compelling"* and whether the full extent of land required has been fully justified. We consider this in Section 4 of this report.

1.13 We consider the socio-economic case for the development in **Section 5** of this report.

This Report

1.14 RSP sets out its strategic case and need for the re-opening of Manston Airport as a hub for international air freight in 4 volumes prepared by Dr. Sally Dixon of Azimuth Associates (Azimuth), namely '*Manston Airport - a Regional and National Asset, Volumes I-IV; an analysis of air freight capacity limitations and constraints in the South East and Manston's ability to address these and provide for future growth; June 2017'.* **Section 2** of this report reviews this analysis and the extent to which the analysis presented by Azimuth justifies the forecast cargo and passenger activity projected for Manston. This is important for the purposes of section 23 of the Planning Act 2008 (as amended) and whether the analysis presented by Azimuth provides a compelling case in the public interest for the acquisition of the site through compulsory acquisition procedures.

1.15 Within this report, we address, in particular, the use made by Azimuth of analysis that we undertook for Transport for London[7] and for the Freight Transport Association[8] in connection with the work of the Airports Commission and the need for new hub airport capacity for London. For reasons which will be made clear, the York Aviation work relied upon by RSP does not, and cannot be taken to, support RSP's proposed alteration to Manston Airport and, therefore, cannot be relied upon by RSP, the Planning Inspectorate, the Secretary of State and any future appointed Examining Authority (should RSP submit the application and the Secretary of State accepts the application). Given the errors in the interpretation and use of our work by Azimuth, we are concerned that the consultation carried out to date has not properly informed the public in respect of the valid interpretation of our work regarding the prospects for the viable operation of Manston as a freight airport.

1.16 We also review independent reports produced variously by Aviasolutions (Avia) for Thanet District Council in September 2016 and August 2017 and Northpoint Aviation Services (Northpoint) for RSP. This peer review of the other reports is at **Section 6** of this report. To the extent that we agree with these other reports, we do not repeat the detailed analysis in this report but reference the corroborating evidence as appropriate.

[6] Department for Communities and Local Government, *Guidance on compulsory purchase process*, October 2015, page 6.
[7] Referenced by Azimuth as Transport for London (TfL), *Note on Freight Connectivity*, unpublished paper 2013. For the avoidance of doubt, this note as made available by TfL under a Freedom of Information Request is appended to this report at **Appendix A**.
[8] York Aviation (2015), *Implications for the Air Freight Sector of Different Airport Capacity Options*.

1.17 Our conclusions are presented in **Section 7**.

2 CRITIQUE OF RSP APPROACH TO FORECASTING

2.1 In this section, we review the work of Azimuth that forms the justification for the DCO and was part of RSP's consultation documents in June and July 2017. The work is presented in 4 volumes:

- Volume I: Demand in the south east of the UK
- Volume II: A qualitative study of potential demand
- Volume III: The forecast
- Volume IV: The economic and social impact of airport operations

This section also addresses the basis of the demand forecasts for Manston as set out in Volumes I, II and III, focussing principally on air freight in this summary report. We address the socio-economic assessment in Volume IV in Section 5 of this report. Given the repetition of much of the material across the first three volumes of Azimuth's work, we have grouped issues broadly under the appropriate volume in this section.

2.2 We do not, in the main, dispute the accuracy of the factual detail, some relevant and some not, set out in the Azimuth reports or the veracity of the secondary evidence presented. We do, however, have serious and considerable issues in relation to the interpretation and the completeness of this evidence base, in particular relating to the use of previous York Aviation reports, and the inferences and conclusions drawn from it. Ultimately, we consider that the case put forward by Azimuth is weak and unsubstantiated as the extensive evidence base presented does not, in reality, support the conclusions drawn which, in many cases, go well beyond what can reasonably and sensibly be inferred from the information presented. Much of the information is effectively circumstantial and falls far short of making a compelling case, or indeed any case, that the demand forecasts would be capable of being realised.

2.3 Although Azimuth state at paragraph 1.2.1 of Volume 1 *"RiverOak, who specialise in identifying profitable market opportunities, has identified the substantial need for additional and specialised airport capacity for dedicated freighters in the southeast of England"*, we are unaware of any other research upon which RSP rely. All other documents produced in support of the prospective DCO appear to rely on the work of Azimuth.

2.4 In essence, the work of Azimuth sets out to address three key questions, which they assert provide the answer as to whether there is a compelling case in the public interest for the development of Manston Airport sufficient to meet the test for the inclusion of compulsory acquisition powers as part of the DCO. These are largely addressed in Volumes I and II, and lead on to the preparation of demand forecasts set out in Volume III. The three tests put forward by Azimuth are:

- *Does the UK require additional airport capacity in order to meet its political, economic, and social aims?*
- *Should this additional capacity be located in the South East of England?*
- *Can Manston Airport, with investment from RiverOak, relieve pressure on the UK network and meet the requirement of a nationally significant infrastructure project?*

2.5 At the outset, we query whether these are the correct questions to be addressed in terms of the case that RSP seek to make for the use of Manston as a major freighter hub. As is clear from the draft Airports National Policy Statement (NPS)[9], the first two questions relate to the requirement for more capacity at the UK's main passenger hub airport at Heathrow. The updated draft NPS makes clear at paragraph 1.30 that, in relation to the Government's preferred solution of a new northwest runway at Heathrow:

"Consideration has been given to alternative solutions to the preferred scheme, and the conclusion has been reached that there are no alternatives that would deliver the objectives of the Airports NPS in relation to increasing airport capacity in the South East and maintaining the UK's hub status."

2.6 Hence, these first two questions are not relevant to considering whether there is a need for dedicated freighter capacity at Manston sufficient to meet the tests for a DCO. Manston would make no contribution to meeting the identified requirement of passenger hub capacity for the UK or for the South East of England. Furthermore, the draft NPS makes clear, at paragraph 1.39 in relation to any other development consent application for airport development, that:

"Nevertheless, the Secretary of State considers that the contents of the Airports NPS will be both important and relevant considerations in the determination of such an application, particularly where it relates to London or the South East of England. Among the considerations that will be important and relevant are the findings in the Airports NPS as to the need for new airport capacity and that the preferred scheme is the most appropriate means of meeting that need."

2.7 This confirms that the proposed northwest runway at Heathrow addresses the identified need as set out by the Airports Commission for new airport capacity in the South East of England and that this provides a context against which any other DCO application would need to be assessed.

Demand in the South East of the UK (Volume I)

2.8 As has been noted above and in the most recent 2017 reports from Avia, much of the analysis presented by Azimuth relates to the evidence for a shortage of airport capacity overall in the South East of England and, specifically, the work of the Airports Commission relating to the need for additional hub airport capacity serving both the needs of passengers and of air freight. Much of the evidence presented by Azimuth to justify the existence of an airport capacity shortfall in the South East of England relates to the shortfall in capacity for passenger aircraft and, specifically, a shortage of capacity at the main aviation hub at Heathrow as noted above. This does not provide any underpinning justification for the specific development that RSP proposes at Manston, which comprises a specialist freight airport with a small number of low fare, regional and charter flights for passengers.

[9] Department for Transport, *Revised Draft Airports National Policy Statement: new runway capacity and infrastructure at airports in the South East of England*, October 2017. Note that the provisions referred to have not changed since the original draft as of February 2017, which pre-dated RSP's consultation.

2.9 Azimuth cite a number of reports which highlight the potential shortage of airport capacity, not just in the UK but across Europe, and the economic costs of not addressing these shortfalls. Azimuth then seek to imply that Manston could provide part of the solution and contribute to delivering these benefits. This is not justified and creates a false impression of the potential economic significance of RSP's proposals. A key point is that the reports relied on by Azimuth need to be seen in the context in which they were written, namely to set out the economic consequences of the failure to address the shortage of hub airport capacity principally for passengers but also providing bellyhold capacity for freight in the UK. All of the reports pre-date the Government's decision to promote an additional runway at Heathrow and were largely directed at ensuring that a positive decision was taken regarding the development of additional runway capacity.

2.10 Furthermore, the reference at paragraph 5.1.4 to concern expressed in the Aviation Policy Framework[10] regarding the implications of capacity shortfalls on the range of destinations served does not, as Azimuth infer, indicate a need for additional aircraft movements by dedicated freighter aircraft as these would require a concentration of freight flows to a specific destinations to fill a single aircraft at a time. Rather, the Aviation Policy Framework refers to the need for a wide range of global destinations being available at the UK's national hub airport, offering passenger and bellyhold capacity so as to maximise the choice and convenience for both passengers and shippers[11] of airfreight. It is this variety of destinations and, importantly, the high frequencies of service that lead the market to favour a bellyhold hub and spoke system so that freight can reach its end destination in the most efficient and cost effective way possible.

2.11 In the light of the Government's support for the provision of a third runway at Heathrow and the potential for further development of airport capacity beyond 2030[12], the use of these economic assessments of a constrained situation to 2050 is no longer relevant, if indeed it ever was, as a context for the potential re-opening of Manston as a freight airport. The use of this data by Azimuth to support RSP's proposals is disingenuous at the very least.

Reliance on York Aviation work

2.12 Ultimately, Azimuth rely heavily on two existing pieces of research undertaken by York Aviation during the Airports Commission process. The first an unpublished note for Transport for London (TfL) prepared in the early stages of that process (see Appendix A), and a later more detailed piece of research undertaken for the Freight Transport Association (FTA), in conjunction with TfL[13]. Both documents considered the overall position of the air freight market in the London system and what might be the circumstances of that market in 2050 under different assumptions regarding runway capacity development in the South East. Whilst we continue to believe that, in the very long term, there will be excess demand for air freight and that existing infrastructure in the London area will struggle to service this demand, more recent developments lessen the capacity pressure.

[10] Department for Transport, *Aviation Policy Framework*, 2013.
[11] Shippers are the originators of the airfreight, i.e. the exporters or importers.
[12] Department for Transport, *Beyond the Horizon The future of UK Aviation*, Call for Evidence, July 2017, paragraph 7.23.
[13] The FTA report being included explicitly in RSP's consultation documents on its website.

2.13 The key point, however, is that, to the extent that there is excess air freight demand in the long term, it does not follow that there will be a market for Manston, as asserted by Azimuth, as any excess demand at the Heathrow hub does not lend itself to being displaced onto dedicated freighter operations at Manston, for reasons we explain later in this section. To the extent that there is any role for additional freighter aircraft to accommodate some part of the displaced demand, there is ample spare capacity at other airports in the short to medium term at least. Thus, the York Aviation work relied upon by RSP does not, and cannot be taken to, support the need for a re-opened Manston Airport as a freight airport and cannot be so relied upon by RSP, the Secretary of State, the Planning Inspectorate and any appointed Examining Authority (should RSP submit its application and the Secretary of State accepts the application).

2.14 Specifically, Azimuth seek to rely on estimates presented in our reports of the number of freighter movements which might be required to carry the freight tonnage that could be displaced from the London airports in 2050 if there is no additional capacity provided by that date. It is important to note that our reports for TfL and the FTA went on to explain why there were other alternatives, such as regional airports or trucking to Europe, which would be favoured to meet demand ahead of any residual use of more dedicated freighters.

2.15 Despite the reports being very clear, when read in their entirety, that the solution to any shortage of capacity would not be extensive use of pure freighter aircraft, Azimuth rely on the freighter movement equivalents from our reports as justification for their projections of freighter movements at Manston both in the short to medium term and up to 2039. There are a number of problems with this approach:

- The analysis as at 2050 is not representative of the position at 2039 or any earlier date;
- The Government is committed to there being a third runway at Heathrow, with a major justification being the increase in bellyhold freight capability at the UK's principal freight hub;
- Gatwick has increased its effective hourly movement capacity, enabling more passenger aircraft and associated bellyhold capacity, particularly related to recent expansion of the long haul network;
- Stansted has 20,500 annual movements that are reserved for freighter aircraft, of which only around half are currently used. The Airport's Sustainable Development Plan[14] sets out an aspiration to grow cargo, including on dedicated freighter aircraft, to 400,000 tonnes annually;
- Regional airports have developed additional long haul services, providing additional bellyhold capacity, and have plenty of spare capacity to accommodate additional freighter aircraft movements to the extent that there is any need for more pure freighter capacity;
- The Government has not ruled out the provision of further additional airport capacity beyond 2030.

2.16 Fundamentally, the use of theoretical levels of excess air freight demand at 2050 cannot be used to underpin short to medium term forecasts for the expected usage at Manston or an assessment as to whether it could be viably developed in the meantime, regardless of the precise timing of the delivery of the third runway at Heathrow.

[14] Stansted Airport Ltd, *Sustainable Development Plan 2015*, Summary.

Transport for London

2.17 At the outset, it is important to note that our 2013 paper for TfL (referenced by Azimuth as an unpublished TfL note[15]) points out the UK did not then appear to be disadvantaged in terms of air freight capacity and that there was still substantial capacity for freighter movements remaining at Stansted. This is an important consideration in terms of short term forecasting and should have informed Azimuth's thinking.

2.18 In this paper for TfL, we estimated the excess air freight that could not be accommodated in bellyhold capacity on passenger aircraft under different scenarios of additional capacity at the London airports and converted that excess to an equivalent number of freighter movements. The 54,000 potential additional freighter movements that Azimuth (and Northpoint) cite at paragraph 3.4.5 are the additional freight carrying capacity required in the event of there being no further runway capacity at any of the London airports[16] (a severely constrained scenario) that is simply no longer realistic as we have set out above. Azimuth's (and Northpoint's) use of this figure as a potential market for Manston is misleading.

2.19 The note then goes on to set out how this requirement for additional freight capacity might be met and the economic consequences. In the first instance, we noted that around 14,000 additional freighter movements could be accommodated in the London system if no capacity expansion takes place, and this included the use of additional available freighter slots at Stansted. Azimuth appear to have taken our inclusion of Manston, as an example of a smaller airport in the South East that could accommodate some movements, as an indication that it could play a substantial role, wrongly stating in the Executive Summary and at paragraph 3.4.5 that we said that Manston was expected to handle 14,000 freighter movements. Manston was given simply as an example of an airport with freighter activity at the time of writing (2013) with the potential to accommodate some additional movements (as we set out in Section 4 of this report, the capability of Manston Airport is 21,000 annual cargo aircraft movements before allowing for any night operations).

2.20 In essence, our assumption was that, across the London airports (including Manston albeit on the periphery of the South East of England), it was plausible that, by 2050, double the number of existing freighter movements could be accommodated compared to 2012. If anything, the correct inference to draw from this is that we expected the number of freighter movements to double from 2012 levels, i.e. to around 1,000 movements a year at Manston.

2.21 Beyond this, the question of how excess freight demand in the London system in the future will be served is largely left open in our 2013 note but we made clear, at paragraph 26, that we believed the two most likely options would be greater use of bellyhold capacity and freighter operations at UK regional airports, noting Birmingham, East Midlands and Manchester particularly, or the trucking of freight to major European hub airports with substantial route networks and bellyhold capacity. This reflects the growing role of regional airports in serving their local freight markets (avoiding the need to truck to London), while balancing particularly the attractiveness of the substantial bellyhold capacity, lower air freight rates, and flexibility offered by the major continental hubs. We discuss this further below in relation to the economics of the air freight sector.

[15] See Appendix A.
[16] Based on the Airports Commission capacity assumptions.

2.22 Our TfL note also makes clear (paragraph 25) that, to the extent that there was a capacity constraint, the first consequence might well be less capacity for transit freight through the UK airports, prioritising freight to and from the UK. Ultimately, our TfL note concludes that:

"In the constrained, max use, case, there would be severe limitations of pure freighter movements at the London airports, which could amount to around 26% of the required air freight capacity to/from London. The extent to which this would act as a limitation on overall air freight volumes would depend on the extent to which the freight is still carried from regional airports or by truck. Clearly this would impact on the cost/efficiency of shipment, which in turn could impact on freight volumes carried. Again, it is outside the scope of the current exercise to assess these effects.

Overall, in assessing the economic value for air freight between the scenarios, the main difference is likely to lie in producer costs passed through to users and the impact that would have on business costs and hence output/freight generated. It would not be safe to assume that the reduction in cargo ATMs at the London airports necessarily translates to lost shipment value in its entirety."

2.23 Azimuth, at paragraph 3.3.2, incorrectly characterises our note to TfL as expressing a concern about the amount of trucking to Europe. Significantly, the last part of paragraph 9 is omitted by Azimuth. When looked at in its entirety, it is evident that we were noting that trucking is an inevitable part of the market, for reasons which we explain later in this section:

"However, the role of the low countries and Germany in acting as the major freight centre in western Europe is noticeable. In total, the main German freight airports handled almost 4.2 million tonnes of freight in 2012 which, when combined with the Netherlands and Benelux countries, amounted to 7.2 million tonnes of air freight flown. These airports have developed major and specialist air freight roles, with freight being trucked from all over Europe to feed these freight hubs. The integration of trucking with air freight should not be overlooked, even within the UK. In practice, it is unlikely that the UK could replicate this role, even with unconstrained airport capacity, due to its island location on the western edge of Europe."[17]

2.24 In other words, our assessment was that there would not, in effect, be a shortage of capacity for freight, albeit that there would be some loss of producer efficiency by way of increased trucking and time related costs, which would be small in the context of the overall cost of air freight transport. Our summary conclusion in this note makes this clear:

"The key difference between these two scenarios would be in terms of the efficiencies and economies of scale gained by the industry arising from the concentration of freight activity at a single hub. In both cases, the overall volume of air freight to and from the UK is expected to be broadly the same, although the actual freight carried including transit freight would be higher in the hub case. However, under the new hub scenario, savings from greater efficiency may be passed onto users, so reducing shipping costs and facilitating trade leading to higher freight volumes, but it is beyond the scope of the current exercise to assess this. "[18]

[17] See Reference 6, paragraph 9.
[18] Ibid, paragraph 30.

2.25 We were cautioning against the assumption that there would be a requirement for more capacity for dedicated freighter aircraft in a constrained scenario as there would be other more cost effective routes by which the freight would be carried, albeit at a higher cost than with the availability of more bellyhold capacity under a 4-runway hub scenario as being advocated by TfL at the time. Use of more dedicated freighter aircraft would represent a further increase in cost for shippers as we explain further later in this section.

Freight Transport Association

2.26 Our work for the FTA and TfL in 2015[19] again identified the potential for excess demand for air freight in the London system by 2050 and converted this number to freighter movements to demonstrate the point that a four runway hub could house this excess demand in one place. If this demand could not be served in the London system, the report makes clear our belief that it would then be trucked to alternate airports that offer significant options in terms of bellyhold freight or freighter operations. In this context, the bellyhold capacity and destinations offered by the continental hubs are a decisive factor in determining how the market will be served due to the range of destinations served and the lower costs inherent in using bellyhold freight. These continental airports act as freight consolidation hubs for the whole of Europe given their more central locations and, hence, offer consolidation advantages and more competitive freight rates.

2.27 Azimuth's interpretation of our work for FTA appears to erroneously assume that excess demand in the London system will need to be met by additional freighter movements from an airport in the vicinity of London. For instance, at para 4.2.3, they state that *"Even so and as York Aviation figures show, there will be a shortfall of slots for dedicated freighters, likely to be in the region of 45,000 by 2050"*. Whilst our report does estimate that the excess air freight demand with a third runway at Heathrow would be around 1.2 million tonnes by 2050, equivalent to 45,000 additional freighter movements, at no point does our report say that this is how the market could or should be served. Indeed, as we state on Page 20 of our FTA report *"we have assumed that freighter aircraft primarily act as a means to supplement bellyhold capacity where insufficient bellyhold capacity is available"* and our later analysis of how the market might react to this excess tonnage focusses on this assumption by considering the attractiveness of alternative airports in terms of both passenger and freight services on offer. We continue to be of the view that bellyhold capacity elsewhere will be the primary alternate given the price advantages, the flexibility offered by the long haul networks of major airports, including those on Continental Europe, and the low cost of trucking as our report for FTA makes clear.

2.28 By the time of this report for FTA, Manston had closed but, even if it had not and had been included within our modelling work, the lack of bellyhold capacity and limited overall market presence would have meant it could only be projected to capture a very small percentage of the excess demand. For instance, East Midlands, an airport with around 10 times the freight throughput of Manston, and only 1 hour further away from London than Manston (and substantially closer than Manston to many of the major regional markets and manufacturing centres) captured only 8% of the excess demand in our 2015 modelling. In the Heathrow 3rd runway scenario, this equates to around 100,000 tonnes in 2050. This would equate to around 3,600 additional freighter movements in 2050.

[19] See paragraph 1.14 above.

The Economics of the Air Freight Industry

2.29 Throughout the analysis, Azimuth appear to assume complete interchangeability between bellyhold freight, pure freighter operations and express/integrator operations without any analysis of the economic drivers for the use of each type of freight transport and the economics of trucking of air freight between the UK and Europe. This is a fundamentally unrealistic assumption and leads to a misrepresentation of the market opportunity for pure freighters.

2.30 In our work on international connectivity for Transport for the North (TfN) in 2016 (in conjunction with MDS Transmodal[20]), we identified the key characteristics of the air freight market. We identified that air freight can, in principle, be broken down into three main sectors:

(i) bellyhold, where cargo is carried principally in wide-body long-haul passenger jets[21]. Shippers are able to take advantage of flights to a wide variety of destinations from the main hub airports such as Heathrow and from other major European hubs, e.g. Frankfurt and Paris, similarly offering a wide range of global destinations on passenger flights;

(ii) freight only services, which are viable on only a handful of routes and/or for specialist commodities on an ad hoc basis. This is an increasingly limited sector in the UK due to the variety of bellyhold routes available and the strong presence of the integrators in the market;

(iii) express 'parcel' type services that operate on a hub and spoke network basis by 'integrators' (typically DHL, Fedex and UPS). These services increasingly carry larger consignments and East Midlands and Stansted Airports dominate the UK market, feeding bigger hubs located more centrally within Europe.

2.31 In general, air freight is seeking door to door journey times of the order of 4-5 days, which is possible using bellyhold through major hub airports, whilst integrator freight will generally seek a door to door journey time of no greater than 2 days.

2.32 The majority of tonnage moves by bellyhold as, in essence, this capacity is sold at marginal cost, with the majority of the airlines' operating costs covered by the passengers carried. The market is dominated by Heathrow and the other major European passenger hub airports because the sheer range and frequency of services provides a competitive environment which typically delivers the lowest freight rates and the greatest range of destinations served. There is high locational inertia in the air freight sector, which is likely to remain focussed around Heathrow for the foreseeable future as it is expected to remain by far the largest UK airport for cargo. In our TfN work, we estimated that around 70% of freight from the North of England in 2015 was trucked to or from other hubs for uploading, with some freight trucked to Heathrow for consolidation by the freight forwarders before being trucked back to Manchester to avail of bellyhold capacity there. Assuming similar proportions from other regions of the UK, it is clear that at least a part of any excess demand at the London airports is likely to be satisfied at regional airports, not least as airports such as Manchester, Birmingham and Edinburgh increase their range of direct long haul services offering bellyhold capacity.

[20] Transport for the North, *International Connectivity Evidence Report*, York Aviation/MDS Transmodal July 2016, Appendix C.

[21] Short haul flights provide small amounts of bellyhold capacity but, generally, low fares airlines do not carry cargo within their operating model.

2.33 The integrator sector carries more urgent parcel traffic based upon hub and spoke networks offering (typically) two day intercontinental transits. Spoke services from the UK from East Midlands and Stansted serve central European hubs at airports such as Brussels and Frankfurt. The need for frequency tends to mean that, typically, only one 'spoke' can be justified per integrator per country and these spoke services tend to be centrally located to maximise accessibility from all parts of Great Britain. East Midlands Airport is ideally placed in this regard. The integrators are increasingly using bellyhold capacity as well, essentially acting as freight forwarders in this regard.

2.34 A handful of freight only services complement bellyhold and integrator services where there is sufficient cargo to justify dedicated aircraft to a particular destination. There are a small number of scheduled freighter services which circumnavigate the globe, picking up and dropping off cargo at each point. More often, dedicated freighter services, other than those linking with major cargo hubs such as Hong Kong, Seoul or Dubai, operate on an ad hoc basis dealing with special consignments, such as large loads, or specific commodities where time is of the essence, such as the perishables trade, which was previously the principal cargo usage at Manston. Whilst there is some cascade from bellyhold to pure freighter operations where capacity is not available or time is critical, ultimately, it is the economics of the operation which is key. It does not follow that displaced bellyhold freight will seek a more expensive pure freighter service from a nearby airport over the use of available bellyhold capacity from a more distant airport.

2.35 In particular, we identified that the high cost of air freight leads to a pressure to be cost effective and the role of freight forwarders[22] in consolidating loads in order to secure the lowest possible freight rates. Cargo, other than integrator operations, tends to be assembled by specialist air freight forwarders, which cluster around the major hub airports so as to avail of the competitive freight rates on offer. As the road transport costs are very low compared to the value of the cargo and the air freight costs, air cargo is often trucked long distances to find capacity (at a lower freight rate). This forms an important driver in how freight moves from its origin to the actual airport of uploading and applies both within the UK and between the UK and Europe.

2.36 The charges levied per tonne of cargo for the long haul flight leg are high relative to inland haulage costs so that a relatively small difference in air freight rates between different airports will easily cover any additional costs for road haulage. It is for this reason that the majority of air freight will always gravitate towards bellyhold where there is capacity available, even if there is a substantial road haul as part of the journey. Given the wide range of bellyhold services available from the UK, which will increase following the development of a third runway at Heathrow and long haul service growth elsewhere, it is reasonable to expect that pure freighter operations will continue to make up a declining share of the market.

[22] A freight forwarder, forwarder, or forwarding agent is a person or company that organizes shipments for individuals or corporations to get goods from the manufacturer or producer to a market, customer or final point of distribution. For example, the freight forwarder may arrange to have cargo moved from a plant to an airport by truck, flown to the destination city, then moved from the airport to a customer's building by another truck.

2.37 Trucking of air freight is not a new phenomenon. The work by Steer Davies Gleave for the Department for Transport (DfT) in 2010[23] estimated that over 50% of air freight leaving the UK for Europe was trucked rather than using the bellyhold of passenger aircraft. In other words, airlines are using trucks rather than aircraft to distribute freight arriving on and connecting to their global passenger (bellyhold) and freighter operations. At the time of this analysis, Manston was still operational. If it was more economical to use a pure freighter service from Manston rather than trucking over the Channel, this would have been happening in 2010 but it was not. Other than the potential additional border checks as a consequence of Brexit, Azimuth advance no reasons why freight would switch from the cheaper trucking/bellyhold model to expensive pure freighter operations. We believe that the economics of air freight will continue to favour the use of bellyhold freight, other than for a minority of consignments, to and from the UK even if there is a lengthy trucking leg.

Manston in the context of the drivers of air freight

2.38 At Para 4.0.2, Azimuth suggest the reasons why cargo airlines choose airports. In reality, Manston does not fulfil a number of these key criteria meaning that, even in the most favourable circumstances, it can never be more than a niche player in the market. Specifically:

- It does not provide convenient access to the main markets;
- The drive time to Central London is nearly two hours[24];
- The great majority of the Airport's natural catchment is sea and there is very limited evidence of any local demand base;
- Competition is strong from the London airports, with already established freight forwarding and a wide range of bellyhold capacity;
- Given that the Airport is closed and staff dispersed, Manston would not provide any advantages in terms of experience of cargo handling and is likely to offer only marginal advantages in terms of the speed of transit through the Airport;
- Manston could potentially offer lower airport costs, albeit this would impact on the viability of the Airport, but these lower airport costs and any reduction in flying time would not offset the additional cost of freighter transport compared to bellyhold;
- It is also unclear as to what extent night time operations will be an option at Manston given the operating constraints under which the Airport formerly operated which prohibited scheduled night flying[25].

[23] Steer Davies Gleave, *Air Freight: Economic and Environmental Drivers and Impacts*, March 2010

[24] Based on Google maps standard driving speeds.

[25] Azimuth Vol 1 paragraph 7.1.6 quotes from a 2005 MORI survey that people were not impacted by night flights but this would reflect that there were no scheduled night flights when the airport was operational. Local resident support for re-opening (paragraph 7.1.1) needs to be seen in this context. We note that RSP's Consultation Overview Report states (on page 11) that *"Air freight operations would be predominantly during the daytime, in accordance with operations at other similar air freight airports. There may be a requirement for a small number of night-time flights, the details of which will be determined as part of the on-going project design, taking account of feedback from the Statutory Consultation, and presented with the DCO and assessed within the Environmental Statement. For the purpose of the PEIR assessment, and as a worst case, the working assumption is that there might be a maximum of eight (8) aircraft movements at night between the hours of 2300 and 0600."*

2.39 A key consideration is Manston's geographic position substantially away from the economic spine of the UK and with very limited local demand. It is remote from most markets with a journey time to the M25 of nearly 1 hour and accessibility beyond would be subject to the general levels of traffic congestion in the London area. Azimuths's suggestion (paragraph 1.2.2) that Manston might effectively serve as a 4th runway for Heathrow for air cargo flights is merely fanciful given the journey time of 1¾ hours, which is little shorter than the time from Heathrow to East Midlands Airport with an already well developed infrastructure for handling air freight and more likely to fulfil such a role in relation to freight overspill from Heathrow that is time critical or of such a special nature as to warrant the use of pure freighter aircraft.

2.40 Many of the other points raised by Azimuth regarding security, e-commerce and just-in-time delivery are all factors relating to the overall efficiency of the industry. If anything, what the analysis presented by Azimuth demonstrates is the importance of developing efficient freight networks serving the whole of the UK rather than the need for a re-opened freight focussed airport in the South East of England. Manston could only recapture economic benefits from cargo being trucked to the continent, as asserted at paragraph 4.8.4, to the extent that it provides a more economically efficient solution. Manston was not viable in the past and there do not appear to be significant changed circumstances that would make it viable in the future. This lack of inherent viability is indicative of the fact that it did not provide an economically efficient solution.

2.41 One of the key reasons that the UK aviation sector is so productive, as cited by Azimuth at paragraph 5.2.1, is that it allows the market to work. Inefficient and unnecessary actors in the market are allowed to fail. There is a strong argument to suggest that the closure of Manston is simply a part of the process of the market working and delivering more efficient solutions. The argument around the importance of the sector and Manston's role only applies if it is commercially viable (and makes an adequate return to shareholders) and represents an economically efficient allocation of resources. Otherwise, it will in fact damage the productivity of the UK aviation sector.

2.42 Azimuth asserts, paragraph 6.2.2, that the perceived lack of investment in Manston by the previous owners was an impediment to freight growth. However, this is at odds with previous statements by former operators of the Airport and comments by interviewees, in Azimuth's Volume I, on the quality of service received by customers at Manston. In its 2002 results, the Wiggins Group plc claimed that, following investment, Manston was capable of handling 200,000 tonnes of cargo a year[26]. The subsequent owners, Infratil, published a Master Plan in 2009[27] which identified triggers when there might need to be some increase in cargo aprons or warehousing at 100,000 tonnes and 200,000 tonnes of cargo annually. Given that peak tonnage was 43,000 tonnes, this does not suggest that lack of capacity or shortage of investment was an impediment to increasing cargo volumes at Manston in the past, rather the limitation was the market.

[26] https://www.investegate.co.uk/wiggins-group-plc---230-/rns/final-results/2002073007004526862/
[27] Manston, *Kent International Airport Master Plan*, November 2009, page 62.

2.43 The only specific impediment to increasing throughput cited by Azimuth is a limitation to 1 aircraft being handled at a time but we understand that this was not the case, albeit supervised taxi-ing procedures had to be put in place when there were 2 aircraft using the apron at the same time. In practice, it does not appear that lack of investment was an issue which impacted on freight throughput. Rather, it must be assumed that the previous owners did not believe there was a viable economic case for investment. Lack of investment does not necessarily mean constrained demand and it may simply be that there was not sufficient demand to justify investment and that the market was functioning properly.

Qualitative assessment of demand (Volume II)

Forecasting Methodology

2.44 Volume II of Azimuth's work begins with an assessment of different forecasting approaches for cargo, noting that forecasting of cargo is not as well developed as that for passenger activity. We agree that air freight forecasting is difficult and that there is a lack of hard data. However, we do not agree with Azimuth's assertion that quantitative methods are, therefore, not suitable and that qualitative methods are more appropriate. The evidence cited by Azimuth at Table 3 does not support this conclusion and suggests that causal methods (regression analysis) remain the most appropriate for forecasting demand for cargo and freighters. Such an approach is far more akin to the type of analysis undertaken by York Aviation in its work for TfL and FTA and upon which Azimuth seek to rely as a basis for the scale of activity that Manston might attract.

2.45 Whilst we understand the reason for Azimuth's assertion that it <u>may</u> not be appropriate to extrapolate Manston's future performance from its historic performance, this does not take away from the importance of grounding any future forecast in quantitative evidence of the drivers of the market and how these might change in the future. In any event, the assertion is at odds with the reliance placed by Azimuth on our quantitative assessments of 'spill' from the London airports at 2050, in the circumstances of no additional runway at Heathrow, as corroboration of their qualitative projections for Manston to 2039. To reiterate, reliance on these estimates is not appropriate for considering the potential role for Manston, not least as they relate to 2050 and cannot be applied to 2039, or any earlier year, without working through from first principles how any constraints in the London system might bite and the likely market reaction.

2.46 As well as reviewing forecasting methodologies, Azimuth sets out some air freight growth forecasts produced by others. At paragraph 3.6.1, Azimuth cite the DfT's assumption for growth in freighter movements in its 2013 UK Aviation Forecasts at 0.4% p.a[28]. The DfT makes clear that the growth in freighter flights is seen as a residual, representing the share of freight on pure freighter flights after allowance is made for bellyhold cargo being the primary mode. It is clear that the DfT is expecting the share of the market using pure freighters to and from the UK to continue to decline. Indeed, the most recent UK Aviation Forecasts published by the DfT[29] suggest that there is expected to be no growth in the number of pure freighter movements to and from the UK above 2016 levels in the period to 2050. Hence, any increase in freight movements at Manston would have to come at the expense of other airports. We discuss the ability of other airports to handle such movements in Section 3.

2.47 Given the existence of a definitive 'official' UK forecast for freighter movements over the period to 2050, it is not clear why Azimuth rely on global forecasts for air freight produced by the manufacturers Boeing and Airbus for the purpose of selling aircraft (paragraph 2.1.10) as a basis for the longer term projections of freighter movements at Manston in their Volume III (paragraph 2.3.2). The global growth rates cited by Azimuth are inappropriate for projecting growth in freighter movements at Manston for several reasons:

- They relate to RTKs (Revenue tonne kilometres) (Boeing[30]) and FTKs (Freight tonne kilometres) (Airbus[31]) and will reflect increased tonnage per aircraft, including freight carried in the bellyholds of passenger aircraft, and longer sector lengths as well as any growth in aircraft movements;
- The projections relate to growth in air cargo at the global level and lower growth is clearly shown as expected to/from and between more advanced economies such as the UK;
- In the case of Airbus, specific lower growth rates are cited for growth in freight tonne kilometres in freighter aircraft (2.6% p.a. compared to 3.8% per annum in their latest forecasts which are lower in any event than the previous forecasts used by Azimuth). Even then, this growth rate relates to FTKs not to freighter movements.

2.48 Taken together, these reports point to a declining market share for freighter aircraft in mature markets such as the UK, where there is a good supply of bellyhold capacity. It is, hence, not reasonable to use the Boeing and Airbus growth rates as a basis for projecting future growth in movements by pure freighter aircraft to and from the UK, particularly given the existence of DfT projections for such movements. Rather than being conservative, as suggested at paragraph 2.3.2 in Volume III, the use of a 4% per annum growth rate for years 10 to 20 at Manston is highly optimistic, and is certainly not supported by the DfT's analysis of the UK market.

[28] Department for Transport, *UK Aviation Forecasts 2013,* paragraph 3.49.
[29] Department for Transport, *UK Aviation Forecasts*, October 2017, paragraph 2.56. The decline in pure freight movements since 2001 is illustrated in Figure 4.5.
[30] Boeing, *World Air Cargo Forecast 2016-2017*, page 2.
[31] Airbus, *Growing Horizons – Global Market Outlook 2017/2036*, page 101. Note that the 2016 version to which Azimuth refer is no longer available on the Airbus website.

Interviews

2.49 Having rejected the recognised methodologies for forecasting freight demand at an airport, Azimuth rely on interviews with 24 individuals and/or organisations as set out in Table 4 of their report. To a large extent, these are people with past connections with Manston and who may not have a totally unbiased view on the desirability of it re-opening. It is notable that few cargo airlines or large scale air freight operators were interviewed, rather the list is dominated by local interested parties and logistics firms, not all of which are still in business. In some cases, throughout the remainder of Volume II, individuals are referred to who are not listed in Table 4 and, in other cases, individuals or organisations are referred to in different terms to those listed in the table. This does not suggest a very robust or rigorous approach to setting out the potential for Manston. Although the framework of questions is set out at paragraph 4.3.1, we are unable to identify any questions that would enable an assessment to be made of future passenger or freight volumes that would be likely to use Manston and which could be used as the basis for any forecast of future usage.

2.50 In the light of this, the remainder of Volume II is largely a qualitative description of current problems experienced in transporting cargo in general in the UK and in terms of past operations at Manston. These do not, however, provide any insight into the potential scale of demand for freight or passenger services at Manston. Essentially, it constitutes a speculative description of where there might be opportunities if Manston re-opens. We highlight the speculative nature of some of these comments relating to freight activity below. Taking Azimuth's categories in turn:

Process and Issues associated with airfreight

2.51 This analysis is generic and of no direct relevance to the potential for Manston. In particular, no linkage is drawn between the commodities which typically use air freight set out at paragraph 5.1.2 and the economic sectors active in Kent. Significantly, at paragraph 5.1.5, Azimuth cite a respondent that made clear that *"tendered"* prices determine how air freight moves. This is a powerful reason why bellyhold will in most instances win over pure freighter operations. Issues of price for pure freighter operations are reinforced at paragraph 5.1.10, particularly in relation to the risks associated with higher fuel prices.

2.52 There are then a number of comments regarding the current difficulties of operating at Heathrow at paragraph 5.1.6ff. It is recognised that there are few realistic slots available for additional freighter operations at Heathrow so unsurprisingly Coyne Airways cite a difficulty for them if they sought to fly to Heathrow on an ad hoc basis. However, in reality, this airline is not a major player in the UK or Europe, operating a small number of weekly flights from Amsterdam to feed its network of flights within the Caspian Sea region[32]. Comments from ACC Shipping and Active Transport need to be read in the context that they are local Kent shippers and transporters of cargo that have a vested interest in seeing Manston re-opened.

[32] http://www.coyneair.com/caspian_schedule.htm

Future trends in airfreight

2.53 To some extent, the issues highlighted here regarding security relate to the specific issues around Calais at the time when the interviews were carried out but the situation has now changed since October 2016. It is recognised that security of air freight is an increasing concern globally but this would apply at Manston as well as elsewhere.

2.54 Again, paragraph 5.1.15 highlights the dominance of bellyhold freight. Whilst noting that the A380 aircraft has more limited space for bellyhold cargo than B747s at paragraph 5.1.14, Azimuth neglect to point out that other new aircraft, such as B787 and A350 aircraft, do not suffer from similar reductions in space and capacity and continue to offer substantial bellyhold opportunities and capacity.

Motivation to use Manston

2.55 The response cited at paragraph 5.1.19 makes clear that the most important factor in considering freighter operations is *"cost, speed and access to road networks"*, which is not a condition which Manston can meet for the majority of the UK. The local transport firms (paragraph 5.1.21) clearly saw an advantage for them in Manston re-opening but it is far less clear that this was reflected by the broader industry. Significantly, paragraph 5.1.20 does not address the operational reasons why major freight forwarders seek to locate close to Heathrow, Stansted or East Midlands, except possibly for their city centre sales offices.

2.56 The response quoted at paragraph 5.1.23 makes clear that for Manston to be an attractive option to freighter operations, it would need to offer night operations. In the light of the past ban on scheduled night flying, this would be a major change to operating mode, with consequential environmental impacts. Furthermore, RSP's position in relation to whether scheduled night flights will be allowed or not is ambiguous (see paragraph 2.37 above) and we understand that some supporters of the re-opening have said that such operations would not be allowed. In the event that night flights are not allowed or heavily restricted, this would further diminish the attractiveness of Manston for pure freighter operations (comparisons with the major European freight hub at Frankfurt as included by Azimuth are simply not realistic).

Demand model and data for Manston Airport

2.57 This section does not, in fact, contain any data for Manston nor set out a view on how future demand might be modelled.

Freight focussed findings

2.58 The one airline interviewed made clear (paragraph 5.2.3) that *"success at Manston depended upon identifying a niche market and becoming known for excellence. In particular, suggestions included a perishables centre, handling of live animals, easy access for charter flights, and handling cargo that is not necessarily straightforward"*. We would have expected the remainder of the report to concentrate on quantifying the size of this niche market, including any Brexit implications for exports (paragraph 5.2.1). It is clear, however, that the realistic expectation for Manston is for a small niche operation rather than as a general 'overspill' airport for London.

2.59 The spurious suggestion that freight might be *"banned"* from Heathrow (paragraph 5.2.6) and Manston might benefit is clearly nonsense in the context of the Government's support for a third runway to provide capacity for freight in the bellyholds of passenger aircraft as much as for passengers.

2.60 Whilst the suggestion from Coyne Airways about the potential for Manston to offer fuel cost savings when flying south from the UK (paragraph 5.2.11) is interesting, it appears not to take any account of the locations where freight is generated in the UK or where it is consolidated into viable loads. It does not seem likely that Coyne Airways would itself relocate its one European feeder service from Amsterdam to Manston given this would increase rather than decrease fuel burn. As noted earlier, the real reason freight is trucked across the channel is to avail of cheaper freight rates available at the main European hub airports, which act as focal points for cargo for the whole of Europe.

2.61 Azimuth also claim that the bellyhold model is broken and that there is about to be a shift back to pure freighter operations at paragraph 5.2.25 but this is pure speculation and at odds with other industry commentators (see Airbus freighter forecasts which project an increasing share of bellyhold globally[33]) and the UK Government's view as expressed by the Department for Transport.

2.62 Whilst paragraph 5.2.24 says there was underinvestment in facilities by the previous owners, the quotation from Finlays at paragraph 5.2.26 makes clear that Manston previously offered a good level of service. Hence, there is little evidence to suggest that underinvestment was any impediment to Manston attaining its natural share of the market in the past. Although Finlays have now relocated their operation back to Stansted, we would accept that they might choose to return to Manston with a similar number of movements as previously if the facilities were re-instated and provided the cost of operating was competitive compared to Stansted. There may also be scope for some humanitarian and military flights (paragraph 5.2.48) but these will be small in number and not the basis for a viable operation of the Airport.

2.63 At paragraph 5.2.45, Fedex's criteria for an airport to be attractive to an integrator are set out and these seems to describe the characteristics of their main UK base at Stansted. There is then a discussion about some of the problems DHL perceive at Heathrow but, of course, DHL's principal UK operation is focussed at East Midlands where they have an extensive operation. From our work with the integrators and with the Freight Transport Association, we know that Manston is too peripheral for integrator operations serving the UK. Integrators have a strong preference for locations more centrally located in the UK with good road access to all of the major markets. The availability of land for warehouses (paragraph 6.2.6) is far less important than a location central to the market and the availability of good road access, neither of which are characteristics of Manston. This would apply equally to the suggestion that Amazon might locate there or that the Airport could become a base for drone operations (6.3.24-27). It is simply in the wrong place to serve the market being at the far south east at the end of the country on a peninsula.

[33] See Footnote 31.

2.64 The comparisons to Frankfurt Airport, in terms of the ability to sustain a freight operation without night movements, are simply irrelevant given that Frankfurt carries the second highest freight tonnage of any European airport and acts as a major cargo hub for air and road freight given its highly central location. Much of Frankfurt's cargo is carried in the bellyholds of passenger aircraft and this underpins the freight hub role. Given that Manston does not have anything like the overall market attractiveness of Frankfurt, for many reasons, any constraint on night operations would be a major impediment to freighter operations.

2.65 We do not discuss the passenger market in this report, albeit we have reviewed Azimuth's forecasts and disagree with their conclusions, which we can report upon should any application be made by RSP. The latter parts of Azimuth's Section 5 mention opportunities around ancillary activities such as MRO, aircraft recycling, flying schools and business aviation. We would simply highlight, at this stage, that these areas are highly competitive markets and it is not immediately obvious why Manston would provide an attractive option for operators in these markets when compared to what is often global competition. Nor is it evident that such activities would contribute substantially to the viability of Manston.

Analysis and Conclusions

2.66 Sections 6 and 7 of Azimuth's Volume II, go on to discuss what this means for Manston and draw conclusions. In general terms, Azimuth seek to draw conclusions about the cargo performance of Frankfurt, Heathrow and Stansted airports which are not consistent with the actual facts.

2.67 Again, there is reliance on our work for TfL and the FTA (paragraph 6.1.8) to justify the conclusions reached. As stated above this work does not support RSP's case.

2.68 Azimuth then identify that there are sectoral and geographic markets for which Manston has potential but there is no quantification of the scale of these markets. This is a fundamental gap if the scale of any potential opportunity is to be understood.

2.69 At paragraph 6.3.1, Azimuth set out 9 potential scenario drivers for Manston. However, it is not clear how these scenario drivers have been taken forward to the forecasts set out in Volume III, which do not set different potential scenarios for growth. If we take each of these drivers in turn:

1. *The UK's position in Europe* – Azimuth appear to assume that there will be an opportunity for multi-hop freighter services from Manston but it is far from clear that the traffic rights for such services will continue to be available post-Brexit.
2. *Changes to fuel prices* – in the face of the decline in the value of sterling, these are more likely to work against the operation of more freighter aircraft.
3. *The availability of more efficient aircraft* – the introduction of B787 and A350 aircraft will increase bellyhold capacity rather than reduce the capacity.
4. *Onshoring of manufacturing in the UK* – it is not clear how this is relevant given Kent does not have a strong manufacturing base.
5. *Changes to logistics and transport systems in Kent* – this is a circular argument as it relies on the re-opening of Manston driving a step change in the logistics and transport sector in Kent.

6. *Dramatic changes to economic performance* – it is noted that these are not factored into the forecasts but to the extent that there are Brexit effects on the economy, these would reduce trade and demand for air freight.

7. *Manston becomes a major integrator/forwarder base* -

8. *Manston becomes an Amazon base* -

9. *Manston becomes a hub for drone activity* –

for the reasons noted above, all three of these seem highly unlikely and are, at best, pure speculation with no evidence base whatsoever.

2.70 Section 7 sets out the conclusions from Volume II. According to Azimuth (paragraph 7.1.1), the key issues that are seen to favour Manston are:

- Lack of available slots at other South East airports;
- Bumping of freight from passenger aircraft;
- Security issues particularly with outsized cargo;
- Speed of turnaround.

However, our analysis of the factors would suggest that, other than perhaps the last two factors, there are few factors which would favour Manston and, in any event, these could be replicated by other airports closer to the main UK distribution centres, such as Doncaster Sheffield Airport, if these were deciding factors in the market.

2.71 Based on their analysis, Azimuth then set out (at paragraph 7.1.2), the markets which it believes that Manston could attract:

- Parcels and packages through an integrator;
- Perishables including fruit, vegetables, flowers, fish, and shellfish;
- Outsized freight;
- Formula One and luxury cars;
- Live animals;
- Time sensitive items such as aircraft [parts] and the oil and gas industry;
- Humanitarian and military flights.

In addition, some passenger operations along with a number of ancillary activities such as recycling, MRO[34] etc. are postulated for Manston.

[34] Maintenance, repair and overhaul of aircraft

2.72 Whilst, except for integrator operations, they are plausible markets for some potential operations from Manston, Azimuth make no assessment of the potential quantum of local demand as a basis for assessing how big a market there is. Whilst seeking to discredit analytical methods for projecting future demand at Manston, at the same time, Azimuth rely heavily on estimates made by us and using such methods that suggest there would be excess demand in the London system at 2050 if there is no new runway at all. Fundamentally, Azimuth make no assessment of the viability of what might be on offer or address any concerns as to why such operations have not secured a viable future for the Airport previously.

2.73 The key conclusion drawn by Azimuth is that *"This report demonstrates the potential demand for Manston Airport, indicating its viability and clearly showing that Manston Airport is a valuable local, regional and national asset, providing airport infrastructure badly needed by the UK."* (Paragraph 7.0.1) There is, quite frankly, no factual basis for Azimuth to make this claim. Azimuth claim that the capacity is *"badly needed by UK"* but this is linked to erroneous use of the economic costs of there being no further runway capacity in the UK (see paragraph 2.6 of this report) and a lack of understanding of the air freight market.

2.74 In summary, Azimuth's insistence that Manston's past market performance is not a relevant consideration in understanding how it might perform in the future is both erroneous and contradictory to the evidence put forward to support the qualitative market forecasting approach. The interview findings presented are clearly focussed towards operators that have used Manston in the past and would be pleased to be able to use it again but the evidence presented does not suggest that operators would do more than reinstate past operations. This did not result in an airport that was viable and certainly did not result in annual cargo air transport movements predicted by Azimuth. In our view, and having regard to the evidence, it is unlikely that circumstances have changed so dramatically in the intervening period since the Airport was last operational that there is likely to have been a fundamental change in its ability to capture market share. Its previous cargo performance remains the best starting point from which to consider its future.

2.75 In defence of their position, Azimuth cite lack of investment by the previous owners as being a key cause of Manston's inability to fulfil its potential previously but this is not borne out by the interview responses as the quality of service was noted as good. Fundamentally, the failure to consider the drivers of the Airport's previous performance effectively is a key error which infects the subsequent forecasts presented. The limited size of the market is perhaps the best explanation as to why there was not still further investment in developing the facilities as the operation was fundamentally not viable and it would have been imprudent to invest further.

Forecasting (Volume III)

2.76 The forecasts set out in Volume III draw extensively on the analysis in Volumes I and II. Although stated to be derived on a 'bottom up' basis (Executive Summary Page 1) and claimed to be more conservative than top down, econometrically driven, projections, reliance is still placed, at paragraph 1.1.1, on our quantitative work for TfL/FTA to justify/verify the overall quantum of movements projected, stating *"Rather than merely extrapolating past activity, studies that have focused on the 'lost' or suppressed demand include York Aviation's work (2015, p. 19)."* This work was itself fundamentally top down, based on examining past activity and its implications for the future. Azimuth rely on this as, effectively, the only quantitative evidence presented of a possible level of future demand which might be available to Manston. However, for the reasons set out earlier, Azimuth has incorrectly interpreted our findings and their use of our data to support RSP's case cannot be relied on.

2.77 Paragraph 2.1.2 again suggests that the literature review undertaken showed that *"a qualitative approach was the most appropriate method through which to gather data on the potential demand for an individual airport"*. Whilst we agree that freight forecasting is difficult, as Azimuth themselves note, at paragraph 2.1.4, qualitative forecasts still need to be based on *"market data"* and, at paragraph 2.1.6, Azimuth go on to refer to the anecdotal information collected in the interviews as primary market data. Overall, this anecdotal evidence does not provide a basis for the development of a forecast of future usage nor for the presentation of a business case of the proposed development.

2.78 To further justify the approach to forecasting, Azimuth claim that the Airports Commission recommended the use of a Delphic approach. This is not strictly true as what the Airports Commission actually said was:

> *"In cases where there is limited or no data available, judgement based forecasting, using techniques such as the 'Delphi Method' is applied. This approach involves experts in the field considering historical patterns to predict future trends and is often used in conjunction with both naïve and causal models to compare forecast trends. The Delphi method is considered especially useful for long term forecasting (20-30 years) and is effective in drawing on existing knowledge to identify areas of agreement and disagreement in forming the forecast. However, for complex themes the Delphi Method is not always considered appropriate as there is no way of testing different outcomes e.g. through scenario testing."*[35]

2.79 First of all, the Delphi Method involves a number of independent experts considering historic patterns of data and forming a judgement based forecast. Results are shared and refined until a consensus is reached amongst experts. This is not the same as a single judgemental based forecast as Azimuth have presented, based not on historic data but some unquantified estimate of 'lost' demand. In any event, we would question the appropriateness of this methodology, for the reasons that the Airports Commission cite, namely the importance of scenario testing in the context of a forecast to be used for a planning application, particularly one where the applicant is purporting to promote a NSIP under Section 23 of the Planning Act 2008 (as amended) and seeking to demonstrate that there is a compelling case in the public interest for the compulsory acquisition of the Airport site.

[35] Airports Commission, Discussion Paper 01, *Aviation Demand Forecasting*, February 2013, Paragraph 2.8

Freight Forecasts

Short to Medium Term (10 years)

2.80 Azimuth place reliance on both the overspill argument (paragraph 2.2.2) and that there will be a reversal away from the existing preference for bellyhold for most types of air freight, despite the overwhelming evidence that this is likely to remain the case in future due to the lower freight rates available. Azimuth's claim is not supported by the facts, current market trends or by other industry observers including the DfT and Airbus.

2.81 Furthermore, Azimuth appear to assume that, to the extent there is overspill seeking freighter capacity as an alternative, that Manston would be the only solution. This is not the case given available capacity for freighters at airports such as East Midlands (particularly well placed for the distribution of goods across the UK), Stansted and Doncaster Sheffield. These airports are already established and operational and, therefore, well placed to deal with any such requirements in the short to medium term using their existing infrastructure and without the need for any compulsory acquisition of land.

2.82 At paragraphs 2.2.6 and 2.2.7, Azimuth set out the methodology they have used for deriving freight movements and tonnage for Manston. In essence, these movement forecasts are entirely based on claimed confidential discussions with airlines, airports and others involved in the industry, which are then converted to freight tonnage based on the capacity of each aircraft and assumed load factors. These discussions would appear to be different from the list of interviewees reported in Volume II, which included only 1 airline (unlikely itself to relocate its single European operation to Manston) and no other airports. Although it is claimed (paragraph 2.2.9) that switching costs have been taken into account, there is no explanation as to how these costs have been factored into the assessment of what operations Manston might attract. It is likely that RSP would need to incentivise such a switch of activity and this would impact on the overall viability of the Airport, particularly in the early years. A further consequential issue arising from this is the economic cost of displacement of activity, which we discuss further in Section 5, as this needs to be accounted for in economic assessment of RSP's proposal.

2.83 A vague list of potential operations is set out at paragraph 3.2.3, albeit with specific assumptions then stated about the loadings on each. However, the basic information regarding the likely annual frequency of each operation is not given, which is essential to enable an understanding of the likelihood of such operations using Manston in the context of the UK air cargo market as a whole and taking into account ongoing operations at other airports. Paragraph 3.2.3 appears to set out simply a list of generic airlines that might offer services if Manston is re-opened. It provides no insight into whether the demand to fill those services will be there or whether the services could be operated viably by the airlines concerned and at what weekly or annual frequency. This is simply not an appropriate or robust basis for a forecast.

2.84 Whilst accepting that there may be confidentiality concerns in revealing the specific plans of any individual airline, this is all the more reason why there needs to be some underpinning analysis of the potential scale and viability of each specific market identified in the forecast in order to provide some basis for asserting that any of the airlines might operate to the destinations postulated. As presented, the aircraft movements and the consequential tonnage forecasts are entirely hypothetical with no obvious linkage back to any of the evidence presented in the earlier volumes. This is not acceptable given the implications and importance of any proposed application for a DCO and the requirement that a compelling case be demonstrated for the purpose of compulsory acquisition. At the very least, there is a lack of transparency in the approach that needs to be explained so that consultees can understand the forecast and in order to determine whether or not the proposed DCO application falls within Section 23 of the Planning Act 2008 (as amended).

2.85 To illustrate the lack of credibility of the forecasts, Table 1 shows for Year 2 (the first operational year), a throughput of nearly 100,000 tonnes. This would make Manston the 5th largest freight airport in the UK in its first year after re-opening (compared to 2016 actual throughput at the other airports). This would place it close to the scale of freight operations at Manchester Airport, including bellyhold freight. It would make Manston the 3rd busiest airport in the UK in terms of tonnage carried on dedicated freighter aircraft. This is simply not a credible proposition. It is simply at odds with the verifiable evidence and contrary to all experience there is of operations at Manston. If there is a short term market of that scale available for Manston, why did it historically not exceed 43,000 tonnes (2003)? Without full explanation of the scale of each of the markets and a reasoned justification for the number of movements assumed for each of the operations identified at paragraph 3.2.3, the forecasts as presented cannot be considered robust and substantial further evidence is required to validate the basis of the RSP DCO proposal.

Long Term (10-20 years)

2.86 As noted earlier in this section, the long term forecasts wrongly apply a 4% per annum growth rate as a basis for deriving the longer term freighter aircraft movement forecasts for Manston. To reiterate, this is inappropriate and unrealistic given that it is based on forecasts by Airbus for freight tonne kilometres at the global level[36]. Even if the short term forecasts were credible, which they are not, their extrapolation is on an unrealistic basis. At most, any extrapolation should more realistically have been based on the 2013 DfT freighter movement growth rate of 0.4% per annum and the latest DfT estimates[37] suggest that even this may be too high.

2.87 Table 6 then sets out the infrastructure requirements for cargo, which are based entirely on the forecasts put forward. However, even then, we are not told how these infrastructure requirements have been derived in terms of the operating pattern over the day, turnaround times, the number of night movements and other key assumptions for each aircraft type stated or indeed how they relate to the capability of Manston Airport with its existing infrastructure. Such information is critical to validate the infrastructure required (if indeed any is required given our assessment of the capability of Manston Airport), as well as to carry out the assessment of the environmental impacts.

[36] Now reduced to 3.8% in the latest Airbus forecasts.
[37] Department for Transport, UK Aviation Forecasts, October 2017, paragraph 2.56.

Passenger Forecasts

2.88 Although not the main focus of this summary report, we note that the passenger forecasts, set out by Azimuth in Section 2.4, suffer from many of the same problems as the freight forecasts. They appear to be based almost entirely on supposition and inferences that cannot be relied upon. There appears to be no consideration of what is known about market sizes, nature or previous performance, nor a recognition of the extent to which growth will need to be incentivised through discounting of airport charges and marketing support payments. Similarly to the freight forecasts, and for reasons that are not given, Boeing global growth rates appear to be used by Azimuth for passenger operations beyond year 10 rather than the UK specific forecasts produced by the DfT[38], which are substantially lower. This, once again, is a substantial overstatement of the potential for growth.

Overall Conclusions on Forecasts

2.89 Azimuth's entire analysis of the air freight market is focussed on the existence of a theoretical opportunity based on estimates of spill from London in the event of the third runway at Heathrow not being built or being delayed, an unsupported hypothesis that there is a trend away from bellyhold freight, and based on a small sample of interviews with largely marginal players in the UK air freight sector and/or local interests.

2.90 Azimuth's reports do not at any point provide any substantive evidence or analysis as to whether Manston Airport can effectively, viably and sustainably compete in that market. Azimuth's reports do not explain how Manston Airport will be able to price effectively against the bellyhold rates offered by growing established and operational UK regional airports or the continental hubs. Azimuth's reports do not explain how Manston Airport will compete against the range of destinations offered by the long haul passenger networks of the continental hubs or the much greater freighter network offers of East Midlands or Stansted airports. We agree that there may be a niche market for Manston, just as there was previously, and that this market will probably grow in the future in line with the pure freighter market overall (noting that the DfT does not see growth in this market to 2050), but we cannot see how Manston will provide a sufficiently attractive alternative in a broader freight market to attract a market share sufficiently large as to reach the volume and movement numbers envisaged by Azimuth and required to justify RSP's proposals to be considered under the Planning Act 2008 (as amended). Indeed, if we look at past history, it seems highly unlikely that commercially viable operations for the Airport would be attainable for the foreseeable future.

2.91 In overall terms, the forecasts presented by Azimuth at Table 1 of Volume III are simply not credible and do not provide a robust basis for promoting a DCO. We present analytically derived cargo movement forecasts in Section 3 of this report to evidence and support this conclusion that any future projected use of Manston Airport would be significantly lower than that asserted by RSP.

[38] Department for Transport, UK Aviation Forecasts 2013 and 2017.

2.92 In terms of Azimuth's key questions, as set out at paragraph 2.3 at the start of this section, the first two tests may well be met in terms of the need for more airport capacity in the South East of England. That is why the draft Airports National Policy Statement is promoting the development of a third runway at Heathrow as a solution in the period up to 2030. The first two questions are, therefore, irrelevant to RSP's proposals. However, in relation to the third test, the key point is that for Manston to be a long term solution to the UK's capacity problems, it must be a sustainable, commercial proposition, capable of attracting airlines, passengers and shippers to use it. Azimuth's analysis ignores the history at Manston and does not provide any evidence to conclude that any future projected use of Manston Airport would require an increase in the capability of the Airport.

2.93 Indeed, whilst we have provided in this report our assessment of the capability of Manston Airport (Section 4), we note that nowhere has RSP done the same exercise. The failure of RSP to provide their own evidence of the capability of Manston Airport and the amount by which the proposals would increase that capability by is a major omission in RSP's consultation material. Rather, the only information that they present is a forecast of future freight movement demand, which has no credibility as explained in this report. This failure means that, in our opinion, the requirements in Section 23 of the Planning Act 2008 (as amended) have not been satisfied. In essence, we would have expected RSP to be able to show:

- the capability of Manston Airport of providing air cargo transport services;
- the amount by which RSP is proposing to increase that capability by and thus the "new" capability; and
- a credible forecast for why that 'new' capability is required.

None of this information is provided by RSP.

3 FREIGHT FORECASTS

Introduction

3.1 In this section, we present our view of demand in the UK air cargo market at present and consider how this market will develop in the future, setting out a number of potential cargo forecast scenarios for Manston Airport specifically over the period to 2039/40 (RSP's assessment year). This is a more robust approach than the qualitative approach adopted by Azimuth and builds on the approach adopted in our work for TfL and the FTA, by updating this work and assessing Manston's potential share of the market. This is the correct way to use our earlier work to inform an assessment of the potential at Manston.

3.2 The analysis presented here builds on our previous work but supersedes it and extends it in terms of:

- considering changes in the market and circumstances since the time of the previous research, notably the decision to move forward with a third runway at Heathrow, the increasing long haul passenger operations at regional airports and the continued commitment from Stansted Airport to the freight market through its future plans;
- examining the demand and capacity position not only in London but across the UK as a whole;
- analysing potential cargo capacity growth in more detail using Airports Commission traffic forecast data, not available at the time of our previous work;
- more explicitly considering the nature of air cargo that might be affected by any form of constraint within the London airport system or in the UK;
- providing some indication of how cargo demand is spread geographically in the UK to aid consideration of how it might be served in the future.

3.3 Our previous work did not consider in detail the role that might be played by Manston Airport or indeed other UK regional airports. It considered, in broad terms, the effect of a constrained London system capacity on freight demand and how this demand might be met within the confines of the capacity position at the time, noting particularly the role that might be played by the major continental hub airports, given the price advantages that they might offer through the availability of bellyhold capacity.

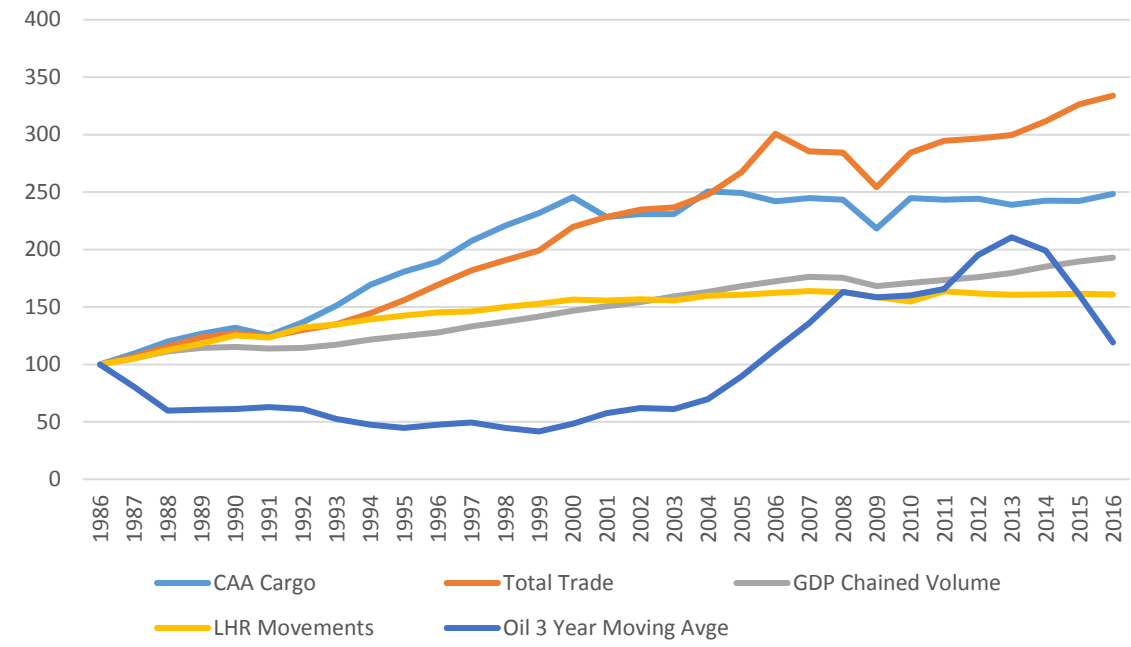
3.4 In this report, we now consider specifically the potential role for Manston by way of a scenario analysis that draws on the analysis of the overall market and the past performance of the Airport. The use of scenarios rather than a single forecast is intended to show a range of possible outcomes for Manston, allied to an assessment of the likelihood that the scenarios might be achieved in a manner which properly reflects the uncertainties identified in air freight forecasts.

Historic Performance of the UK Air Cargo Market

3.5 Our assessment of the quantum of air freight demand in the UK is fundamentally driven by analysis of the past performance of UK air cargo against a range of key economic and market indicators, notably UK trade in goods, GDP, oil price and ATM numbers at Heathrow. **Figure 3.1** shows the indices for these various metrics over time (with each indicator set to 100 in 1986).

3.6 This analysis reveals a number of interesting patterns. Until around 2000, UK air cargo was strongly related to UK trade in goods, with what would appear to be some stimulus provided by falling oil prices that would have made the cost of air cargo relatively more competitive with other cheaper modes. However, in around 2000, the market changed and this relationship appears to break. UK trade in goods continues to grow but growth in air cargo essentially stalls.

Figure 3.1: UK Air Cargo and Economic Metrics (Index: 1986 = 100)



Source: CAA Statistics, ONS

3.7 It is, therefore, helpful to look at why this might have happened. There are two main factors that need to be considered. The first is the oil price, which, through much of the late 80s and 90s, had been on a relatively benign downward trend. However, in around 2000, it started to rise again, accelerating through the mid-2000s and peaking in around 2013. The price of fuel is a key factor in the attractiveness of air cargo compared to other modes, particularly for pure freighter services, where the full direct operating costs of the flight must be borne by the cargo being shipped (as opposed to bellyhold freight where direct operating costs are largely covered by passenger operations, with cargo revenue essentially treated as a marginal benefit). This change in oil prices slowed demand for air freight globally and, in particular, drove users towards bellyhold rather than freighter options[39]. We set out the effect in the UK further below.

[39] Department for Transport, *UK Aviation Forecasts 2013*, paragraph 3.48, Steer Davies Gleave for Department for Transport, *Air Freight: Economic Drivers and Environmental Impacts*, 2010, Executive Summary.

3.8 The second point to note is the relationship to Heathrow ATMs. Up until around 2000, Heathrow was still growing its annual ATMs, which ultimately was driving the availability of bellyhold capacity in the UK air freight market. However, with runway capacity constraints biting, from around 2000, the rates of growth in ATMs at Heathrow initially slowed dramatically then stalled as it reached its consented limit.

3.9 When these two factors are combined, it is possible to understand what has happened in the UK air cargo market. It also has two key implications for considering the growth of the air cargo market moving forward and specifically in relation to Manston:

- ✈ it is reasonable to assume that the fundamental link between economic or trade growth and air cargo still exists and that, ultimately, with economic growth and increasing trade, demand for air cargo will grow. However, with oil prices remaining higher than seen in the past, it is likely that the growth path will be lower. We have assumed that it is likely to be more in line with the growth in real GDP over time;
- ✈ the capacity position at Heathrow is clearly a constraining issue for UK air freight demand but it is noticeable that this constraint has not resulted in significant gains being made by other airports in the London system. This suggests that, while there is probably a degree of constrained demand in the London system at present, this is affecting bellyhold air cargo and that is not translating through into substantially greater freighter growth at, for instance, Stansted or East Midlands. We examine this issue further below.

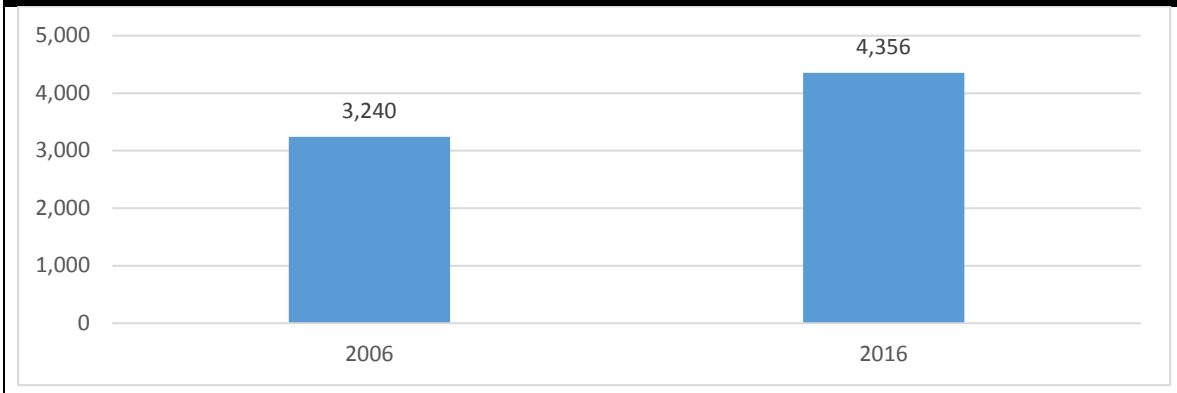
3.10 This is particularly important as it suggests that the market for bellyhold freight is different from that for pure freighter traffic. This is a function of price and urgency in relation to general air freight, as opposed to either express freight or niche products. For express freight or niche products, shippers are prepared to pay a premium which allows the use of freighters because either speed is of the essence or the destination is hard to reach or the cargo is difficult to handle in some way. For general air freight, these drivers are not the same. Accepting that all air cargo is to some degree sensitive to speed of delivery, it seems that what is likely to be being pushed from bellyhold capacity, in a capacity constrained environment, is less time sensitive and shippers' willingness to pay is lower. Hence, in the current market with relatively high fuel prices, freighter options are not an adequate substitute.

3.11 This is very important from the perspective of considering the potential role of Manston. It suggests that it will be very difficult for the Airport to compete effectively for any traffic displaced as a result of constraints in the London market as it cannot and will not be able to provide the price, frequency and breadth of destination advantages that bellyhold freight can offer. The airports competing for cargo traffic being pushed away from Heathrow, now and in the future, are the large UK regional airports with growing long haul passenger networks and the near European global hub airports, which offer the closest substitutes to Heathrow and are within easy trucking time of, certainly, the London and South East market. In any event, bellyhold capacity at Heathrow is expected to increase substantially once the third runway becomes operational so driving down the competitive prices in the market, making it even more difficult for freighters to compete. Even if there are delays to the provision of additional runway capacity at Heathrow, we would not expect a change to the pattern of behaviours observed since 2000, namely that cargo displaced from Heathrow will be trucked to other airports with available competitively prices bellyhold capacity.

3.12 Whilst the volume of air cargo flown to/from the UK's airports over the past 15 years has remained relatively static, there have been considerable changes in the way that demand has been serviced, which again reflect the drivers and constraints on demand described above. Essentially, the market has been consolidating to a small number of airports and bellyhold cargo has become more dominant.

3.13 The Herfindahl-Hirschman index (HHI) is a commonly accepted measure of market concentration[40]. **Figure 3.2** shows the HHI for the UK air cargo market in 2006 and in 2016. The change in the concentration level in the market over the last 10 years has been marked. The HHI for the UK air cargo market has increased by around 34%. The consolidation in the UK air cargo market in the last 10 years has resulted in an increase in the HHI of nearly 1,100. This continued concentration in the market can also be seen by examining the drivers of change in UK air cargo over the last decade. **Figure 3.3** sets out a bridge diagram between 2006 and 2016 showing the change in freight handled via bellyhold and pure freighter at major UK freight airports.

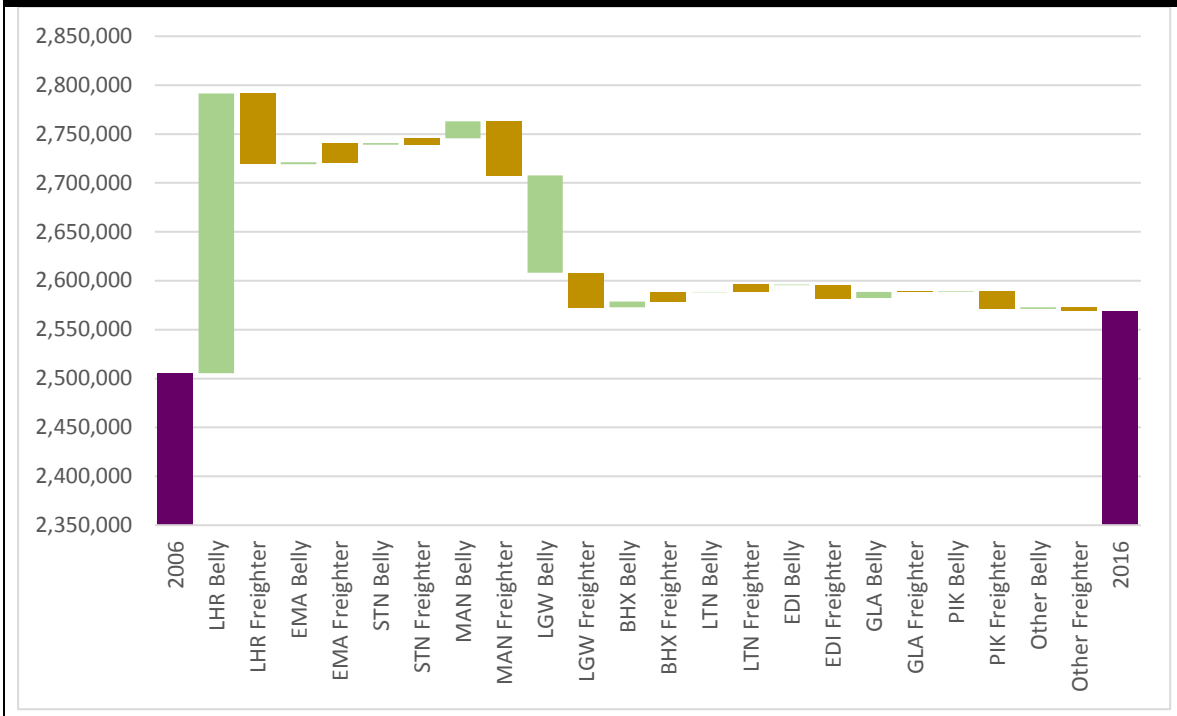
Figure 3.2: UK Air Cargo Market Herfindahl-Hirschman Index of Market Concentration



Source: York Aviation analysis of CAA Statistics

[40] It is calculated by squaring the market share of each firm competing in a market, and then summing the resulting numbers, and can range from close to zero to 10,000. The closer a market is to being a monopoly, the higher the market's concentration (and the lower its competition). If, for example, there were only one firm in an industry, that firm would have 100% market share, and the HHI would equal 10,000, indicating a monopoly. If there were thousands of firms competing, each would have nearly 0% market share, and the HHI would be close to zero, indicating nearly perfect competition.

Figure 3.3: Drivers of Change in the UK Air Cargo Market – 2006 to 2016



Source: York Aviation analysis of CAA Statistics

3.14 There are a number of key points to note:

- the market has continued to consolidate into Heathrow through increased bellyhold capacity due to the increasing focus on long haul destinations. These gains have been offset by significant erosion of freighter capacity;
- elsewhere in London, Gatwick has seen both bellyhold and freighter capacity significantly eroded as that airport has become more capacity constrained and it has focussed increasingly on short haul low fare passenger services, albeit this trend is starting to reverse as more long haul operations come on stream. Stansted and Luton have seen some growth in freighter tonnage but this does not come close to offsetting what has been lost from elsewhere with Stansted heavily focussed on the integrator and express services market;
- East Midlands, with major DHL and UPS bases, has been the only airport that has seen significant growth in pure freighter traffic, but again this has not offset losses in freighter traffic from elsewhere, suggesting that, for more general air cargo, bellyhold capacity is fundamentally more attractive, even potentially if this involves trucking to distant airports;
- this is reinforced by what has happened at Manchester, which has seen growth in its bellyhold market, relating to its growing long haul network, but with its freighter traffic falling away. The growth in bellyhold traffic at Birmingham is also probably reflective of its growing long haul passenger network;
- in general, there has been a noticeable switch towards the use of bellyhold capacity. Since 2006, pure freighter cargo's share of the UK market has dropped from 37% to 30%, while actual freighter tonnage has dropped by 17%;

- the performance of Prestwick (PIK) provides perhaps the most obvious direct comparator to Manston, with a similar sized freighter operation in 2006 to Manston at its peak. Freighter traffic at that airport has dropped by 64% since 2006. In the meantime, Prestwick was nationalised to maintain operations as it had been heavily loss making for a considerable period of time.

3.15 The implications for Manston are clear. Bellyhold is the preferred option for a significant proportion of the air cargo market and this preference has intensified in recent years. The only airports experiencing freighter growth are those with significant integrator activity. This suggests that Manston's likely niche freighter offer will struggle to penetrate the market. There has been consolidation into larger airports, which again suggests that Manston will struggle to establish market presence. Finally, the experience of Prestwick, its nearest comparator in many ways, is not encouraging for Manston. Prestwick's well established pure freighter operation has been heavily eroded and the airport has had to be nationalised to maintain its operation due to inherent lack of commercial viability.

The Geographic Distribution of UK Air Cargo Demand

3.16 At the outset, it should be made clear that there is very limited data on where air cargo originates from or is destined for within the UK. However, some indications are available from other research, notably recent work by MDS Transmodal, in conjunction with York Aviation, for TfN in relation to its International Connectivity Strategy[41]. MDS analysed a series of datasets on air freight and road haulage and estimated that around 14% of UK air freight demand originates in or is destined for the North of England. We also know that air cargo is often trucked a considerable distance before being loaded on to aircraft.

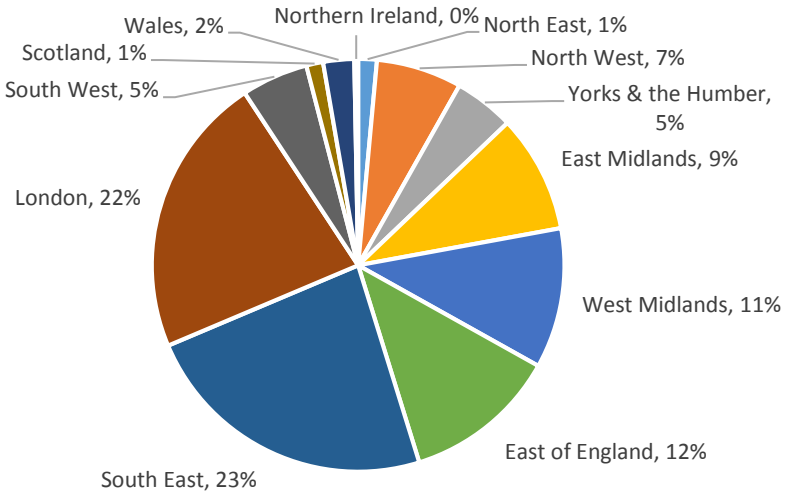
3.17 We have, therefore, developed a simple gravity model that distributes air cargo regionally across the UK based on:

- for exports, the distribution of manufacturing employment in the UK. This is intended to reflect that air cargo exports are likely to be primarily manufactured goods;
- for imports, the distribution of UK population. This is intended to reflect that imports are, in many cases, destined either for consumers directly or retailers. This is clearly a simplification but we believe a sensible one given the data available;
- a relatively low distance decay factor of 1.5, reflecting the relative insensitivity of air freight to trucking times. This has, in part, been calibrated based on observed distance decay factors using data available in the TfN work. This is generic and we have no reason to believe that the balance between trucking costs and the use of air freight would vary across the UK.

3.18 The resulting distribution of air cargo demand is shown in **Figure 3.4**. While there is a heavy concentration of demand in the Greater South East, there is significant demand located across the country. The issue for Manston is that it is poorly placed geographically to serve this demand, even for London and the South East, particularly once the location of distribution centres for import freight, which cluster around the M1 and M6, is taken into account.

[41] Transport for the North, *International Connectivity Evidence Report*, York Aviation/MDS Transmodal July 2016, Appendix C.

Figure 3.4: Modelled Regional Distribution of UK Air Cargo Demand



Source: York Aviation analysis of CAA Statistics, ONS and Google Maps Data

3.19 In the event of air cargo capacity constraints in London, this demand is likely to look initially for cargo capacity closer to home at the major regional airports, particularly those that are developing broader long haul passenger networks. Even if freighter aircraft are required for this demand, there are likely to be substantially better options than Manston. Not least the national freight hub at East Midlands, with its central location in the UK and excellent multimodal connectivity to a wide geographic area.

Future Demand for Air Cargo in the UK

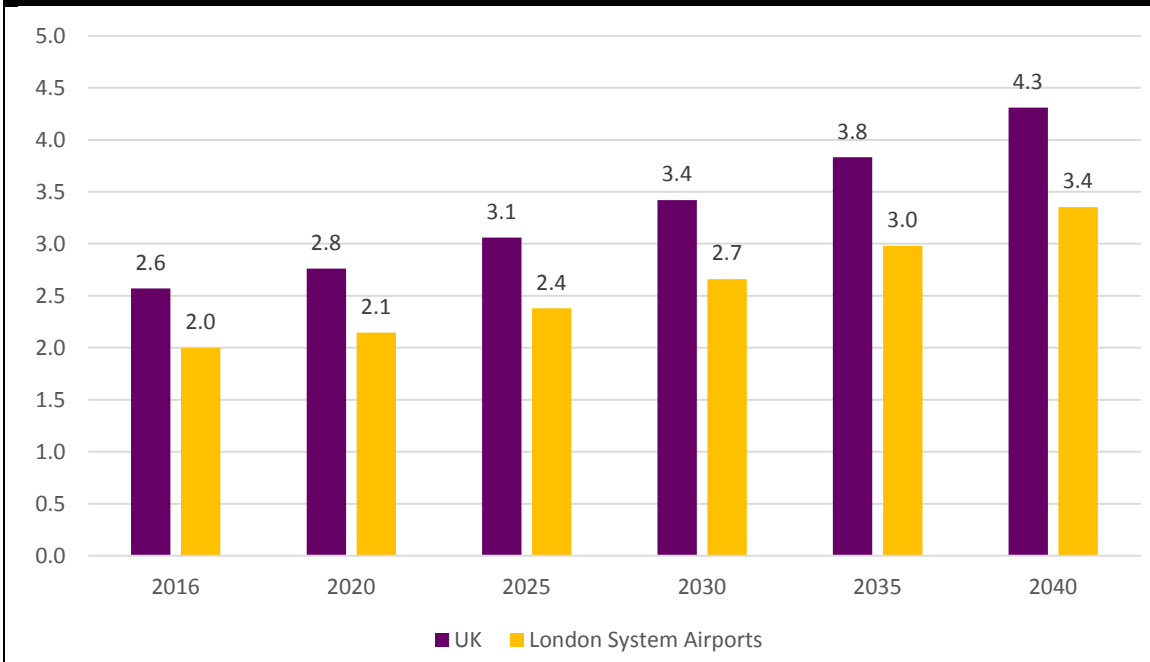
3.20 The initial step in producing our cargo forecasts for Manston is to consider the likely size of the London system and UK air cargo markets in the period to 2040. This is an unconstrained forecast and does not, at this stage, consider whether capacity will be available to deliver this demand.

3.21 In line with our analysis above and consistent with our 2015 report for the FTA, we adopted a relatively simple approach, growing existing air cargo demand forward in line with GDP projections for the UK economy. The GDP forecasts used are the latest forecasts produced by the Office for Budgetary Responsibility at the time of writing. These are taken from:

- Economic & Fiscal Outlook (March 2017), which provides short to medium term forecasts;
- Fiscal Sustainability Report (January 2017), which provides long term forecasts for the UK economy.

3.22 These forecasts suggest average real growth in UK GDP of around 2.2% over the period to 2040. The resulting projections of air cargo demand at the London system airports and across the UK are set out in **Figure 3.5**. This analysis sees total UK air cargo demand reach around 4.3 million tonnes by 2040 and demand in the London system[42] of around 3.4 million tonnes by 2040. At this stage, we have assumed that the split of tonnage between the London airports and the rest of the UK remains as currently, driven by the large concentration of freight forwarders in the vicinity of Heathrow in the light of its major air freight hub role. This may well overstate the scale of demand in London given increasing long haul networks at regional airports.

Figure 3.5: Air Cargo Tonnage Forecasts (million tonnes)



Source: York Aviation

Air Cargo Capacity at UK Airports

3.23 The second stage in our assessment is to consider the extent to which the demand identified above could be met by UK airports and the London system airports. This is, again, in line with our approach taken in our work for the FTA in 2015. However, the analysis undertaken for this research is more detailed, uses more up to date and detailed information on future passenger ATM forecasts and, specifically, considers Stansted's more recent statements in relation to continuing growth in the cargo market to around 400,000 tonnes[43] and removal of the existing 35 mppa passenger planning cap and extension to 43 mppa[44]. Had we been specifically asked, we would have advised Azimuth of the need to carry out such an assessment so as to understand the implications of our earlier work for TfL and the FTA.

[42] Based on the London airports current share of the national market.
[43] Sustainable Development Plan – Stansted Airport (March 2015).
[44] Press Release – Stansted Airport (17 October 2017).

3.24 In order to estimate the likely bellyhold capacity that will be available through the period to 2040, we have produced projections of passenger ATM demand for each of the top 10 freight airports in the UK in 2016, along with a residual forecast for Other UK airports. For Heathrow, Gatwick and Manchester, these forecasts have been split into domestic, EU and non-EU ATMs. The future years for each airport have been based on the ATM forecasts produced by the Airports Commission for which detailed data files have been released[45]. Years prior to the opening of Runway 3 at Heathrow, uses the Base ATMs scenario, while post opening uses the HAL ATMs scenario, which reflects the third runway.

3.25 The existing freight loads per passenger ATM for each airport have been estimated using CAA Statistics. These average loads have then increased by 1.0% per annum tapering to 0.5% per annum for Heathrow and 1.6% per annum tapering to 1.0% per annum for other airports. This reflects trends in average loads identified from CAA Statistics over the last five years.

3.26 In relation to pure freighter capacity, we have, in the first instance, considered what might be termed a business as usual view of capacity moving forward. This considers the likely number of freighter ATMs that might be flown rather than considering the actual movement capacity of individual airports, which may be greater. This is, ultimately, a more stringent view of capacity moving forward and is more likely to lead to a conclusion that there is a lack of freighter capacity to meet any demand than simply considering what any given airport could actually handle, especially given that Stansted is some distance from its freighter ATM cap and East Midlands is not close to any form of ATM limit. To enable this analysis, we have grown freighter ATMs at each airport by 0.4% per annum, in line with the expected growth rate from the DfT's Aviation Forecasts 2013[46]. However, we note that the most recent DfT forecasts[47] suggest that no growth in freighter movements to or from the UK is now expected. Hence, our use of the previous DfT growth rate may overstate the market for pure freighter operations but we have retained this approach so as not to understate the extent of any potential overspill market for Manston.

3.27 Once again, average loads per freighter ATM have been estimated for each airport from CAA Statistics. As with bellyhold cargo per ATM, there has been an upward trend in average loads on freighters in recent years of around 1.1% per annum (York Aviation analysis of CAA Statistics). This is assumed to continue over the period.

3.28 In addition to this business as usual view, we have also taken a view as to the likely total tonnage capacity over time of the two largest freighter airports in the UK, East Midlands and Stansted, based on those airports' development plans:

- the Stansted Sustainable Development Plan talks about developing cargo capacity to handle around 400,000 tonnes of cargo. We have assumed that current capacity is around 300,000 tonnes and that this grows steadily over time to 400,000 tonnes by 2040;

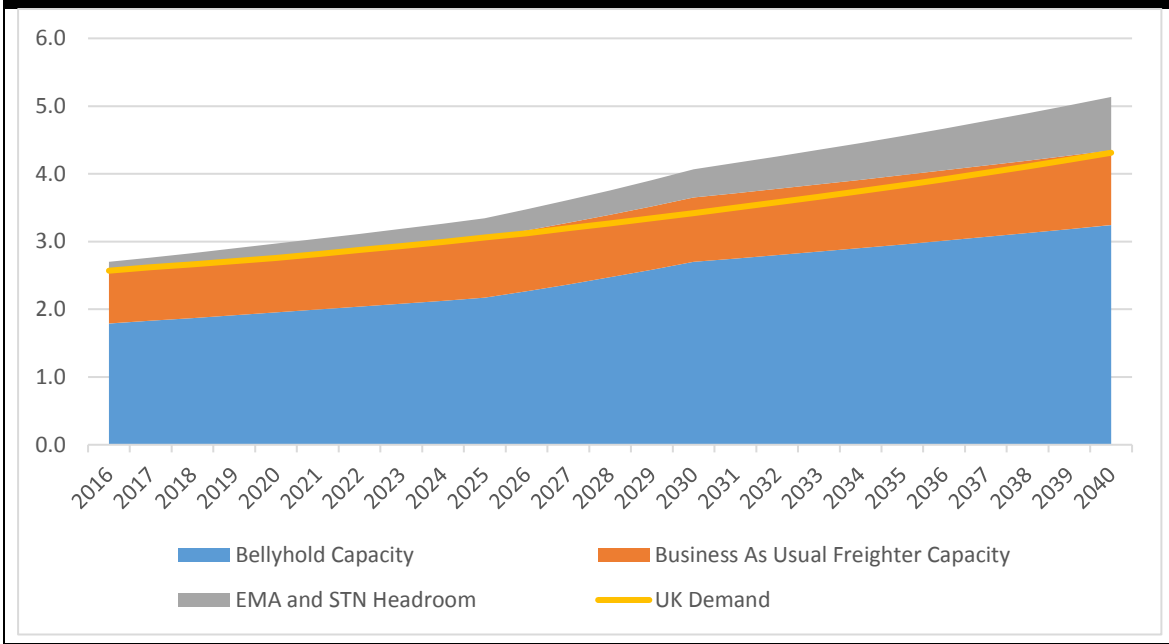
[45] https://www.gov.uk/government/publications/airports-commission-documents-and-data.
[46] The exception to this is the small number of freighter movements at Heathrow, which are not allowed to grow until the Third Runway is opened.
[47] Department for Transport, *UK Aviation Forecasts*, October 2017, paragraph 2.56.

- the East Midlands Sustainable Development Plan describes its runway capacity as able to support a 10 million passenger and 1.2 million tonne cargo airport[48]. We have assumed that this capacity could be developed over time to 2040 from a base capacity of 400,000 tonnes.

3.29 This assessment of the cargo capacity headroom at Stansted and East Midlands helps provide a view of how any excess demand identified could be handled by freighters in the UK if this were the response of the market to any shortage of bellyhold capacity, although it is important to note that we do not believe this would be the primary market response given the lower cost of bellyhold alternatives. It should, however, be recognised that the speed of build-up of this headroom is to a significant degree a matter of conjecture. There will be infrastructure developments required to enable capacity but, if demand were there, it is likely that these could be brought forward as they would be incremental expansion of existing facilities which could be phased in to meet demand more easily and cheaply than the substantial cost involved in re-opening Manston.

3.30 The resulting estimates for air cargo capacity for the UK as a whole and the London system over time are shown in **Figures 3.6** and **3.7**.

Figure 3.6: UK Air Cargo Capacity

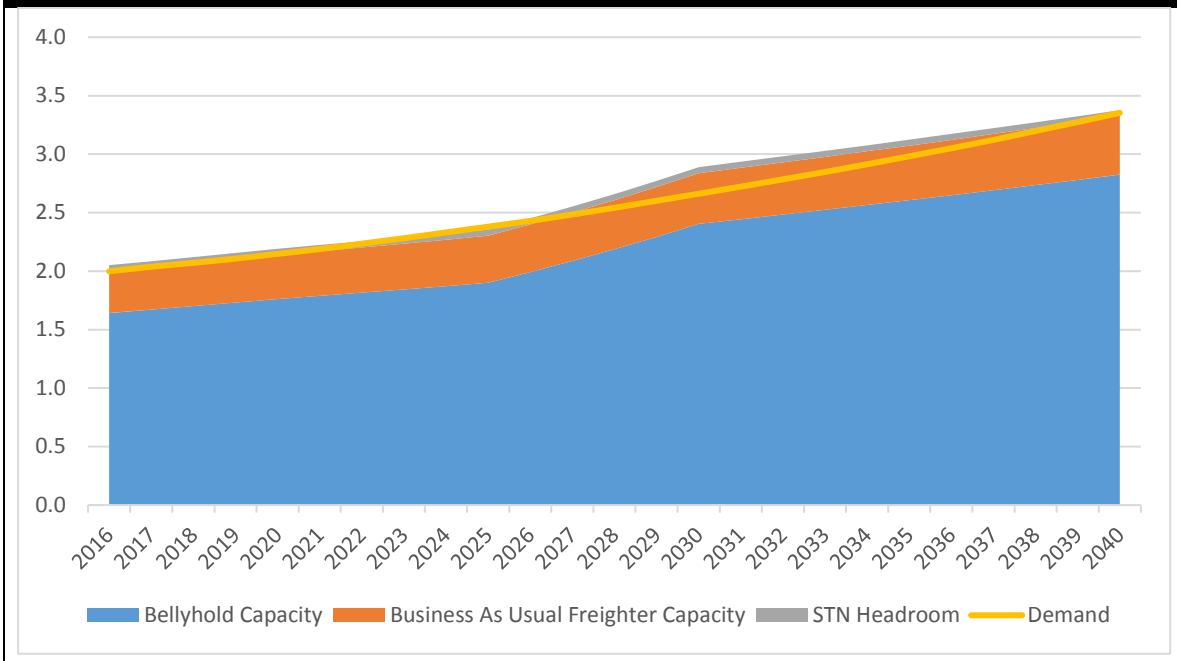


Source: York Aviation

[48] East Midlands Airport Sustainable Development Plan, 2015. Page 75.

3.31 At a UK level, our analysis suggests that there are unlikely to be capacity issues in the cargo market prior to 2040 even on a Business As Usual Freighter Capacity basis. Once the third runway is opened at Heathrow, there is in fact likely to be excess capacity in the market, which is likely to soften demand for supporting freighter capacity dedicated to general air freight (accepting that integrator/express freight is a separate market to a significant degree). It should, however, be noted that capacity on a Business As Usual Freighter Capacity basis is likely to become constrained shortly after 2040 but this can easily be addressed by exploiting the inherent airport capacity headroom still available at Stansted and East Midlands if it is appropriate to serve the market in that way. Overall, we can conclude from this analysis that there will be no shortage of freighter capacity in the UK before 2040 and overspill from other airports would not provide a rationale for re-opening Manston.

Figure 3.7: London System Air Cargo Capacity



Source: York Aviation

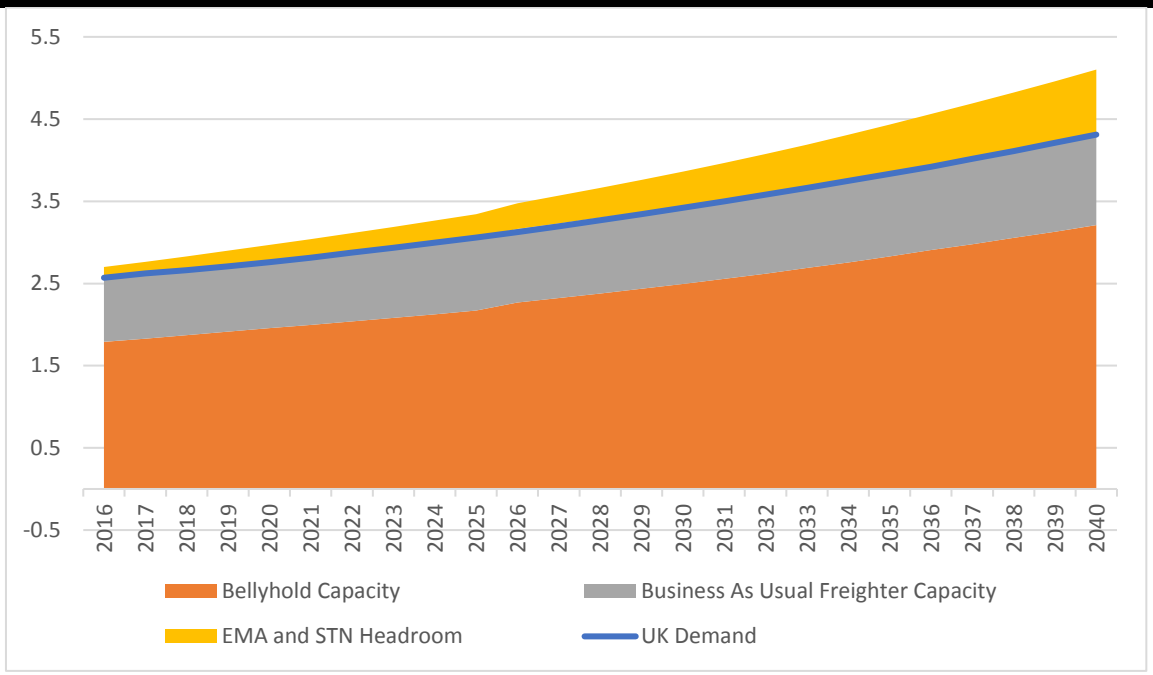
3.32 The situation at the London airports is slightly different if we assume that London maintains its market share of the overall market and there is no natural 'clawback' to the regions. With Heathrow's bellyhold growth relatively constrained, there are potentially some limited capacity constraints in the medium term before the third runway opens but, if there was demand, we would expect Stansted to develop additional freighter capacity sooner. Any constraint would be fleeting. Once the third runway is opened, excess capacity develops rapidly. Potential capacity issues do not then start to re-emerge until around 2040, when it appears that Heathrow is likely to become runway capacity constrained once more.

3.33 The implications for Manston Airport are that, even in pure volume terms, push factors from other airports in London are unlikely to provide opportunities for growth before 2040, and this is before any consideration is given to Manston's suitability to serve the markets in question. In the short to medium term, there is likely to be some limited constraint in the London system before the third runway at Heathrow is opened. However, this is largely a function of bellyhold constraints at Heathrow and it is highly questionable as to whether the type of cargo that is likely to be forced out will be suitable for Manston or indeed would switch from bellyhold to pure freighter operations at all.

3.34 Logic would suggest that what will be pushed out is relatively low yielding, general air cargo that is more sensitive to price and less sensitive to time. Essentially, this is akin to business passengers forcing leisure passengers out of Heathrow. This type of air cargo is not likely to see pure freighters as an effective alternate, given the higher prices involved. It is more likely to seek out alternative bellyhold capacity at UK regional airports (which might actually be closer to its point of origin given our analysis above) or travel via truck to the continental European airports.

3.35 Our analysis here has been predicated on the construction of a third runway at Heathrow, as this is clear stated Government policy. In the event that the third runway is delayed or does not happen at all, it is expected that there would be other adjustments in the UK air transport market, including the provision of more long haul services from other airports offering bellyhold capacity. In this case, whilst there could theoretically be a level of capacity shortfall at the London airports assuming that they maintain a constant market share, we would expect demand and capacity to keep pace at the UK level as growth at regional airports is accelerated. This is illustrated in **Figure 3.8**. We consider that analysis at the UK level remains the most relevant and this does not suggest that there will be a capacity shortfall before 2040.

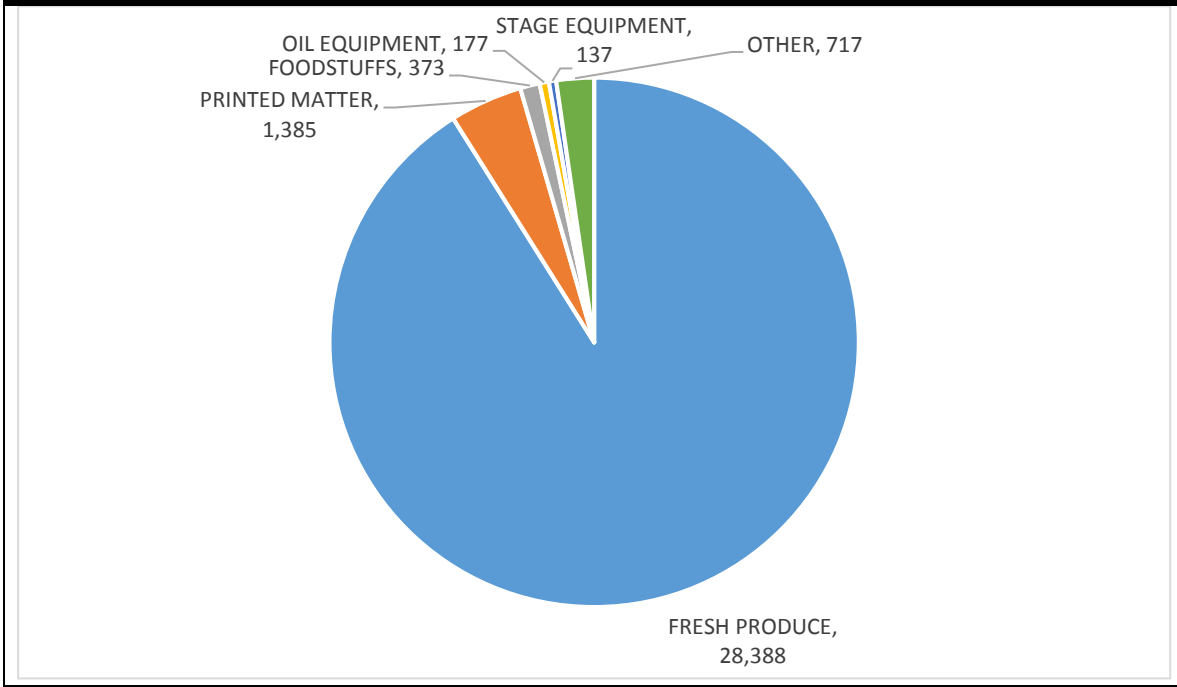
Figure 3.8: UK Air Cargo Capacity with No Third Runway at Heathrow



Source: York Aviation

3.36 An examination of the nature of cargo traffic that used Manston in the past also supports this assessment. Data provided to York Aviation by the current owner and set out in **Figure 3.9** shows that the Airport was essentially an import point for fresh produce (91% of total tonnage in 2012). This is a time critical market with associated high yields (hence allowing freighter operations) but also one that is dominated by Heathrow through its perishables hub and its bellyhold capacity to Africa. It is unlikely that Heathrow would shed significant amounts of this traffic with cargo constraints and certainly it would likely gain market share once the third runway is opened. Heathrow remains better located for the distribution of this produce to the core London market given its location inside the M25.

Figure 3.9: Air Cargo at Manston by Commodity Type in 2012 (tonnes)



Source: York Aviation analysis of Stone Hill Park data

3.37 It should also be remembered that this assessment assumes that Stansted does not accelerate its cargo development plans to meet any excess demand that is suitable for freighter activity. Indeed, we understand that the perishables activity that used to use Manston has shifted back to Stansted and that the operation at Manston was supported by low charges to the airline to compensate for the less attractive location.

Specific Air Cargo Market Forecasts for Manston Airport

3.38 Building on the analysis above, we have considered three scenarios for future cargo growth at Manston Airport. In each case, we have considered the likelihood of the scenario coming forward. It should be noted that, in the air transport market, demand is the driver of airport usage not capacity. Provision of capacity at Manston is no guarantee that airlines, shippers and passengers will use it unless there is demand and Manston represents the most efficient way for that demand to be met.

Scenario 1: Relief for Capacity Constraints in London (Highly Optimistic and very unlikely)

3.39 In this scenario, we have assumed that Manston is able to capture the excess demand that is seen in the London system in the medium term when only Freighter Business As Usual capacity is considered. It is then able to maintain its market share into the long term, even once the excess demand has disappeared with the appearance of the third runway.

3.40 We ultimately regard this scenario as highly optimistic and very unlikely to occur. We do not believe that the nature of excess demand is likely to suit freighter operations. This fits with the current market, where Heathrow is almost certainly constrained in terms of its ability to offer bellyhold capacity and yet there remains significant freighter capacity elsewhere and there has been no upturn in the demand for air freighter operations. We also feel it is highly unlikely that Manston could maintain market share in the context of the opening of a third runway at Heathrow. Even in the absence of a third runway, pure freighter capacity at Manston is not likely to be attractive for most of the freight displaced which would still choose cheaper bellyhold capacity available elsewhere in the UK and Europe.

3.41 We consider this scenario to be an upper bound to the envelope for Manston Airport. Even in this scenario, forecast tonnage only reaches around 105,000 tonnes by 2040 or around 4,470 cargo aircraft movements. The estimate of aircraft movements assumes loads similar to that of Manchester Airport's current freighter operations, growing by around 1.1% per annum. This appears to be a relatively low loading compared to Manston's previous operations[49] (hence providing a higher ATM number for any given tonnage and thus likely to overstate the number of movements).

3.42 We note that Azimuth have assumed an even lower tonnage per cargo air transport movement of under 20 tonnes, so leading to an overstatement of the number of aircraft movement at any predicted tonnage, but this does not appear realistic based on Manston's past operations nor tonnages seen elsewhere.

[49] We estimate that the number of tonnes per cargo ATM previously at Manston was 35-40 tonnes, taking into account empty aircraft backhauls.

Scenario 2: Manston Achieves Its Previous Market Share (More Likely but still with optimistic elements)

3.43 This scenario assumes that Manston essentially re-enters the market as a niche player in the key markets that it served previously, mainly fresh produce. This reflects the view that, in reality, very little has changed in the market compared to when Manston was last operational, not least that Heathrow was already suffering from runway capacity issues prior to 2014. There are no major changes that we would consider sufficient to alter Manston's attractiveness fundamentally compared to 2014. We note Azimuth's contention that Brexit will make trucking to Europe more difficult but would point out that the freight involved is most likely to be general air cargo heading for bellyhold capacity that is relatively less sensitive to time and that additional regulatory burdens are likely to be found at airports as well post Brexit. Hence, the impact on relative transit times may actually be comparatively limited. Furthermore, it is far from clear to us, from the evidence presented by Azimuth, that there were concerns regarding the quality of service offered at Manston historically sufficient to have constrained its share of the market in the past. Hence, it is not unreasonable to start from a position that its past market share was representative of what it might attain in future and that the provision of more infrastructure would not give rise to a change in the market or a higher level of underlying demand.

3.44 We regard this as the most likely of our three scenarios but it also has optimistic elements. Notably, it is highly optimistic to assume that Manston will be able to maintain market share in the face of expanded capacity at Heathrow. We would also note that the Airport was not viable at similar demand levels previously and would appear to have only been able to reach its recorded market share by 'buying' traffic through very low airport charges based on our discussions with SHP and its staff that worked at the Airport when operational. In this scenario, the Airport reaches around 47,000 tonnes by 2040 and around 2,000 cargo aircraft movements.

Scenario 3: Relief for Capacity Constraints in London (More Realistic but still with some optimism)

3.45 Scenario 3 is a variant of Scenario 1 that takes a more realistic view on how the limited excess demand in London in the medium term (allowing for pure freighter Business as Usual activities only) might be served. We would view this scenario as substantially more realistic than Scenario 1 but still with highly optimistic elements.

3.46 In this scenario, the excess demand is split as follows:

- 50% is assumed to be to diverted via truck to make use of bellyhold capacity at UK regional airports or at the continental hubs in Europe. This reflects the view that, in the majority of cases, this freight is likely to be relatively price sensitive, less time critical general air cargo for which pure freighters are not likely to be an appropriate substitute;
- the remainder is assumed to be split evenly between East Midlands, Stansted and Manston airports. This is, again, probably an optimistic assumption given the economies of scale and better proximity to markets overall offered by the other two airports compared with Manston.

3.47 Once the excess demand in London has peaked (just before the opening of a third runway), Manston is assumed to be able to maintain its market share into the future. This is again an optimistic assumption given what will be an excess of capacity in the market for much of the following period through to 2040. This scenario involves the lowest cargo throughput of the three options. By 2040, the Airport is handling only 17,500 tonnes of freight and handling around 750 aircraft movements each year.

Summary of Cargo Forecast Scenarios

3.48 The cargo tonnage and freighter ATMs associated with each of the three scenarios are set out below in **Table 3.1**.

Table 3.1: Summary of Manston Cargo Forecast Scenarios						
	Scenario 1: Relief for London (Highly Optimistic)		Scenario 2: Previous Market Share		Scenario 3: Relief for London (More Realistic)	
	Tonnes	ATMs	Tonnes	ATMs	Tonnes	ATMs
2020	7,608	402	30,359	1,605	1,268	67
2021	18,407	963	30,966	1,619	3,068	160
2022	31,758	1,643	31,616	1,635	5,293	274
2023	45,571	2,332	32,280	1,652	7,595	389
2024	59,860	3,029	32,958	1,668	9,977	505
2025	74,638	3,736	33,650	1,684	12,440	623
2026	76,205	3,773	34,357	1,701	12,701	629
2027	77,958	3,818	35,147	1,721	12,993	636
2028	79,751	3,863	35,956	1,742	13,292	644
2029	81,585	3,909	36,782	1,762	13,598	651
2030	83,462	3,955	37,628	1,783	13,910	659
2031	85,381	4,002	38,494	1,804	14,230	667
2032	87,345	4,050	39,379	1,826	14,557	675
2033	89,354	4,098	40,285	1,848	14,892	683
2034	91,409	4,147	41,212	1,869	15,235	691
2035	93,511	4,196	42,159	1,892	15,585	699
2036	95,662	4,246	43,129	1,914	15,944	708
2037	97,958	4,300	44,164	1,939	16,326	717
2038	100,309	4,355	45,224	1,964	16,718	726
2039	102,716	4,411	46,310	1,989	17,119	735
2040	105,182	4,468	47,421	2,014	17,530	745
Source: York Aviation						

3.49 Our updated analysis of the market and specific consideration of three potential scenarios for freighter growth at Manston Airport demonstrate that, even on the most optimistic assumptions, it is not likely to generate above 4,470 annual movements by air cargo aircraft. On a more realistic basis, it might attain similar levels of tonnage as seen in 2003 by 2040 but with a higher number of aircraft movements due to the assumption we have made that freighter loads would be similar to those seen elsewhere in the UK rather than the higher loads actually observed at Manston in the past. On past performance, the number of movements at Manston might well be lower. **None** of our scenarios suggest that there is a need to increase the capability of Manston Airport given our assessment in Section 4.

4 CAPABILITY OF THE SITE

4.1 Our start point for this assessment is the capability of the Airport site based on its historic and consented planning status and on the basis that the existing infrastructure could all be 'made good'. This assessment is based on the existing Lawful Use in planning terms. The existing Airport's permitted use is for civil aerodrome use, and there are no conditions limiting either passenger numbers or ATMs.

Capacity of Existing Facilities

4.2 In the first instance, it is important to highlight that Manston Airport did not operate under any form of restriction on the number of aircraft movements. The planning agreement between TDC and Manston Airport, which governed the permitted activity of the Airport, was entered into in 2000. In respect of night-time flying it sets out the limitations on such operations until a "Night-time Flying Noise Policy" is in place. Clause 1.1 of the Second Schedule states:

"The Owner agrees not to cause suffer or permit any Regular Night Flying Operations at any time (subject to Paragraph 1.4 below) before a Night-time Flying Noise Policy shall have been prepared and a copy lodged with the Council."

Further, it defines:

"Regular Night Flying Operation means Flight movements which are scheduled or programmed and which occur frequently or regularly to the same or similar patterns for the same operator during Night-time"

4.3 It is understood that the Night-time was defined as 23.00-07.00, though Manston Airport was also seeking a Night Quota Period which would have run from 23.30-06.00. In practice, there were a number of night movements which were deemed to be ad-hoc and often driven by technical delays but that were permitted to operate in any event.

4.4 We have assessed the capability of the existing infrastructure at Manston Airport assuming that the range of existing facilities, as at the time of its closure, are made good. There are three principal elements – runway, passenger and freight:

- **Runway:** for the handling of commercial passenger and freight aircraft, the runway would operate without a parallel taxiway. The current marked parallel taxiway is too close to the runway centreline to allow such aircraft to taxi independently of a runway movement. Landing and departing flights would then need to back track along the runway to and from the entry/exit taxiways. The achievable maximum runway rate with this operation might be around 20 to 24 flights per hour depending on the mix of aircraft types. This runway movement rate, even at 50% utilisation of available slots, would be capable of accommodating around 64,000 aircraft movements a year. However, we recognise that this is in excess of the capability of the passenger and freight handling facilities as existing.

- **Passenger:** the passenger apron has been designed to accommodate 4 E-Jet FK100 passenger aircraft. These aircraft types are now rare and have a wingspan that is much less, at 28 metres, than the typical low fares airline Code C type aircraft that Ryanair, easyJet and Wizzair, for example, use. These airlines typically use aircraft such as the B737-800 and A320, with wingspans of 36 metres. On this basis, the passenger apron would be able to accommodate up to 3 of these larger Code C aircraft simultaneously and could, in the alternative, be used for handling cargo flights. The terminal itself is quite compact and would have a maximum of 6 check-in desks and very small baggage make up area, and a departure lounge that could depart a maximum of 2 flights within the same 30 to 40-minute period, with an hourly capacity in total of around 250 passengers. There are more than 1,000 car parking spaces. We estimate that the passenger terminal at its current size could support around 0.7 to 0.9 mppa based on there being up to two based Code C aircraft with a reasonable number of other visiting flights across a typical day.
- **Freight:** the aircraft parking area close to the freight sheds can park up to 2 or 3 small to medium sized cargo aircraft or one large aircraft. There are two freight sheds that were originally organised to be used one for imported freight and one for export. Adjacent to these is an 'equine' handling facility for processing livestock. In practice Manston, when operational, normally handled one large freight aircraft at a time due to size and juxtaposition of the freight sheds and apron to each other and the single taxiway connecting to the runway. Whilst Manston handled up to 30,000 tonnes of freight at its peak, our understanding is that the freight facilities could have handled substantially more tonnage.

4.5 Our assessment into the capability of Manston Airport is based on the reinstatement of the runway, air traffic control, fire station, navigational aids, apron (stands) and taxiways. We have taken into account the use of both apron areas, one to the west adjacent to the cargo sheds and one to the east, adjacent to the passenger terminal. These could accommodate collectively up to 4 freight aircraft simultaneously. The assessment is also based on an 18-hour operational day (allowing for a small number of ad hoc night movements consistent with previous operations) and with a turnaround window of up to 2½ hours from the arrival to departure of each freight aircraft resulting in the capability of each stand to handle over 7 aircraft rotations a day, or over 14 cargo aircraft movements.

4.6 On this basis, across a year, this would equate to a capability for at least 21,000[50] annual air cargo aircraft movements with the existing consented infrastructure, subject only to reinstatement. This assessment is consistent with the assertion made in presentations on behalf of RSP[51], which stated that the 10,000 cargo aircraft movement threshold, necessary to pass the Section 23 test in the Planning Act 2008 (as amended), could be met by providing for 14 aircraft arrivals and 14 aircraft departures each day. As the existing infrastructure could provide for 4 cargo aircraft being handled simultaneously, this would equate to 20,440 annual air transport movements by cargo aircraft. This would be more than sufficient to accommodate any reasonable forecast of the cargo related movement demand that Manston might attract as we have set out in Section 3.

[50] Should a night time noise policy be agreed with Thanet District Council pursuant to the existing planning agreement that enabled a longer operational day and/or a number of scheduled night movements, then the capability could, in theory, be higher than 21,000 annual cargo aircraft movements.
[51] RSP, Presentations for Thanet District, Dover District, and Canterbury City Councils

4.7 We recognise that the actual usage of that capability will depend on how an airport is used in terms of the daily and seasonal pattern of movements but this does not, of itself, reduce the capability offered by the existing consented infrastructure for air transport movements. Our assessment, therefore, provides essential missing information from RSP's materials to date which is necessary for the purposes of section 23 of the Planning Act 2008 (as amended), for assessment purposes under the Environmental Impact Assessment Regulations and for consultation purposes.

Land Required to accommodate RSP's Forecasts

The RSP Master Plan

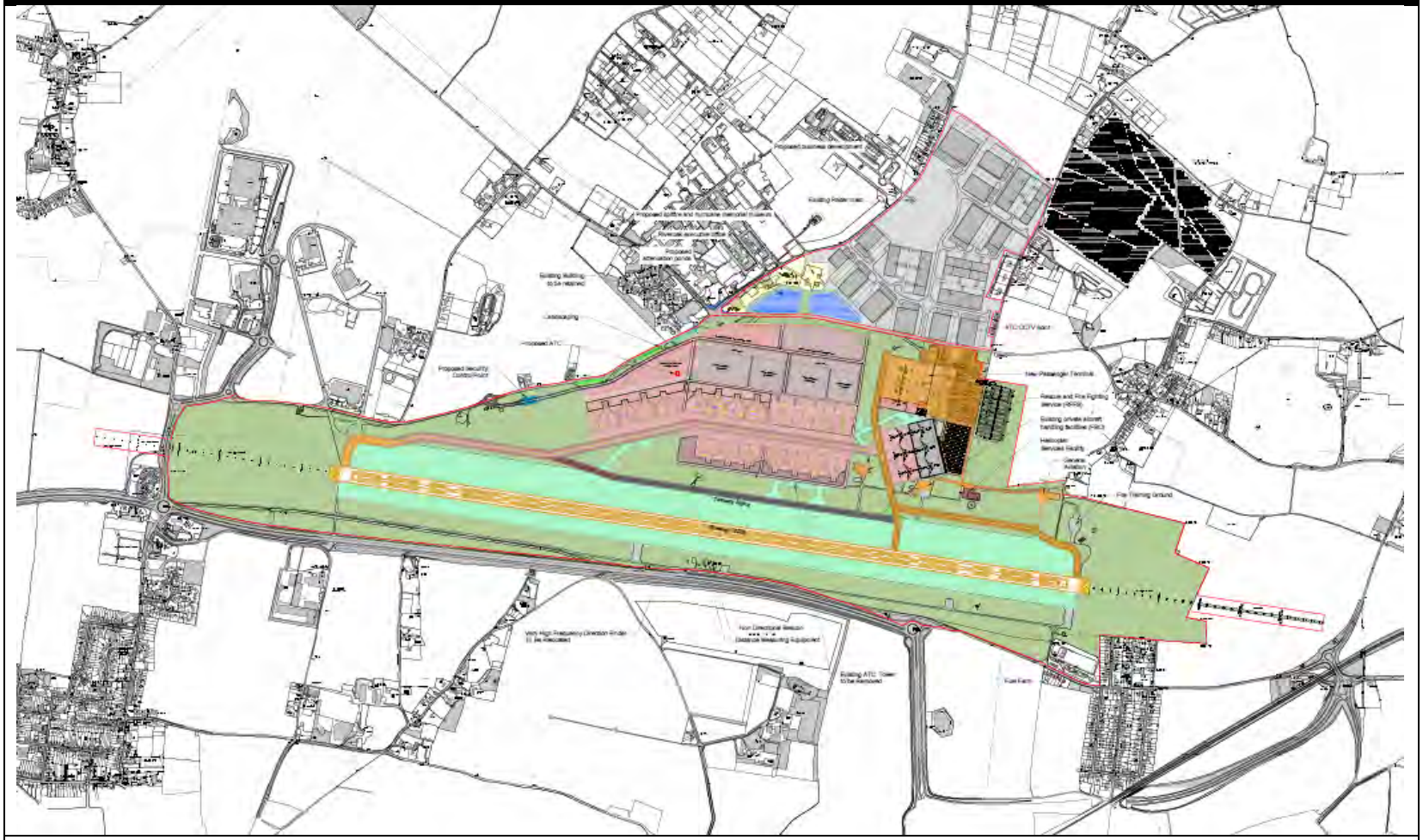
4.8 The Master Plan presented by RSP for the Manston Airport site is shown at **Figure 4.1**. It makes use of the full length of the runway and provides a full length parallel taxiway. The western side of the site is dedicated to freight handling activity and has 19 Code E aircraft stands for cargo flights and 4 large cargo sheds for the processing of freight supported by truck loading and parking areas. The eastern side of the site shows as a new passenger terminal and apron along with a MRO hangar and apron. The existing private aircraft handling facility (FBO) and fire station site is retained. We are not entirely clear how such works would be phased, although we understand that 4 phases of development are planned. RSP projects that Manston will need to be able to handle 17,171 cargo related ATMs and that 1.4 mppa of passengers will be handled by 2039. These represent the basis for the proposed DCO application and we assume, therefore, that these will be the limits on the number of movements and passengers which the site would be capable of accommodating as these form the basis for the assessment of environmental and other impacts. However, this is unclear from the consultation documentation.

4.9 We are unclear why 19 Code E stands are proposed given that the fleet mix at 2039[52] shows 85% of aircraft (at 17,171 annual cargo aircraft movements) being by aircraft smaller than Code E dimensions. Even allowing for some larger Code F types (<2% of movements), it would be possible to reduce the area of apron required for the fleet mix proposed, leaving aside whether 19 stands are required for the simultaneous parking of cargo aircraft at any one time, which we discuss further below.

4.10 To the north of the site, on the 'Northern Grasslands', a new development is shown, which appears to consist of commercial sheds and factory buildings with no obvious connection to the operation of the Airport being located entirely on the landside of the B2050. We assume that RSP's intention is to lease out these landside commercial buildings on this northern site so as to provide a rental income to cross subsidise the operation of the Airport. We discuss the need for this land further below.

[52] Azimuth Volume III, Table 2.

Figure 4.1: RSP Masterplan – Proposed Site Layout



Source: RSP

Land Required

4.11 Without prejudice to our position that we do not consider that RSP's proposals are credible in terms of the level of demand that might be attracted to Manston, we do not consider that the scale of development proposed by RSP for 17,171 cargo related movements is necessary, justifiable or reasonable, based on the principles set out at paragraph 4.5 above.

4.12 At **Figure 4.2**, we illustrate the justifiable and reasonable extent of land required at Manston Airport to support a cargo operation of 17,171 ATMs and passenger operation of 1.4 mppa (even though we do not accept that these ATMs and passenger numbers can be reached). This is based on our experience of airport operations around the world.

4.13 We recognise that there could be an opportunity for maintenance hangars for heavier aircraft maintenance activities but the need for these will not necessarily be triggered by the establishment of passenger operations. Depending on the nature of the freight and passenger carriers that set up services at Manston, the need for maintenance hangars cannot be ruled out and we have allowed for one twin bay hangar with a footprint of approximately 6,000m2 or two single bay hangars at 3,000m2 each.

4.14 It is also reasonable to expect that there will be some business and some general aviation activity. However, unless a bespoke FBO is set up, which we believe is unlikely given the distance from the main business aviation market in London and with Biggin Hill much closer to the core market, there would be very limited use by business aviation. Any small general aviation or flying school activity can be accommodated within the land area shown. These facilities, and any aircraft dismantling activity as also suggested in Azimuth's forecasts, would need to have direct airside access and so would need to be located to the south of the B2050. In other words, all of the operational facilities to support the operation of the Airport would require to be located to the south of the road and not on the 'Northern Grasslands' site.

4.15 We have clearly marked the area of land to the south of the B2050 that is not required for the defined airport operations in green on Figure 4.2. To the north of the Airport site, the 'Northern Grasslands' are marked in yellow and is not required for the scale of airport activity proposed by RSP. We discuss the potential use of this area further below. Figure 5.2 clearly shows that the extent of airport land needed to support the scale of freight and passenger activity proposed by RSP is significantly less than that proposed by the RSP. There are surplus areas of land within the core airport site as well as the 'Northern Grasslands' that are not required to support the throughput proposed.

Figure 4.2: Airport Land for 17,121 Freight ATMs and 1.4 mppa Operation – Surplus Land: Airport Land (Green), Northern Grasslands (Yellow)



Source: York Aviation

4.16 We summarise at **Table 4.2**, those facilities proposed by RSP in its Master Plan but are not, in fact, required to support essential airport operations.

Table 4.2: Classification of RSP Proposed Airport Facilities at Manston Airport

	RSP proposed airport-related development	Facilities not Essential for an Operational Cargo Airport
4	Retention & Extension of Passenger Apron	✓
11	New replacement Passenger Terminal building	✓
12	New and extended passenger car parking areas	✓
23	Relocation of the two existing museums	✓
24	Demolish old Control Tower in northern area	✓
25	Airport related businesses on Northern Grasslands	✓
26	New MRO aircraft maintenance hangars	✓
27	New FBO in refurbished business aviation terminal	✓

4.17 Although a replacement radar is shown by RSP re-using the old radar tower within the 'Northern Grasslands' area, it is not clear that a replacement radar would actually be required, although a radar service would be required. It is likely that a radar service could be procured more cheaply by buying in radar coverage from an alternative radar position rather than re-providing a radar on site. This is increasingly common practice at smaller airports. In the event that a replacement radar was required, this would not need to be located on the 'Northern Grasslands' but could be located within the airfield site to the south of the B2050.

4.18 In terms of the use of the 'Northern Grasslands', there is no particular requirement for extensive freight forwarding facilities on site as consolidation of loads is likely to continue to take place in and around Heathrow as currently. Any freight forwarding activity directly to support 17,171 cargo aircraft movements is likely to be containable within the area shown for freight warehousing within the airfield site.

4.19 No other justification is given for the extent of the commercial development shown on the 'Northern Grassland' part of the site. In our view, it is certainly not 'associated development' required to support the operational airport, other than in terms of providing a financial cross subsidy from rental income for general commercial buildings.

4.20 The need, then, for such an extensive development across the 'Northern Grasslands' cannot, in our opinion, be justified and is substantially in excess of what is seen elsewhere. The scale of supporting infrastructure proposed appears substantially greater than exists at the UK's main pure freight hub at East Midlands. We have seen no reasoned justification for the scale of facilities proposed. It appears to cover an area (c.48 hectares), which is more than double the size of the associated Pegasus Business Park area at East Midlands Airport (c.21 hectares), which currently handles virtually the same cargo tonnage as projected by Azimuth for Manston at 2039. Furthermore, it is significant that a substantial part of the East Midlands area is occupied by hotel development (3 hotels) in support of the much greater passenger throughput at that airport, a Regus office complex, and many of the other occupiers of sites within the Pegasus Business Park are not related to the activity at the Airport and include companies such as PwC, Laser Optical Engineering, Nikon Metrology UK, Medstrom Healthcare, Rail Vision and PKF Cooper Parry making use of an accessible location close to the M1. None of these activities would be essential in relation to freight activity at the airport and so would not meet the test for associated development required for inclusion with a DCO.

Realistic Requirements

4.21 Clearly, as is evident from earlier sections of this report, our opinion is that RSP's projections for the use of Manston Airport cannot be realised. Hence, the area of land required to accommodate lower levels of activity would be proportionately smaller, occupying a substantially smaller area of land to the south of the B2050 than shown on Figure 4.2.

Conclusions on Capability

4.22 The existing infrastructure at Manston Airport, if made good, would be capable of handling 21,000 annual air cargo transport movements[53]. However, the actual usage of that capability would depend on the pattern of operation and how the infrastructure was used on a day by day basis.

4.23 Without prejudice to our view that demand to use Manston is not likely to be anything like 17,171 cargo aircraft movements a year, we consider that the land required to accommodate such a number of movements would be substantially less than shown on the RSP Master Plan.

4.24 We can see no justification for the inclusion of the 'Northern Grasslands' within the DCO as associated development as there will be little requirement for the relocation of freight forwarding activity from adjacent to the UK's main cargo hub at Heathrow to Manston and any requirement could be accommodated south of the B2050. The development on the Northern Grasslands site appears to be speculative commercial development which, based on the precedent at East Midlands Airport – the UK's principal airport for pure freighter operations – would be expected to be largely for non-aviation related uses.

[53] Based on an 18-hour operational day. Should a night time noise policy be agreed with Thanet District Council pursuant to the existing planning agreement that enabled a longer operational day and/or a number of scheduled night movements, then the capability could, in theory, be higher than 21,000 annual cargo aircraft movements.

5 SOCIO-ECONOMIC IMPACT

Introduction

5.1 In this section, we examine the socio-economic benefits that are put forward by Azimuth and the flaws that are apparent in their approach. These render the socio-economic case put forward unreliable. We then move on to provide our own estimates of the socio-economic impacts of Azimuth's traffic forecasts based on more appropriate assumptions and also set out the socio-economic impacts associated with our own traffic forecasts to provide a more reasonable basis for considering the extent of the benefits that might realistically accrue from the re-opening of the Airport.

Comments on Azimuth Socio-Economic Assessment

5.2 Volume IV of the Azimuth's Report sets out the socio-economic case for the DCO for Manston. This assessment naturally relies on the traffic forecasts presented in Volume III. This means, of course, that the socio-economic assessment is rendered unreliable by the failings of the traffic forecasting approach and the incorrect inferences drawn from the assessment of the market. However, there are also substantial failings in relation to the methodology used for the socio-economic impact assessment itself, which result in significant over estimates of the impacts. We would also re-emphasise that the Airport must be commercially viable to be able to deliver these benefits, otherwise it will simply fail and no level of benefit will be delivered. RSP has not clearly demonstrated that the operation of the Airport would be viable at any level of throughput and, in the light of the conclusions of Aviasolutions in their advice to Thanet (see Section 6 of this report), viability must be in serious doubt based on our analysis of the likely usage as set out in Section 3. This renders any analysis of the socio-economic impacts to a large extent moot. Setting aside the issue that the Airport is highly unlikely to be viable and that the traffic forecasts set out are significantly overstated, we have identified below a number of key flaws in Azimuth's approach and analysis of the economic impacts.

5.3 At the outset, it is probably helpful to highlight the key area in which we agree with Azimuth's analysis and conclusions. We agree that the East Kent area is in need of regeneration. It is simply that we do not believe that Manston Airport can deliver the benefits set out. Any attempt to re-open the Airport is not likely to succeed as it is hard to see that viability could be attained with realistic forecasts of usage. Another failure of the Airport would be more likely to damage the image of Kent as a place to invest than enhance it.

5.4 Azimuth spend some time considering the appropriate employment density on which to base an assessment of direct employment. They ultimately conclude that East Midlands Airport provides an appropriate comparator (see paragraph 4.1.4 of Volume IV). This information is then used to drive large parts of the benefit calculations for Manston. York Aviation provides economic impact advice to MAG in relation to both its major freight airports, East Midlands and Stansted. From this knowledge, we would suggest that the job numbers quoted and used here are an incorrect base as they include substantial numbers of non-airport related jobs located on the business park at East Midlands Airport, discussed in the previous section. This means that the employment density used by Azimuth is far too high for genuine airport related activity. In any event, the employment at East Midlands is higher than might be anticipated anyway given the very significant employment supported at the site by DHL's UK main base of operations, which is not likely to be replicated at Manston.

5.5 We accept that it is difficult to identify an ideal comparator for a re-opened Manston in the UK but would suggest that an airport such as Glasgow Prestwick would be a much more appropriate comparator. The Airport has a low fares operation by Ryanair and has a reasonably significant pure freighter operation (although this has been substantially larger in the past). There is also detailed information on the economic impact of that airport in the public domain from work undertaken by both York Aviation[54] and SQW[55]. We have used information from this research later in this section to provide a more realistic base for assessing the economic impact of Manston.

5.6 The multipliers used by Azimuth for indirect and induced employment and economic activity in their assessment are simply inappropriate. Firstly, the multipliers adopted are for the impact at a national level. The study area for this economic assessment and the focus of Azimuth's comments is the sub-region around Manston Airport. Multipliers appropriate to this much smaller area should have been used and would have been substantially smaller. Secondly, the multiplier used (2.1) is a European average taken from research by InterVISTAS for ACI EUROPE[56]. The adoption of this Europe-wide multiplier is strange given that that the research does actually provide a specific multiplier for the UK[57], which is substantially smaller at 1.5. Use of the appropriate multiplier would, of course, have significantly reduced the job impacts suggested, even at a national scale.

5.7 There is a further issue in relation to the use of an inappropriate multiplier covering national level effects in that displacement of activity from other airports should have been taken into account. To the extent that any of the activity projected for Manston is displaced from other airports, as our analysis strongly suggests it will be, there will be a relative reduction in employment and economic activity in the vicinity of these other airports. So whilst, correctly calculated, the employment and economic effects local to Manston would be additional, the effect of displacement of activity would need to be netted off wider national or regional (South East) impact assessments.

[54] The Economic Impact of Glasgow Prestwick Airport – York Aviation (2012). http://www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=509
[55] Economic Impact of Glasgow Prestwick Airport – SQW (2008). http://www.sqw.co.uk/files/4413/8712/8925/99.pdf.
[56] The Economic Impact of European Airports – InterVISTAS for ACI Europe (2015).
[57] Ibid. Page 103.

5.8 As well as using a multiplier for indirect and induced impacts, a multiplier is used to assess the wider catalytic employment[58]. The multiplier used is taken from out of date research for ICAO[59] and it should be said that catalytic impacts remain a difficult area in terms of quantification. There is not sufficient detail in the ICAO report[60] that Azimuth rely on to understand how this catalytic multiplier has been derived. However, again, there are issues with the use of this multiplier. Firstly, it appears to be a global multiplier, which would again be completely inappropriate for use in considering sub-regional impacts around Manston and it has been wrongly applied to total job numbers rather than direct job numbers. In practice, the correct approach would have been to consider the specific additional connectivity that Manston Airport might provide for Kent and assess how this might relate to attracting additional business activity and tourism to the area.

5.9 In examining the employment projections presented (Section 5.1 of Volume IV), it appears that no allowance has been made for either productivity growth or returns to scale over time and as the Airport grows. While information on potential on-site productivity growth can be hard to come by, we would expect some allowance to have been made. A typical figure might be around 2% per annum based on our experience at other airports. The result of this omission is that future direct job numbers, in particular, are likely to be significantly overstated given the compounding effect of failing to account for productivity growth.

5.10 Section 7 of Volume IV discusses other socio-economic impacts. In particular, it talks about contributions to GDP. Para 7.1.1 describes GDP as *"a monetary measure of the state of a Region's or a Country's economy"*. This is not correct. It is a measure of the size of the economy. It does not comment on the state of the economy or the prosperity or wealth within it. The calculations of GDP impacts presented are based on the job numbers estimated earlier in the report. They are, therefore, likely to be significant overestimates given the flaws in the demand forecast method and the job density and multiplier assumptions.

5.11 The comments in Paragraph 7.1.7 describing how Manston could contribute significantly to Thanet's Economic Growth Strategy aspirations in terms of GVA per job and per capita are, in reality, unsupported. Given the methodology adopted, which essentially measures Manston's impact at a national level, it is actually very difficult to know what the effect might be on the Thanet economy. Undoubtedly, the Airport could support local jobs if it is re-opened but, in reality, the number of those jobs and their value has not been effectively calculated here. The aviation supply chain in the UK is heavily concentrated around the major airports, particularly in relation to air cargo. So, in practice, much of the economic benefit claimed would be realised in and around Heathrow rather than locally if Manston were to re-open. To the extent that any activity would be displaced to Manston, there would be negative economic implications elsewhere.

[58] Catalytic employment is related to additional economic activity generated in areas adjacent to an airport as a result of the additional connectivity offered by the airport.
[59] ICAO – International Civil Aviation Organisation, which is the inter-governmental body which regulates air transport globally.
[60] ICAO – Economic contribution of civil aviation: Ripples of prosperity, 2000.

The Socio-Economic Impact of the Azimuth Traffic Forecasts

5.12 Below, we have set out an estimate of the socio-economic impacts of the Azimuth traffic forecasts using more appropriate assumptions. We have retained the same basic analytical framework, which considers direct, indirect, induced and catalytic impacts, but we have used different basic assumptions in all areas:

- we have estimated the direct employment associated with the re-opening of the Airport based on employment densities observed at Glasgow Prestwick Airport during the production of our 2012 report for Scottish Enterprise[61]. This includes considering which elements of on-site employment are likely to be driven by passenger growth and which by cargo growth. Given the slightly differing approach, it is hard to provide a perfect comparison of job density. However, in Year 3, when both cargo and passenger operations begin, the York Aviation job density is around 650 jobs per million workload units, compared to around 890 assumed by Azimuth;
- we have used an indirect and induced multiplier for Kent of 0.4[62]. This is again taken from our work on Prestwick and reflects impacts of that airport in the Ayrshire economy, which would seem a sensible comparator. This multiplier is also in line with the benchmark multipliers set out in the Homes and Communities Agency Additionality Guide (2014)[63]. At this level, displacement affects do not need to be accounted for albeit they would still arise to the extent that activity at Manston displaces activity elsewhere;
- we have used catalytic multipliers for air freight taken from Steer Davies & Gleave's report on the UK Air Freight Industry for the DfT[64]. This identified national level catalytic multipliers for air freight of 3.46 and 3.76 (inclusive of the direct impact). There is no simple way to adjust these multipliers to the Kent economy. We have, therefore, reduced these multipliers by 75%. This is broadly akin the difference between sub-regional and national level multipliers for indirect and induced effects. As with all estimates of catalytic impacts, these should be regarded with some caution in the absence of a more detailed and specific assessment of the potential effects;
- we have assumed productivity growth at Manston Airport of around 2% per annum. This is typical of our experience of productivity growth rates at UK airports;
- in order to estimate the GVA impacts of the re-opening of the Airport, we have used GVA per job estimates from ONS for Kent. On-site jobs are assumed to generate GVA in line with the Transportation & Storage sector (£57,763), while jobs in the wider economy are assumed to reflect the average GVA per job for Kent (£52,623).

5.13 In **Tables 5.1** and **5.2**, we have set out our estimates of the socio-economic impact of the Azimuth traffic forecasts compared to the original estimates produced by Azimuth.

[61] *The Economic Impact of Glasgow Prestwick Airport* – York Aviation (2012).
[62] Note that this excludes the initial direct effect.
[63] See page 36.
[64] *AIR FREIGHT Economic and Environmental Drivers and Impacts* – Steer Davies and Gleave for DfT (2010). Page 106.

Table 5.1: Employment Impact of Manston Airport – YAL Socio-Economic Assumptions Comparison					
	Y2	**Y5**	**Y10**	**Y15**	**Y20**
Azimuth Impact Assumptions with Azimuth's freight + passenger forecast					
Direct	856	2,150	2,749	3,438	4,271
Indirect & Induced	1,798	4,515	5,773	7,220	8,970
Catalytic/Wider	0	8,601	10,996	13,753	17,085
Total	**2,654**	**15,266**	**19,518**	**24,411**	**30,326**
YAL Impact Assumptions with Azimuth's freight + passenger forecast					
Direct	688	1,555	1,791	2,033	2,291
Indirect & Induced	275	622	716	813	917
Catalytic/Wider	475	1,073	1,236	1,403	1,581
Total	**1,439**	**3,250**	**3,743**	**4,249**	**4,789**
YAL Total as % of Azimuth	**54%**	**21%**	**19%**	**17%**	**16%**
Source: York Aviation and Azimuth Associates					

Table 5.2: Gross Value Added Impact (£ million) – YAL Socio-Economic Assumptions Comparison					
	Y2	**Y5**	**Y10**	**Y15**	**Y20**
Azimuth Impact Assumptions with Azimuth's freight + passenger forecast					
Direct	£43	£108	£138	£173	£215
Indirect & Induced	£78	£195	£250	£312	£388
Catalytic/Wider	£0	£391	£499	£625	£776
Total	**£121**	**£694**	**£887**	**£1,110**	**£1,379**
YAL Impact Assumptions with Azimuth's freight + passenger forecast					
Direct	£41	£99	£126	£158	£197
Indirect & Induced	£15	£36	£46	£58	£72
Catalytic/Wider	£25	£61	£78	£97	£121
Total	**£82**	**£196**	**£250**	**£313**	**£389**
YAL Total as % of Azimuth	**68%**	**28%**	**28%**	**28%**	**28%**
Source: York Aviation and Azimuth Associates					

5.14 The differences between the two sets of estimates are marked. Our assumptions result in economic impacts being around a half to two thirds of those estimated by Azimuth initially. However, the gap widens over time as the impact of Azimuth's failure to allow for productivity growth and high multiplier assumptions feed through. In our view, the Azimuth estimates simply cannot be relied upon as a measure of the potential economic impacts of re-opening of Manston Airport. Not only are they infected by the errors in traffic forecasting, but the approach itself is highly flawed. A more realistic and robust assessment suggests that the local impacts within Kent, even on Azimuth's forecasts, would be substantially less than claimed and it is these lower order effects which would need to be balanced with the environmental and impacts in assessing the acceptability of the proposed development, including the loss of SHP's proposed mixed use development and the socio-economic benefits deriving therefrom.

A More Realistic View of the Socio-Economic Impacts of Manston

5.15 As we have described above, the socio-economic assessment undertaken by Azimuth was destined to fail before it started because of the failings in the traffic forecasts that feed the approach. We do not consider there is any realistic prospect of the Airport attaining 10,000 annual movements by cargo aircraft and the build up of traffic would be materially slower than Azimuth estimate.

5.16 We have, therefore, set out below an assessment of the socio-economic benefits that might be associated with re-opening Manston on the basis of York Aviation's most likely cargo forecast (that Manston is able to regain its previous market share) and our passenger forecasts, which are around half those assumed by Azimuth. Once again, we have used our socio-economic impact assumptions as described above. The resulting employment and GVA impacts are again set out compared to Azimuth's assessment of the economic impact of reopening Manston in **Tables 5.3** and **5.4**.

Table 5.3: Employment Impact of Manston Airport – YAL Forecasts Comparison

	Y2	Y5	Y10	Y15	Y20
Azimuth Impact Assumptions with Azimuth's freight + passenger forecast					
Direct	856	2,150	2,749	3,438	4,271
Indirect & Induced	1,798	4,515	5,773	7,220	8,970
Catalytic/Wider	0	8,601	10,996	13,753	17,085
Total	**2,654**	**15,266**	**19,518**	**24,411**	**30,326**
YAL Impact Assumptions with YAL's freight + passenger forecast					
Direct	216	391	409	442	486
Indirect & Induced	87	156	164	177	194
Catalytic/Wider	149	270	283	305	335
Total	**452**	**817**	**856**	**925**	**1,015**
YAL Total as % of Azimuth	**17%**	**5%**	**4%**	**4%**	**3%**

Source: York Aviation and Azimuth Associates

Table 5.4: Gross Value Added Impact (£ million) – YAL Forecasts Comparison

	Y2	Y5	Y10	Y15	Y20
Azimuth Impact Assumptions with Azimuth's freight + passenger forecast					
Direct	£43	£108	£138	£173	£215
Indirect & Induced	£78	£195	£250	£312	£388
Catalytic/Wider	£0	£391	£499	£625	£776
Total	**£121**	**£694**	**£887**	**£1,110**	**£1,379**
YAL Impact Assumptions with YAL's freight + passenger forecast					
Direct	£13	£25	£29	£34	£42
Indirect & Induced	£5	£9	£11	£13	£15
Catalytic/Wider	£8	£15	£18	£21	£26
Total	**£26**	**£49**	**£57**	**£68**	**£83**
YAL Total as % of Azimuth	**21%**	**7%**	**6%**	**6%**	**6%**

Source: York Aviation and Azimuth Associates

5.17 Unsurprisingly, the socio-economic impacts associated with the Airport are reduced even further on the basis of more realistic forecasts. The operation is simply of a much smaller scale. In Year 2, in generates 452 jobs, only 17% of the Azimuth estimate of 2,654. By Year 20, the differential is even larger, with the Azimuth estimates reaching over 30,000 jobs, but with our estimates at only just over 1,000. More likely, the Airport would cease operating again due to the inability to attain viable operations. In these circumstances, it becomes a moot point as there would be no jobs and economic impact over the medium to long term.

Conclusion

5.18 Once again, the evidence presented by Azimuth on behalf of RSP cannot be relied upon. It is infected with the flaws in the traffic forecasting methodology identified previously but the approach to identifying socio-economic impacts is, in itself, badly flawed. The socio-economic impacts are, as a result, massively overstated and, in any event, would not be realised if the operation of the Airport is not commercially and financially viable.

6 PEER REVIEW OF OTHER REPORTS

6.1 In this section, we set out a brief review of other reports produced on the potential for a re-opened Manston Airport.

Aviasolutions for Thanet

Commercial Viability of Manston Airport – September 2016

6.2 We note that this assessment was focussed on the likely viability of a re-opened Manston Airport. Hence the main focus was on scenarios for passenger growth as passenger operations make a significantly greater financial contribution to operating an airport given the ability to earn revenue from retail, catering and car parking as well as direct revenue from airport charges (landing, aircraft parking, passenger fees and any cargo handling fees). We note that Avia took a much more optimistic view than we do of the scope for passenger overspill from the main London airports to Manston but, to an extent, these scenarios were designed to assess whether re-opening Manston would be commercially viable rather than to assess a realistic level of demand.

6.3 Having assessed the historical performance of Manston, Avia assumed that it would be possible for the Airport to regain the broad level of cargo activity that is was handling before it closed. This is not dissimilar to our 'most likely' assumption. Significantly, Avia noted that:

"Our freight interviews indicated that the demand to use the airport for freight was very limited. This, in large parts, is due to two factors; the infrastructure investments that have already been made by the industry around Heathrow and Stansted, and the geographical location of the airport. Infrastructure, and the associated knowledge, skill and supporting industry at airports such as Heathrow and Stansted, as well as the major European hubs such as Frankfurt, and Paris, would be almost impossible for Manston to replicate. The geographic location of the airport, tucked into the corner of the UK, cannot compete with airports such as East Midlands for Integrator services that are sold as fast delivery, due to the increases in surface transportation times. The interviews did however indicate that charter services and ad-hoc freighter flights would certainly return, providing some revenue income for the airport"[65].

This accords with our view of the most likely prospects for Manston.

6.4 Overall, the Avia 2016 work concluded that Manston was not likely to be a commercially viable prospect if re-opened, certainly if it is assumed that another runway would be built at either Heathrow or Gatwick. We concur with this conclusion and, on the basis of our more realistic assessment of the level of passenger demand that the Airport might attract, commercial viability is even less likely to be attained.

[65] Aviasolutions, *Commercial Viability of Manston Airport*, September 2016, Section 8.3.

Local Plan Representations - Final Report – August 2017

6.5 This report largely deals with individual specific representations one at a time. Overall, Avia conclude that their *"opinion, based on updated market information since the publication of our previous study, is consistent with our earlier view that Manston Airport does not represent a financially viable investment opportunity under normal market conditions."*[66]

6.6 In relation to these representations, Avia state clearly that:

"The Local Plan Representations do not make a credible case, nor provide the evidence for AviaSolutions' to change its views on the financial viability of Manston Airport. We remain of the view that whilst Heathrow Airport continues to offer substantial freight capacity to a truly global network, and Stansted Airport utilises only around half of the statutory provision of air freighter movements, the London air freight market has capacity to grow without the re-introduction of capacity at Manston Airport. Freight Forwarders have invested heavily in infrastructure around these core airports, carriers have developed their networks as such, and without clear value drivers that support relocating services to Manston Airport, the case remains to be made that demand exists for a freight facility at Manston Airport. This view is reinforced by the empirical evidence of multiple failed attempts to develop profitable operations at the airport."[67]

6.7 Again, Avia's analysis concurs with our own in terms of the limited role that there would be for a re-opened Manston Airport given the evolution of the air freight market. We concur with Avia's analysis of the potential for other activities at Manston such as business aviation or aircraft dismantling and note that, in our experience, income generation from such activities would be low.

6.8 We note that, in this report, Avia correctly interpret our work for the FTA in terms of the potential for the equivalent of 80,000 air freighter movements to be accommodated away from the main London airports by 2050 in the event of no new runway being constructed. As Avia note, this demand is likely to be accommodated at a variety of other airports, including Manchester and East Midlands, with the former offering a substantial amount of bellyhold capacity by that date and the latter offering a dedicated freighter service. Displacement to regional airports is also a logical response given the amount of cargo from the regions which is currently trucked to the London airports. We have had no dialogue with Avia regarding the interpretation of our work but their interpretation of it confirms that Azimuth have simply misused headline figures from our work to support RSP's case without considering or understanding the broader meaning of our analysis in 2015 as Avia demonstrate.

[66] Aviasolutions, *Local Plan Representations - Final Report*, August 2017, Executive Summary.
[67] Ibid.

Review of Azimuth and Northpoint Forecasts for Manston – August 2017

6.9 In this report, Avia conclude that the Azimuth and Northpoint forecasts are *"highly ambitious"* and that *"the likelihood of these forecasts being realised is very low"*[68]. Avia do not, themselves present any updated forecasts of their own in this report. They make clear that neither report presents *"a credible case"* sufficient for Avia to change its view on the likelihood of viable commercial operations being attained at Manston Airport.

6.10 Avia conclude that:

> *"We remain of the view that whilst Heathrow Airport continues to offer substantial freight capacity to an extensive global network, and Stansted Airport offers capacity for air freighter movements, the London air freight market has capacity to grow without the re-introduction of capacity at Manston Airport. Freight Forwarders have invested heavily in infrastructure around the UK's core cargo airports and carriers have developed their networks as such. Without clear value drivers that support relocating services to Manston Airport, the case remains to be made that demand exists for a freight facility at Manston Airport.*
>
> *Provision of capacity alone is no guarantee of financial success, a view reinforced by the empirical evidence of multiple failed attempts to develop profitable aviation operations at Manston Airport."*[69]

This accords with our view.

6.11 Like ourselves, Avia point out[70] that provision of infrastructure is not of itself sufficient to ensure a financially viable airport at Manston and that this will depend on the demand that can be attracted. Avia conclude, like ourselves, that *"Azimuth's report does not provide sufficient evidence of demand at Manston Airport from air freight operators to support the required investment in facilities and profit generation potential to re-establish Manston Airport as a going concern."*[71] Avia, like ourselves, highlight that if there had been a market for Manston to accommodate any overflow from Heathrow, this would have been evident prior to the Airport's closure in 2014. Avia also conclude[72], in relation to the extensive interviews carried out by Azimuth, that they largely address the overall issues of airport capacity in the South East of England and do not effectively explain why Manston, at the tip of Kent, would be an attractive solution for the UK air freight sector.

6.12 Avia also note that the other activities that Manston might attract, as suggested by interviewees, such as maintenance, repair and overhaul, aircraft dismantling, a fixed based operator for business aviation and the establishment of an integrator base could have been attracted previously if there was demand at Manston but that such demand was not evident. We concur that the reports of interviews set out by Azimuth do not constitute real evidence of actual demand for such facilities or the likelihood of them locating at Manston.

[68] Aviasolutions, *Review of Azimuth and Northpoint Forecasts for Manston*, August 2017, Executive Summary
[69] Ibid.
[70] Ibid, page 9.
[71] Ibid.
[72] Ibid, page 11.

6.13 Like ourselves, Avia point out that Azimuth's freight forecasts would suggest that Manston would be a major presence in the UK air freight market from Year 2[73] and that by the end of the period would be on a par with the UK's main freight hub at East Midlands by 2039. They go on to note that the methodology adopted by Azimuth to forecast cargo movements could be acceptable, which we take to mean a 'bottom up' movement driven approach. However, they caution that the primary data used (from the interviews) *"has significant potential to exaggerate or overstate the market"*[74]. As Avia note, the aspirations of the interviewees, that as we have noted earlier were largely local interests in Kent, would need to be tempered by commercial realism and the risks attaching to the operations put forward. Avia conclude, in relation to Azimuth's freight forecasts, that *"the probability of such an outcome remains very low"*[75]. We concur.

6.14 In overall terms, Avia conclude that there is nothing in the Azimuth analysis which would give rise to them changing the conclusions set out in their earlier 2016 report.[76]

6.15 Avia then go on to consider the Northpoint report, discussed further below, which was prepared as a direct rebuttal of their 2016 report. In the first instance, they note that they do not accept that the benchmark airports[77] cited by Northpoint as comparators for what Manston could be are relevant:

There are clearly structural and geographical reasons as to why each of these airports is different to the proposal for Manston Airport. As such, suggesting these are comparable benchmarks is not realistic. In order for Manston Airport to acquire the status of these airports it would need to demonstrate key elements of development, namely; commitments from key express players (DHL / UPS / FedEx / Amazon / Alibaba); an ability to operate night operations with few regulatory restrictions; and geographical advantages from nearby cities, industrial parks, and population centres.

We agree. These benchmark airports serve different roles, principally based around their selection by large integrators/distributors as main distribution hubs for large urban conurbations. These are simply not comparable to Manston and it would be misleading to believe otherwise.

[73] Ibid, Section 2.3.2.
[74] Ibid, Section 2.3.3.
[75] Ibid.
[76] Ibid, page 15.
[77] Alliance Fort Worth in Texas, USA, Hamilton Airport in Ontario, Canada, Bergamo in Italy, Liege in Belgium and Leipzig in Germany.

6.16 In relation to air freight forecasts, Avia again note RSP's reliance on our work for the Freight Transport Association. Again, Avia correctly interpret this work as being based on the assumption that *"freight growth is bellyhold focussed"* going on to note that our *"report also questions Boeing and Airbus' forecast growth rates, which are utilised in the long term growth forecast by Dr Dixon."*[78] Avia go on to note Northpoint's use of the 55,000 air cargo movements figure from our earlier work for Transport for London (2013) and cite Northpoint's claim that we asserted that Manston was the only realistic opportunity to accommodate this level of freighter movements if they were displaced. As we have discussed at length in Section 2, this is simply a misapplication of our 2013 work. Unsurprisingly, Avia could not find these figures in the 2015 report for the FTA.

6.17 Avia also highlight Northpoint's misinterpretation of the interaction between bellyhold and pure freighter demand. We agree with their conclusions in this regard, which explain why the market for more pure freighter operations to/from the UK is limited:

"AviaSolutions' experience in the freight industry is that many bellyhold operators can, when supply exceeds demand, reduce rates to such a level as to cover the marginal cost of freight plus a margin. The business is often operated as an addition to the passenger service, and therefore its real marginal costs are low. It is simply impossible for a freighter operator to reduce its rate to match this marginal cost and operate at profitably [SIC]*. Therefore, freighters tend to operate on thick routes where the economies of scale of a freighter operation can be realised. These routes are also curtailed by a non-related market, that of passenger demand. Where large scale passenger demand exists e.g. UK to USA, a residual effect of this is large scale freight capacity, which is unmatched to demand. The reverse can be seen on routes to the East, where passenger demand is less, but freight demand, particularly inbound to the UK, is high. As such, many freighters operate on these routings."*[79]

We agree that the extensive passenger based route network and the availability of bellyhold capacity limits the need for a substantial pure freighter operation to/from the UK, in contrast with other parts of the world where passenger air route networks are less developed. This is why global data on the demand for air freighters is simply not relevant in the UK context.

Northpoint

6.18 We have largely addressed key points of Northpoint's rebuttal of the original Aviasolutions work above on the basis of Avia's most recent report. We highlight here a few other key observations on Northpoint's *"The Shortcomings of the Avia Solutions Report and an Overview of RSP's Proposals for Airport Operation at Manston"* prepared for RSP.

6.19 As with Azimuth's work, the key criticism of this work is that it is based on assertion rather than evidence or systematic analysis of the potential market for Manston. As noted above, benchmark airports in the middle of Continental Europe or adjacent to major conurbations in the US and Canada do not provide robust examples of how Manston might develop given its geographic position. Northpoint set out that:

[78] Ibid, page 17.
[79] Ibid, Section 3.1.6.

"RSP's plans are centred on a developing a strategically important air cargo operation focused dedicated freighters importing and exporting a range of perishable and high-value/time-critical goods to markets in London and across the wider south-east." [80]

And that these operations would be supplemented by a *"modest"* passenger offering, a variety of business and general aviation activities as well as maintenance, repair, overhaul and aircraft dismantling activities. However, the report does not, itself set out how the scale of such activity could be assessed and whether it would, in combination, secure a viable operation.

6.20 In terms of forecasting the volume of air freight that Manston might secure, Northpoint make an unsubstantiated leap from noting the reasons why Heathrow is dominant in the market to asserting that the key determinant for pure freighter operations is the infrastructure provided at an airport and supply driven factors, noting that it is important that these latter are *"transparent"*[81]. We have already noted the lack of transparency in relation to the air cargo forecasts produced by Azimuth upon which RSP rely. Nor are the projections set out in Northpoint's Appendix A any more transparent in terms of how the estimated tonnage to be accommodated by freighter movements at Manston has been derived.

6.21 Although lacking transparency, it would appear that Northpoint, like Azimuth, have relied on Boeing's global forecasts for freight revenue tonne kilometres as a basis for projecting UK air cargo tonnage[82]. For the reasons set out in Section 2, this is inappropriate and will lead to a material overstatement of the overall market.

6.22 Like Azimuth, Northpoint see cross channel movement of air cargo as an opportunity for pure freighter operations at Manston[83] rather than simply the natural economic response to shortage of bellyhold capacity at Heathrow. Northpoint then seek to rely on our assessment of displaced tonnage equivalent to 55,000 annual movements by air cargo aircraft in 2050 from our 2013 work for TfL as corroborating evidence of Manston's potential[84]. This is to misrepresent the conclusions from this work, which indicated clearly that, in practice, there was unlikely to be a problem even if Heathrow did not get a third runway, albeit that there might be some additional trucking costs to make use of bellyhold capacity in Europe. This would still be cheaper for shippers than the alternative use of pure freighter aircraft from Manston or elsewhere. Furthermore, in assessing the scope for airports to accommodate more freighter aircraft[85], we do not agree with their assessment in respect of Stansted for the foreseeable future and Northpoint appear to ignore the main pure freight hub at East Midlands.

[80] Northpoint, *The Shortcomings of the Avia Solutions Report and an Overview of RSP's Proposals for Airport Operation at Manston*, paragraph 1.3.
[81] Ibid, paragraph 2.4.
[82] Ibid, paragraph 2.18.
[83] Ibid, paragraph 2.21.
[84] Ibid, paragraph 2.24.
[85] Ibid, paragraph 2.30.

6.23 In dismissing the potential for these other, established airports, Northpoint seek to highlight the constraining effect of night movement restrictions on air cargo operations. By inference, then, Northpoint appear to assume that Manston will not suffer from such restrictions so making it more attractive. This appears to be corroborated at Appendix A[86] where it is claimed that the presence of a logistics centre at Manston without significant night movement restrictions would be one of the attractions and a factor in the forecasts being attainable. However, it is our understanding that night movements will at best be limited to 8 per night and could be limited further if the promises of no night movements are upheld.

6.24 In relation to the potential in the aircraft maintenance and dismantling/recycling market[87], we note that these are activities being 'chased' by many airports. There is no analysis of competition nor of the likelihood of Manston capturing any of these activities in Northpoint's report. In any event, the level of activity generated by such activities is unlikely to make the difference between the Airport being viable or not.

6.25 Overall, Northpoint present no real evidence in its Conclusions[88] to substantiate why the operation at Manston could be viable. Its forecasts of cargo movement and passenger demand are no more transparent nor based on market analysis than those set out by Azimuth and do not justify why the RSP application would meet the tests set out in Section 23 of the Planning Act 2008. In general, we agree with Avia's conclusions regarding the robustness of this report.

[86] Ibid, Appendix A, A.8.
[87] Ibid, Section 4.
[88] Ibid, Section 5.

7 CONCLUSIONS

7.1 In this report, we have examined the case for RSP's proposed development at Manston Airport. Our overall assessment is that RSP have failed to provide their own evidence of the capability of Manston Airport and the amount by which their proposals would increase that capability by (all we have are forecasts which have no credibility as explained in this report). This results in glairing omissions in RSP's consultation material. This failure means that, in our opinion, the requirements in section 23 of the Planning Act 2008 (as amended) have not been satisfied. In essence, we would have expected RSP to be able to show:

- the capability of Manston Airport of providing air cargo transport services;
- the amount by which RSP is proposing to increase that capability by and thus the "new" capability; and
- a credible forecast for why that 'new' capability is required.

None of this information is provided by RSP.

7.2 RSP's case is principally based on circumstantial evidence presented in the Volumes I to IV of *Manston – A Regional and National Asset* prepared by Azimuth Associates. Much of the material upon which Azimuth seek to rely as the basis for the case for Manston relates to the economic costs to the UK if additional passenger hub capacity is not provided in the South East of England by 2050. This is not relevant to the specific question as to whether there would be sufficient demand for pure freighter aircraft movements to be operated to/from Manston in the foreseeable future.

7.3 The analysis presented by Azimuth shows a lack of understanding of the economics of the air freight market. This leads to a misinterpretation of work by ourselves, upon which Azimuth seek to rely to support their case. Just because there could be excess freight demand in 2050 in the absence of further runway capacity at the UK's main hub, it does not follow that displaced bellyhold freight will seek a more expensive pure freighter service from a relatively nearby airport over the use of available bellyhold capacity from a more distant airport which can be provided at a lower cost to the shipper with only marginal penalty in terms of time. Our previous work simply cannot be relied on to support RSP's case.

7.4 Fundamentally, Manston's past operation was economically inefficient due to the inherent lack of viability. Hence, reopening the Airport, in the face of a limited market, has the potential to damage the productivity of the UK aviation sector overall, particularly, as we have demonstrated in our own assessment of cargo demand for Manston in Section 3 that there are more economically efficient alternatives available for any freight displaced due to specific capacity constraints at Heathrow both now and in the future.

7.5 Whilst there may be a role for Manston, on the margin, providing some niche specialist air freight operations, the market for such services is small and often ad hoc, which will impact on the prospects for a viable operation of the Airport.

7.6 Manston is too peripheral for integrator operations serving the UK. Integrators have a strong preference for locations more centrally located in the UK with good road access to all of the major markets. The availability of land for warehouses, for example as suggested in terms of the use of the 'Northern Grasslands' part of the overall airport site, is far less important than a location central to the market and the availability of good road access, neither of which are characteristics of Manston. This would apply equally to the suggestion that Amazon might locate there or that the Airport could become a base for drone operations. It is simply in the wrong place to serve the market being in the far south east at the end of a peninsular, away from the main centres of population and distribution in the UK.

7.7 In the absence of hard market evidence of the need for Manston Airport, Azimuth undertook an interview survey to supplement the need case and inform the forecasts. However, the list of interviews was small, with few national players interviewed compared to a large number of local companies with something of a vested interest in seeing Manston re-opened. Even so, if anything, the views of those interviewed by Azimuth suggest that there would, at best, be a limited role for Manston. The one airline interviewed made clear that *"success at Manston depended upon identifying a niche market and becoming known for excellence. In particular, suggestions included a perishables centre, handling of live animals, easy access for charter flights, and handling cargo that is not necessarily straightforward"*. The scale of this opportunity was never quantified by Azimuth. It is clear, however, that the realistic expectation for Manston is for a small niche operation rather than as a general 'overspill' airport for London.

7.8 The outputs from these interviews are then used by Azimuth as a basis for postulating a number of cargo aircraft movements that might operate at Manston. However, it is simply not possible to relate the proposed services to be operated with the responses by the interviewees. There is a complete absence of any explanation for or justification of the services postulated. At the very least, there is a lack of transparency in the approach that needs to be explained so that consultees can understand the basis of what is proposed and to ascertain whether there is a credible forecast for why an increase in Manston's capability is required.

7.9 In our view, the Azimuth forecasts simply lack credibility. To illustrate this lack of credibility of the forecasts, in Year 2 (the first operational year), a cargo throughput of nearly 100,000 tonnes is forecast by Azimuth. This would make Manston the 5th largest freight airport in the UK in its first year after re-opening (compared to 2016 actual throughput at the other airports). This would place it close to the scale of freight operations at Manchester Airport, which includes a substantial amount of bellyhold freight. It would make Manston the 3rd busiest airport in the UK in terms of tonnage carried on dedicated freighter aircraft. This is simply not a credible proposition. This lack of credibility is important in reaching any decision under Section 23 of the Planning Act 2008 (as amended).

7.10 We have updated and further developed our analysis of the UK air freight market from than previously undertaken for TfL and the FTA, and upon which RSP seek to rely as corroboration of their own cargo movement forecasts. When properly interpreted, our forecasts of air freight demand and capacity across the UK as a whole, taking the role of bellyhold fully into account, show that there is plenty of freighter capacity at Stansted and East Midlands to the extent that there is a need for more pure freighter capacity. Overall, we conclude from this analysis that there will be no shortage of freighter capacity in the UK before 2040 (RSP's forecast assessment year) and that overspill from other airports would not provide a rationale for re-opening Manston.

7.11 Our initial assessment of the passenger market is that the throughput might, at best, be around half of that projected by RSP and, hence, given the dependence on passenger related income for the financial viability of airport operations, this will impact substantially on the viability of the proposal. The other activities suggested by RSP, such as business aviation, maintenance, repair and overhaul, and aircraft dismantling are highly competitive markets and, to the extent that Manston might attract any such operations, this are unlikely to contribute substantially to the overall viability of the Airport.

7.12 The existing infrastructure at Manston Airport, if made good, is capable of handling 21,000 annual air cargo aircraft movements[89]. The actual usage of that capability would depend on the pattern of operation and how the infrastructure was used on a day by day basis. Our assessment, therefore, provides essential missing information from RSP's materials to date which is necessary for the purposes of Section 23 of the Planning Act 2008 (as amended), for assessment purposes under the Environmental Impact Assessment Regulations and for consultation purposes.

7.13 Without prejudice to our view that demand to use Manston is not likely to be anything like 17,171 cargo aircraft movements a year, we have considered that the land required to accommodate such a number of movements. Our assessment is that the land required would be substantially less than shown on the RSP Master Plan and that the proposed land take is excessive and without justification in terms of the compulsory acquisition of the land. Any development required to handle 17,171 annual movements by air cargo aircraft can all be accommodated to the south of the B2050 and, even allowing for passenger operations and other activities, would not require all of the airfield land to the south of the road. Obviously, on the basis of more realistic forecasts of future demand, the area required to support the ongoing operation of the Airport would be materially smaller.

7.14 We can see no justification for the inclusion of the 'Northern Grasslands' within the DCO on the basis of it being for associated development as there will be little or no requirement for the relocation of freight forwarding activity from adjacent to the UK's main cargo hub at Heathrow to Manston and any requirement to support Manston operations could be accommodated south of the B2050. The development on the 'Northern Grasslands' site appears to be speculative commercial development which, based on the precedent at East Midlands Airport – the UK's principal airport for pure freighter operations – would be expected to be largely for non-aviation related uses.

[89] Based on an 18-hour operational day. Should a night time noise policy be agreed with Thanet District Council pursuant to the existing planning agreement that enabled a longer operational day and/or a number of scheduled night movements, then the capability could, in theory, be higher than 21,000 annual cargo aircraft movements.

7.15 In terms of the socio-economic implications of the proposed development, Azimuth has shown a lack of understanding of how such impacts should properly be calculated. Leaving aside the use of inappropriate multipliers, the impacts have been assessed at a national scale and should have taken displacement of activity from other airports fully into account, reducing the impacts below those stated. Furthermore, the assessment should have considered the impact on alternative uses of the site, including SHP's proposed mixed use development and the socio-economic benefits deriving therefrom. We have set out a more realistic and robust assessment, which shows that the local impacts within Kent, even on Azimuth's forecasts would be substantially less than claimed and it is these lower order effects which would need to be balanced with the environmental and impacts in assessing the acceptability of the proposed development.

7.16 Unsurprisingly, the socio-economic impacts associated with the Airport are reduced even further on the basis of more realistic forecasts of likely usage if it re-opened. The operation is simply of a much smaller scale. In Year 2, in generates 452 jobs, only 17% of the Azimuth estimate of 2,654. By Year 20, the differential is even larger, with the Azimuth estimates reaching over 30,000 jobs, but with our estimates at only just over 1,000.

7.17 Once again, the evidence presented by Azimuth on behalf of RSP cannot be relied upon. It is infected with the flaws in the traffic forecasting methodology identified previously but the approach to identifying socio-economic impacts is, in itself, badly flawed. The socio-economic impacts are, as a result, massively overstated. In any event, these benefits would not be realised if the Airport ceases operation again due to it not being commercially viable.

7.18 As well as the Azimuth reports which form the basis of RSP's case, we have also reviewed a number of other reports on the potential for Manston. In overall terms, we agree with Aviasolutions for Thanet District Council that there is little realistic prospect of the re-opening of Manston Airport being a commercially viable proposition. We have reviewed their original report and the more recent reports and concur with their views on the overall structure of the UK air cargo market, noting that they, unlike Azimuth, have correctly understood the implications of our 2015 work for the FTA. We do not accept Northpoint's rebuttal of the Aviasolutions work. Like Azimuth, Northpoint's work is largely aspirational without any robust evidence or analysis of the market. Northpoint, too, misinterpret our previous work for the FTA and TfL.

7.19 **In overall terms, then, we do not consider that the case for the development of Manston Airport has been robustly substantiated. In any event, the capability of the existing infrastructure at the Airport, once made good in line with existing planning consents, is at least 21,000 annual air transport movements by air cargo aircraft. This means that, in practice, RSP are seeking permission to increase the number of cargo air transport movements that Manston Airport is capable of handling from 21,000 to at least 31,000 a year, well beyond the level assessed in the PEIR. Indeed, RSP's consultation material does not provide any detail as to what the increase in capability would be as a result of its proposals (i.e. the increase in capability as a result of its proposed alteration to Manston Airport). As a minimum, the increase in capability would be to 31,000 annual air transport movements by cargo aircraft, but in our view their proposals would result in a significantly higher 'new' capability which is not revealed or assessed by RSP.**

APPENDIX A

York Aviation

Transport for London

Note on Freight Connectivity

1. This note explains the approach taken to estimating the number of pure freighter air transport movements at the London airports in 2050 under three different scenarios of capacity growth:

   - ✈ Maximum use of existing capacity;
   - ✈ 2+2+2 – additional runways at each of Gatwick and Stansted;
   - ✈ New 4 runway hub.

2. The number of additional freighter movements required depends on the volume of passenger flights providing bellyhold capacity under the different scenarios. Under the constrained Max Use scenario, 48,000 pure freighter movements could be required, up from 14,000 at the London airports today. As there would be no spare runway capacity at the main London airports, this capacity would need to be provided from smaller airports serving the London area or from regional airports, with loss of economies of scale and producer efficiency, or through trucking to alternative hubs in Europe with implications for speed of transit.

3. With the provision of additional runways, increased bellyhold capacity reduces the number of additional freighter movements required to 28,000 and 21,000 respectively under the 2+2+2 and 4 runway hub scenarios. In both cases, we believe there will be sufficient runway capacity available to accommodate these freighter movements, albeit the 2+2+2 scenario will still result in dispersal of air freight capacity across a range of airports with the consequent loss of economies of scale and efficiency which could be attained at a single hub.

Freight Volumes

4. In 2012, the London airports handled 1,805,761 tonnes of freight[1]. Only 17% of this freight was flown on pure freighter aircraft. 83% was flown in the bellyhold of passenger aircraft. This may be as a result of limited capacity for freighter operations at Heathrow, where the bulk of air freight consolidation activity is concentrated. However, it may equally reflect the scale of bellyhold capacity offered at Heathrow, which reduces the need for pure freighter capacity to serve the London market as a whole.

5. Using data from ACI EUROPE[2], the volume of freight flown from the London airports is compared with that flown from other key European cities in Table 1.

[1] CAA Airport Statistics.
[2] The small discrepancy to CAA Statistics is noted but it is not considered to be material. The * against Hahn indicates estimated freight taken from airport's own website.

Table 1

	Tonnes
Heathrow	1,464,596
Gatwick	97,565
Stansted	214,904
Luton	29,637
London	**1,806,702**
Paris CDG	1,935,180
Paris Orly	94,700
Paris	**2,029,880**
Frankfurt	1,986,180
Frankfurt Hahn*	223,000
Frankfurt	**2,209,180**
Amsterdam	1,483,450
Milan MXP	405,858
Milan LIN	15,513
Milan BGY	116,733
Milan	**421,371**
Brussels	394,870
Luxembourg	614,906
Madrid	359,360
Zurich	281,683
Vienna	178,128
Dublin	102,717
Lisbon	90,264
Helsinki	176,987

6. There is no clear evidence that London is currently disadvantaged in terms of air freight capacity as the majority of freight is flown from Heathrow in the bellyhold of passenger aircraft rather than in pure freighter aircraft. To the extent that there is a need for freighter capacity, it can be provided at Stansted where there is ample spare capacity for additional movements and areas are set aside to increase aircraft parking and freight handling facilities if required. Although it is possible that limitations on bellyhold capacity at Heathrow may force greater trucking of freight to Europe, this is not evident from a comparison of overall air freight carried compared to other major European countries. In any event, the fact that freight is trucked rather than flown to Europe may have only a marginal impact on total transit times and, hence, limited economic detriment.

7. As well as the main city airports, there are a number of other specialist freight airports in both the UK and western Europe. Those handling over 75,000 tonnes in 2012 are shown in Table 2.

Table 2

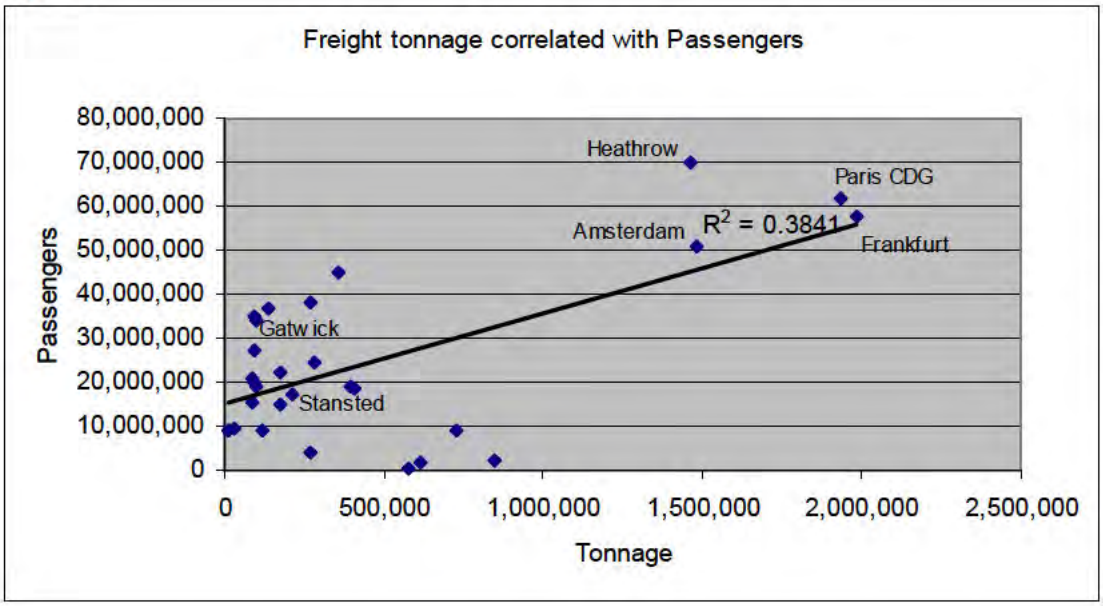
	Tonnes
Manchester	97,215
East Midlands	267,350
Cologne	730,040
Munich	272,203
Dusseldorf	86,729
Leipzig	846,086
Rome	135,777
Liege	577,226

8. Overall, on the basis of substantial air freight flows recorded by ACI EUROPE, the UK handled around 2.2 million tonnes of flown freight, France a similar amount, Italy around 600,000 tonnes and Spain around 500,000 tonnes. This does not suggest that the UK is disadvantaged in terms of freighter capacity overall currently.

9. However, the role of the low countries and Germany in acting as the major freight centre in western Europe is noticeable. In total, the main German freight airports handled almost 4.2 million tonnes of freight in 2012 which, when combined with the Netherlands and Benelux countries, amounted to 7.2 million tonnes of air freight flown. These airports have developed major and specialist air freight roles, with freight being trucked from all over Europe to feed these freight hubs. The integration of trucking with air freight should not be overlooked, even within the UK. In practice, it is unlikely that the UK could replicate this role, even with unconstrained airport capacity, due to its island location on the western edge of Europe.

10. There is some correlation between air freight flown to/from an airport and passengers carried as shown in Figure 1 below but this relates in large part to belly hold capacity. Figure 1 shows the correlation between flown freight and passengers across 29 European airports in 2012 as recorded by ACI EUROPE and which were either major airports in terms of freight handled or secondary airports serving the same cities.

Figure 1



Freighter Operations

11. The pattern of freighter operations is complex. As well as air freight carried in the bellyhold of passenger aircraft, there are freight charters for specialist and ad hoc consignments and large numbers of flights by the integrators (DHL, Fedex, UPS) etc. Obtaining detailed timetable information for freight operations is not possible as most do not publish timetables. Only scheduled freighter operations are shown in OAG and there is some uncertainty over whether this data is comprehensive.

12. Using OAG data for the week of 17th June 2013, the London airports have 49 scheduled freighter departures (98 freighter movements). According to CAA statistics for 2012, there were just over 14,000 freighter aircraft movements at the London airports or around 270 per week. This suggests that the OAG recorded movements account for only around 37% of total freighter aircraft movements to/from the London airports.

13. Similar data has been extracted for other western European airports. The table in Appendix A summarises the main pattern of freighter departures at airports with more than 30 freighter departures per week. This table also includes the principal UK freight airports and secondary airports serving major cities which in combination had more than 30 scheduled freighter departures per week in June 2013.

14. The number of scheduled freighter departures at the main freight airports is summarised in Table 3 along with the freight tonnage handled and passengers carried. It is evident that there is no clear correlation between freight tonnage handled and the weekly number of scheduled departures. This is illustrated in Figure 2. Amsterdam and Frankfurt have a high number of scheduled movements relative to the total volume of air freight whilst Paris and Heathrow handle similar volumes of air freight but with significantly fewer scheduled movements. We believe that the principal reason for these differences is in the relative importance of bellyhold freight but also the extent to which integrator activity is present; for example Fedex has its principal European hub in Paris and its movements are not recorded in OAG.

Figure 2

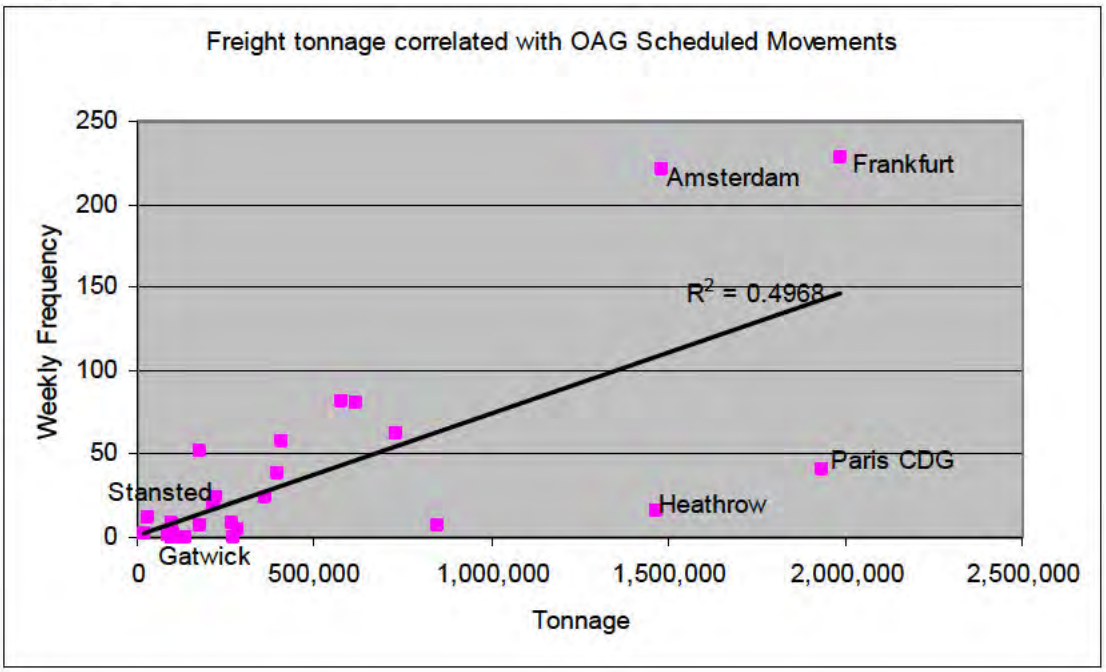


Table 3

	Freight tonnes	Pax	2013 wk freighters
Heathrow	1,464,596	70,038,804	16
Gatwick	97,565	34,222,405	0
Stansted	214,904	17,463,794	21
Luton	29,637	9,630,128	12
Manchester	97,215	19,841,747	8
East Midlands	267,350	4,086,849	9
Paris CDG	1,935,180	61,611,934	41
Paris Orly	94,700	27,232,263	0
Frankfurt	1,986,180	57,520,001	228
Frankfurt Hahn*	223,000		24
Cologne	730,040	9,280,070	62
Munich	272,203	38,360,604	0
Dusseldorf	86,729	20,833,246	1
Leipzig	846,086	2,279,221	7
Amsterdam	1,483,450	51,035,590	221
Milan MXP	405,858	18,522,760	58
Milan LIN	15,513	9,176,997	3
Milan BGY	116,733	8,888,017	0
Rome	135,777	36,980,161	0
Brussels	394,870	18,943,688	38
Liege	577,226	300,813	82
Luxembourg	614,906	1,912,806	81
Madrid	359,360	45,175,501	24
Barcelona	96,519	35,131,771	2
Zurich	281,683	24,751,649	5
Vienna	178,128	22,165,650	52
Dublin	102,717	19,096,572	1
Lisbon	90,264	15,301,236	1
Helsinki	176,987	14,859,981	7

*2011 data from airport website

15. Examination of the detailed information set out in Appendix A also shows how complex the pattern of freighter operations actually is. Few freighters, particularly those serving markets beyond Europe, operate on a strict point to point basis. Many transit more than one of the main European freight airports and a number of points overseas. Examination of arriving freighter patterns also reveals that the inbound pattern does not necessarily mirror the outbound pattern. Hence, there is already considerable flexibility to add new points if the market warrants.

16. Some freighters operate simple round trips. Others operate on a triangular basis, e.g. Lufthansa operating Frankfurt-Dallas-Detroit-Dallas-Manchester-Frankfurt. Inbound freight from the US to Manchester will be flown direct but outbound freight will transit Frankfurt. Other freighters operate effectively round the world journeys, e.g. British Airways operating Chicago-Houston-Stansted-Dammam-Dubai-Shanghai.

17. There is simply no way of knowing how much of the freight capacity on such aircraft is assigned to or used by freight originating in or destined for any airport, which may vary day by day. Freighter departures are, hence, not a reliable proxy for how much air freight capacity is available to uplift goods to and from any country or city.

18. Overall, our analysis of current freighter operations suggests that it is hard to distinguish a relationship between freighter movements and tonnage of freight carried.

19. Nor is it evident that the UK air freight capability is adversely affected today by shortage of capacity at Heathrow. There is ample spare airport capacity at Stansted for pure freight aircraft to the extent that there is demand for such aircraft operations given the amount of bellyhold capacity available at Heathrow. The volume of freight uplifted probably reasonably reflects the UK market, allowing for transit freight, and the limitations of the UK acting as a hub for freight trucked from continental Europe based on its geographic position. The principal issue is one of producer efficiency as a consequence of splitting locations, with the bulk of freight forwarding/consolidator activity being located around Heathrow and freight needing to be trucked to Stansted, Luton, or continental hubs. Whilst concentrating all freight activity at the main hub might make additional freighter flights viable by facilitating onward connections between bellyhold freight and pure freight operations, it is not clear the extent to which this would result in higher volumes of air freight being carried to/from the UK (as distinct from transit freight) as the UK does not appear to be significantly underperforming in aggregate terms compared to countries such as France, Spain or Italy.

Predicting Future Freighter Operations

20. In order to predict the volume of freighter activity in future at the London airports, we have developed a simple spreadsheet as set out in Table 4.

21. We have first projected forward total flown freight demand to and from London[3] on the assumption that it grows in line with overall passenger demand growth at 2.1% per annum in the absence of any specific forecasts of freight tonnage from DfT. We note that the DfT 2013 forecasts only give information for expected growth in pure freighter movements at 0.4% per annum but the basis of this is not clearly stated. Prima facie, this appears to understate unconstrained demand for pure freighter movements over the period to 2050.

22. In contrast, OE have identified that the expected average freight growth to and from Europe would be in the range 3.37% (Boeing) to 3.99% (Airbus). However, this would lead to substantially higher estimates of freight tonnage growth than passenger growth. Recent trends would suggest this to be unlikely so we have adopted the more cautious approach of using the same underlying growth as for passengers.

23. We have then estimated the bellyhold capacity offered at the London airports in 2050 based on the current average tonnage carried per international movement in 2012 at Heathrow, including both EU and non-EU flights, based on CAA Airport Statistics assuming average tonnes per movement increase by 0.5% per annum. This allows us to estimate the residual volume of freight under each scenario which would need to be accommodated on pure freighter aircraft.

[3] This is a simplifying assumption as it assumes the same proportion of UK regional air freight is trucked to London for uplift and the same proportion of freight is trucked to the continental freight hubs. On balance, this is likely to be a neutral assumption for the situation of unconstrained hub capacity as the proportion of regional freight flying direct from major regional airports might be expected to increase, particularly as more long haul flights develop, whilst the proportion being trucked from London to Europe might be expected to decrease with unrestricted capacity available.

Table 4

	2012	2050 Max Use	2050 2x2x2	2050 New Hub
Freighters 2012	14,123			
Freight in Freighters	310,022			
Total Freight	1,805,761	3,977,759	3,977,759	3,977,759
Tonnes per freighter	21.17	25.59	25.59	25.59
Tonnes per international bellyhold movement London	1.76	2.13	2.13	2.13
Forecast International Movements	834,725	1,051,034	1,298,981	1,375,452
Bellyhold Capacity	1,469,116	2,235,836	2,763,285	2,925,960
Freighter tonnage required		1,741,923	1,214,474	1,051,799
Freighter movement		68,077	47,463	41,106
Additional Freighters Required		53,954	33,340	26,983

24. We estimate that the number of freighters required to accommodate projected air freight demand would rise from 14,000 in 2012 to around 41,000 in the New Hub case, 47,000 in the 2+2+2 case and 68,000 in the Max Use case. In both the New Hub case and 2+2+2 case, we estimate there will be sufficient runway capacity available to accommodate these movements at 2050, at the New Hub and/or Stansted respectively. However, in the Max Use case, the London airports will, by definition, be full with passenger aircraft movements. Whilst we believe there will still be a small number of pure freighter operations accommodated in off-peak periods (as today at Heathrow), the number of freighter operations will be constrained.

25. It is reasonable to assume that around 14,000 freighters a year could still be accommodated in the vicinity of London by using capacity at airports such as Manston, which already handles some long haul freighters. However, capacity equivalent to an additional 54,000 freighter movements per year could be required to ensure demand is met, although this could be mitigated to an extent if the freighter capacity was prioritised for freight to and from the UK with less transit freight.

26. A key question is the extent to which such freighter capacity would be provided at airports such as East Midlands, Manchester and Birmingham. This could serve to reduce trucking movements from the regions to London, as take place today, with environmental benefits but it would reduce producer efficiency through split operations. In the absence of detailed data regarding freight trucking movements today, it is difficult to determine whether this would have positive or negative impacts overall..

27. In terms of the specific destinations of future freighter movements, our analysis of the existing patterns of service reveals the difficulty of defining market demand and aircraft routings. We do not believe it is sensible to attempt to determine the future geographic split by destination in either the constrained or unconstrained cases as a single freighter may serve a variety or markets as necessary. In the constrained case, it is likely that more freight would be trucked to the continental hubs as well as to UK regional points, which would potential add to shipment costs.

Conclusions

28. Overall, we have made a best estimate of the number of freighter aircraft movements likely to be using the London airports (or near London airports) under each of the capacity scenarios. These are as follows:

- ✈ Maximum use of existing capacity 14,000
- ✈ 2+2+2 – additional runways at each of Gatwick and Stansted 33,000
- ✈ New 4 runway hub 27,000

29. In the latter two cases, our assessment is that, across both bellyhold capacity and pure freighter activity, there would be sufficient capacity to meet expected demand for air freight to and from the UK. Our estimates for additional freighter capacity are substantially above those made by DfT. Hence, to the extent that our baseline is understated (although we do not believe this to be substantial) due to the current patterns of trucking freight to the continent, this will offset any overstatement as a consequence of assuming higher growth than DfT and by reductions in the amount of trucking to London from regional airports due to expected growth in their own freighter operations over the period to 2050.

30. The key difference between these two scenarios would be in terms of the efficiencies and economies of scale gained by the industry arising from the concentration of freight activity at a single hub. In both cases, the overall volume of air freight to and from the UK is expected to be broadly the same, although the actual freight carried including transit freight would be higher in the hub case. However, under the new hub scenario, savings from greater efficiency may be passed onto users, so reducing shipping costs and facilitating trade leading to higher freight volumes, but it is beyond the scope of the current exercise to assess this.

31. In the constrained, max use, case, there would be severe limitations of pure freighter movements at the London airports, which could amount to around 26% of the required air freight capacity to/from London. The extent to which this would act as a limitation on overall air freight volumes would depend on the extent to which the freight is still carried from regional airports or by truck. Clearly this would impact on the cost/efficiency of shipment, which in turn could impact on freight volumes carried. Again, it is outside the scope of the current exercise to assess these effects.

32. Overall, in assessing the economic value for air freight between the scenarios, the main difference is likely to lie in producer costs passed through to users and the impact that would have on business costs and hence output/freight generated. It would not be safe to assume that the reduction in cargo ATMs at the London airports necessarily translates to lost shipment value in its entirety.

23 May 2013

Appendix A

				Total Airport	Total City	Total Country
Heathrow	Amman	1				
	Amsterdam	1				
	Amsterdam	1	onwards to Sharjah and Singapore			
	Brussels	1				
	Copenhagen	1				
	Copenhagen	1	onwards to Sharjah and Singapore			
	Dubai	1				
	Frankfurt	1				
	Leipzig	1				
	Lisbon	1				
	Milan	1				
	Milan	2	onwards to Hong Kong			
	Paris	1	onwards to Delhi and Hong Kong			
	Seoul	2		16	49	71
Stansted	Amsterdam	1	originates in Bogota, Puerto Rico			
	Amsterdam	2	originates in Miami, Buenos Aires, Bogota and Puerto Rico			
	Cologne	1	onwards to Madrid and Johnannesburg			
	Cologne	1	onwards to Tbilisi			
	Cologne	1	onwards to Tbilisi and Delhi			
	Dammam	1	originates in Chicago and Houston, onwards to Dubai and Shanghai			
	Dubai	1	onwards to Hong Kong			
	Frankfurt	1	originates in Chicago and Atlanta, onwards to Shanghai			
	Frankfurt	2				
	Frankfurt	1	onwards to Chicago			
	Frankfurt	1	onwards to Hong Kong			
	Frankfurt	2	originates in Seoul and Moscow			
	Frankfurt	1	originates in Atlanta, onwards to Delhi and Hong Kong			

	Frankfurt	2	originates in Moscow, onwards to Seoul			
	Luxembourg	2	originates in Hanoi and Hong Kong			
	Zaragoza	1	onwards to Bahrain and Hong Kong	21	49	71
London Luton	Frankfurt	3				
	Istanbul	1				
	Istanbul	2	originates in Paris			
	Istanbul	2	originates in Cologne			
	Milan	4		12	49	71
Manchester	Amsterdam	1	onwards to Dubai and Hong Kong			
	Brussels	1	onwards to Dubai and Hong Kong			
	Dubai	1	originates in Amsterdam, onwards to Hong Kong			
	Frankfurt	2	originates in Detroit and Dallas			
	Frankfurt	1	onwards to Dubai and Hong Kong			
	Frankfurt	1	originates in Toronto and Houston			
	Milan	1	onwards to Hong Kong	8	8	71
East Midlands	Frankfurt	1				
	Keflavik	2	originates in Liege			
	Keflavik	2				
	Liege	2	originates in Keflavik			
	Paris	1		8	8	71
Prestwick	Los Angeles	1	originates in Luxembourg, onwards to Seattle			
	Luxembourg	1	originates in New York and Houston			
	Luxembourg	1	orginates in Los Angeles and Seattle			
	Paris	2	originates in Chicago			
	Seattle	1	orginates in Luxembourg, onwards to Calgary	6	6	71
Amsterdam	Abu Dhabi	4				
	Abu Dhabi	1	onwards to Taipei			
	Almaty	2	onwards to Hong Kong, Delhi, Sharjah			
	Bahrain	1	onwards to Mongolia, Hong Kong, Chennai			
	Baku	2	onwards to Kuala Lumpur			

	Bangalore	1	onwards to Singapore
	Beijing	7	
	Beirut	2	
	Budapest	2	onwards to Moscow
	Chengdu	4	
	Chennai	1	originates Nairobi, onwards to Singapore
	Chennai	1	originates in Chicago and Atlanta, onwards to Singapore
	Chicago	2	originates in Doha
	Chicago	7	
	Chongqing	2	onwards to Shanghai
	Copenhagen	1	originates in Nairobi, onwards to Sharjah and Singapore
	Copenhagen	2	onwards to Sharjah and Singapore
	Curitiba (Br)	1	onwards to Sao Paulo
	Dacca	1	originates in Nairobi, onwards to Singapore
	Doha	1	originates in Chicago
	Doha	3	
	Dubai	2	
	Dubai	1	originates in Eldoret and Nairobi
	Dubai	1	originates in Nairobi
	Dubain	1	originates in Manchester, onwards to Hong Kong
	Entebbe	1	onwards to Nairobi
	Frankfurt	1	originates in Hong Kong
	Frankfurt	1	onwards to Mumbai and Hong Kong
	Gothenburg	3	onwards to Dubai
	Guangzhou	5	
	Harare	3	onwards to Nairobi
	Heathroiw	1	
	Hong Kong	7	
	Houston	7	

	Jeddah	2	
	Johannesburg	1	onwards to Dar-Es-Salaam and Nairobi
	Khartoum	2	onwards to Nairobi
	Kigali	1	onwards to Nairobi
	Kuala Lumpur	1	
	Los Angeles	4	
	Luxembourg	1	originates in Libreville, Brazzaville, Nairobi
	Manchester	1	onwards to Dubai and Hong Kong
	Mexico City	7	
	Miami	2	onwards to Buenos Aires, Bogota, Puerto Rico and Stansted
	Miami	1	onwards to Buenos Aires, Quito and Guayaquil
	Miami	2	onwards to Santiago, Quito, Bogota and Puerto Rico
	Miami	2	onwards to Santiago, Quitoand Guayaquil
	Milan	3	originates in Tokyo
	Milan	2	onwards to Moscow
	Milan	4	onwards to Tokyo
	Mongolia	2	onwards to Hong Kong and Chennai
	Moscow	2	
	Moscow	2	onwards to Shanghai
	Nairobi	1	
	New York	3	orginates in Bahrain
	New York	1	originates in Bahrain
	New York	7	
	Paris	1	onwards to Mumbai and Hong Kong
	Puerto Rico	1	onwards to Bogota
	Puerto Rico	2	onwards to Quito
	Riyadh	1	
	Riyadh	2	onwards to Sharjah, Singapore and Kuala Lumpur

	Santiago	1				
	Sao Paulo	2	onwards to Buenos Aires and Santiago			
	Sao Paulo	1	onwards to Curitiba and Santiago			
	Seattle	1				
	Seoul	7				
	Shanghai	21				
	Sharjah	1	originates in Heathrow, onwards to Singapore			
	Sharjah	2	onwards to Guangzhou			
	Sharjah	1	onwards to Muscat and Hong Kong			
	Stockholm	2	originates in Seoul			
	Stockholm	4	onwards to Seoul			
	Taipei	1				
	Tel Aviv	1				
	Tenerife	1	onwards to Sao Paulo, Quito and Bogota			
	Tenerife	3	onwards to Sao Paulo, Quito and Guayaquil			
	Tianjin	15	onwards to Shanghai			
	Tokyo	1	originates in Frankfurt Hahn			
	Tokyo	5				
	Toronto	4				
	Tripoli	1				
	Vienna	3	onwards to Shanghai	221	221	221
Brussels	Amman	1	onwards to Jeddah			
	Chennai	1	originates in Los Angeles and Dallas, onwards to Singapore			
	Dammam	1				
	Dubai	3	originates in New York			
	Dubai	1	originates in Frankfurt, onwards to Hong Kong			
	Dubai	1	originates in Manchester, onwards to Hong Kong			
	Heathrow	1				
	Istanbul	1	originates in Jeddah			
	Kolkata	1	originates in Los Angeles, onwards to Singapore			
	Milan	2	originates in Riyadh			

			originates in			
	Milan	1	Jeddah			
	Mumbai	1	orginates in Los Angeles and Chicago, onwards to Singapore			
	New Guinea	1	onwards to Seoul			
			originates in			
	New York	1	Jeddah			
			originates in Jeddah, onwards to			
	New York	1	Houston			
	New York	6	originates in Dubai			
	Riyadh	1				
	Riyadh	1	onwards to Jeddah			
	Seoul	1	orginates in New York			
	Seoul	2	originates in New York			
			originates in Dallas, onwards to			
	Sharjah	2	Singapore			
	Sharjah	1	originates in Chicago and Dallas, onwards to Singapore			
	Taipei	1				
	Tianjin	1	onwards to Seoul			
			originates in			
	Vienna	2	Riyadh	36	36	118
Liege	Accra	2	onwards to Lagos and Addis Ababa			
	Addis Ababa	5				
	Bahrain	11	originates in New York			
			onwards to Tel			
	Bucharest	1	Aviv			
	Dubai	12	onwards to Hong Kong			
			onwards to			
	East Midlands	4	Keflavik			
	Entebbe	1				
	Istanbul	5				
	Keflavik	4				
			onwards to New			
	Keflavik	1	York			
	Lagos	2	onwards to Addis Ababa			
	Lagos	1	onwards to Ougadougou			
	Lagos	1	onwards to Port Harcourt			

	Lome	2	onwards to Congo, Addis			
	Luxembourg	1	Ababa			
	New York	1	originates in Tel Aviv			
	New York	2	originates in Tel Aviv			
	New York	5				
	Ougadougou	1	onwards to Congo			
	Shanghai	1				
	Shanghai	2				
	Siauliai Lithuania	1				
	Singapore	1				
	Tel Aviv	3	originates in New York			
	Tel Aviv	1	originates in Chicago			
	Tel Aviv	6				
	Vienna	5		82	82	118
Luxembourg	Abidjan	1	onwards to Accra			
	Abu Dhabi	1	onwards to Taipei			
	Almaty	1	onwards to Hong Kong			
	Atlanta	1	onwards to Chicago			
	Atlanta	1				
	Atlanta	2	originates in Doha, onwards to Houston			
	Baku	1	onwards to Almaty and Shanghai			
	Baku	1	onwards to Hong Kong			
	Baku	4	onwards to Shanghai			
	Baku	1	onwards to Singapore and Hong Kong			
	Baku	1	onwards to Singapore and Kuala Lumpur			
	Baku	2	onwards to Taipei and Bangkok			
	Beijing	1	onwards to Xiamen			
	Beirut	1	onwards to Amman and Hong Kong			

			onwards to Amman and
	Beirut	1	Istanbul
	Chicago	1	onwards to Atlanta
	Chicago	1	onwards to Los Angeles
	Congo	1	originates in Liege, onwards to Addis Ababa
	Dallas	1	
	Dammam	1	onwards to Saigon and Hong Kong
	Doha	1	onwards to Hanoi and Hong Kong
	Doha	1	onwards to Singapore and Kuala Lumpur
	Doha	1	originates in Houston
	Doha	1	originates in Chicago
	Dubai	1	onwards to Bangkok and Hong Kong
	Dubai	1	onwards to Hong Kong
	Frankfurt Hahn	3	originates in Shanghai
	Indianapolis	1	onwards to Chicago
	Indianapolis	1	onwards to Los Angeles, Calgary
	Johannesburg	3	
	Komatsu	2	onwards to Seoul
	Kuwait	2	onwards to Hanoi and Hong Kong
	Lagos	1	onwards to Port Harcourt and Kinshasa
	Libreville	1	onwards to Brazzaville
	Libreville	1	onwards to Kinshasa
	Los Angeles	1	onwards to Seattle
	Los Angeles	1	
	Mexico City	1	
	Mexico City	1	onwards to Guadalajara
	Miami	2	onwards to Houston
	Milan	1	onwards to New York and Chicago
	Milan	4	

	Ndjamena	1	onwards to Lagos			
	New York	1	originates in Tel Aviv			
	New York	1	orginates in Tel Aviv, onwards to Chicago			
	New York	1	onwards to Atlanta			
	New York	1	onwards to Houston			
	New York	1	onwards to Mexico City and Guadalajara			
	Prague	2	originates in Chengdu			
	Prestwick	1	onwards to Los Angeles and Seattle			
	Prestwick	1	onwards to Seattle and Calgary			
	Riyadh	1	onwards to Dammam and Hong Kong			
	Sao Paulo	1				
	Sao Paulo	2	onwards to Curitiba			
	Sao Paulo	1	onwards to Manaus			
	Seoul	1				
	Sharjah	1	onwards to Karachi			
	Singapore	1	onwards to Kuala Lumpur			
	Taipei	2				
	Tbilisi	2	onwards to Baku and Shanghai			
	Yerevan	1		80	80	80
Paris	Beirut	1				
	Cairo	1	onwards to Reunion			
	Chicago	5				
	Cologne	2	onwards to Istanbul			
	Delhi	1	originates in Heathrow, onwards to Hong Kong			
	Djibouti	1	onwards to Reunion			
	Hannover	4				

	Heathrow	1				
	Istanbul	1				
	London Luton	2	onwards to Istanbul			
	Mexico City	6				
	Milan	1	onwards to Delhi and Hong Kong			
	Mumbai	2	onwards to Hong Kong			
	Mumbai	1	originates in Amsterdam, onwards to Hong Kong			
	New York	1	onwards to Chicago			
	Niamey	1	onwards to Ouagadougou and Bamako			
	Njamena	1	onwards to Bangui, Brazzavile and Port Harcourt			
	Porto	1	onwards to Mexico City			
	Seoul	2				
	Shanghai	2	originates in Copenhagen			
	Shanghai	2				
	Tokyo	2		41	41	41
Cologne	Basle	4				
	Berlin	5				
	Bucharest	4				
	Bucharest	2				
	Istanbul	2	originates in Paris			
	Istanbul	2				
	Katowice	4				
	Keflavik	5				
	Ljubljana	4				
	Ljubljana	1	onwards to Zagreb			
	London Luton	2	originates in Istanbul			
	London Luton	2	onwards to Istanbul			
	Madrid	1	originates in Stansted			
	Prague	5				
	Sofia	1				
	Tblisi	1	originates in Stansted			

	Tblisi	1	originates in Stansted, onwards to Delhi			
	Tel Aviv	12				
	Zagreb	4		62	62	304
Frankfurt Hahn	Almaty	1	originates in New York			
	Almaty	6	originates in New York, onwards to Shanghai			
	Amsterdam	1	onwards to Tokyo			
	Amsterdam	1	originates in Tokyo			
	Atyrau	1	onwards to Almaty			
	Baku	3				
	Beijing	3				
	Chatearoux	1	onwards to Kabul			
	Doha	2				
	Johannesburg	2				
	Milan	1	onwards to Tokyo			
	Toronto	1	onwards to Mexico City			
	Yerevan	1		24	242	304
Frankfurt	Abu Dhabi	5				
	Almaty	1				
	Almaty	1	onwards to Guangzhou			
	Almaty	1	onwards to Hong Kong			
	Almaty	2	onwards to Shanghai			
	Amman	2				
	Amsterdam	1	originates in Hong Kong and Chennai			
	Atlanta	4				
	Baku	1	onwards to Bangkok and Kuala Lumpur			
	Baku	2	onwards to Kuala Lumpur			
	Bangalore	3	onwards to Chennai			
	Bangalore	1	onwards to Hyderabad and Guangzhou			
	Bangkok	2				
	Beijing	3	onwards to Shanghai			
	Brussels	1	onwards to Dubai and Hong Kong			

	Cairo		3		
	Chicago		7		
	Chicago		1	onwards to Los Angeles	
	Chicago		4	onwards to Mexico City	
	Chicago		2	onwards to Mexico City and Guadaljara	
	Chicago		1	originates in Stansted	
	Coventry		10		
	Dakar		3	originates in Dubai, onwards to Sao Paulo	
	Dammam		2	onwards to Sharjah and Hong Kong	
	Delhi		4	onwards to Singapore and Bangkok	
	Delhi		1	originates in Atlanta and Stansted, onwards to Hong Kong	
	Detroit		2		
	Doha		1		
	Dubai		1	originates in Lagos and Accra	
	Dubai		4	originates in Sao Paulo and Dakar	
	Dubai		3		
	Dubai		1	originates in Dusseldorf	
	Dubai		1	originates in Manchester, onwards to Hong Kong	
	East Midlands		1		
	Heathrow		1		
	Helsinki		1		
	Hong Kong		3		
	Hong Kong		1	originates in Stansted	
	Istanbul		6		
	Istanbul		1	onwards to Tel Aviv	
	Jeddah		1	onwards to Sharjah, Hyderabad and Guangzhou	
	Kabul		1		
	Krasnojarsk		1		
	Krasnojarsk		6	onwards to Beijing and Seoul	
	Krasnojarsk		1	onwards to Seoul and Shanghai	
	Krasnojarsk	y		onwards to Shanghai	

	Krasnojarsk	7	onwards to Tokyo and Osaka
	London Luton	3	
	Madrid	4	
	Malta	1	
	Milan	1	originates in Hong Kong and Dubai
	Milan	1	onwards to Dubai and Hong Kong
	Milan	1	onwards to Hong Kong
	Moscow	10	
	Moscow	2	onwards to Tokyo
	Moscow	1	onwards to Tokyo and Seoul
	Mumbai	1	
	Mumbai	1	onwards to Chennai
	Mumbai	3	onwards to Hong Kong
	Mumbai	1	onwards to Hyderabad
	Mumbai	1	originates in Amsterdam, onwards to Hong Kong
	Nairobi	5	onwards to Johannesburg
	New York	5	
	Riyadh	3	
	Riyadh	1	onwards to Dammam
	Riyadh	1	onwards to Sharjah and Hong Kong
	Sao Paulo	3	
	Sao Paulo	1	onwards to Curitiba
	Sao Paulo	1	onwards to Curitiba, Quito and Puerto Rico
	Sao Paulo	2	onwards to Manaus, Quito and Puerto Rico
	Sao Paulo	2	onwards to Montevideo and Buenos Aires
	Seoul	1	originates in Vienna
	Seoul	2	originates in St Petersburg
	Seoul	12	

	Seoul	2	originates in Atlanta and Stansted			
	Seoul	1	originates in Moscow and Vienna			
	Shanghai	1	originates in Chicago, Atlanta and Stansted			
	Shanghai	18				
	Sharjah	2	onwards to Kolkata and Hong Kong			
	Stockholm	1	onwards to Dubai and Hong Kong			
	Stockholm	4	onwards to Seoul			
	Taipei	3				
	Tel Aviv	3	onwards to Istanbul			
	Toronto	1	onwards to Houston	218	242	304
Milan	Abu Dhabi	2				
	Almaty	1	onwards to Osaka and Hong Kong			
	Baku	1				
	Dammam	1				
	Delhi	1	originates in Paris, onwards to Hong Kong			
	Doha	2				
	Dubai	2	onwards toHong Kong			
	Dubai	1	originates in Frankfurt, onwards to Hong Kong			
	Heathrow	5				
	Hong Kong	1	originates in Frankfurt			
	Hong Kong	2	originates in Heathrow			
	Hong Kong	1	originates in Manchester			
	Istanbul	1				
	Istanbul	2	originates in Lagos			
	Istanbul	1	orginates in Tirana			
	Jeddah	1				
	Luxembourg	1	originates in Chicago and Los Angeles			
	Luxembourg	4				
	Luxembourg	1	orginates in Chicago and New York			
	Madrid	1				
	Moscow	2	originates in Amsterdam			

	New Guinea	1	onwards to Seoul			
	Osaka	1	onwards to Hong Kong			
	Riyadh	1				
	Sao Paulo	1				
	Seoul	1	originates in Uzbekistan			
	Seoul	9				
	Shanghai	4				
	Tokyo	4	originates in Amsterdam			
	Tokyo	1	originates in Frankfurt Hahn	57	57	57
Vienna	Amman	1				
	Copenhagen	2	orginates Seoul			
	Frankfurt	1	orginates Seoul			
	Istanbul	2				
	Kiev	5				
	Liege	5				
	Milan	3	orginates Seoul			
	Moscow	2	orginates Seoul and onwards to Gothenburg or Frankfurt			
	Oslo	3	orginates Seoul			
	Oslo	6				
	Riyadh	2				
	Seoul	1	via Frankfurt			
	Seoul	3	via Gothenburg			
	Seoul	1	via Tel Aviv			
	Seoul	4	via Copenhagen			
	Seoul	1	originates Moscow			
	Shanghai	3	originates Amsterdam			
	St Petersburg	1	orginates Seoul and onwards to Gothenburg			
	Tel Aviv	1	orginates Seoul			
	Timosoara	5		52	52	52

APPENDIX C: INDEX OF AZIMUTH PARAGRAPH REFERENCES IN YORK AVIATION NOVEMBER 2017 REPORT

York Aviation (YAL) Reference and Para	Azimuth Old Para	Azimuth New Para	Implications / Summary of Change
2.3 – "Although Azimuth state at paragraph 1.2.1 of Volume 1 "*RiverOak, who specialise in identifying market opportunities, has identified the substantial need for additional and specialised airport capacity for dedicated freighters in the southeast of England*", we are unaware of any other research upon which RSP rely. All other documents produced in support of the prospective DCO appear to rely on the work of Azimuth".	Paragraph 1.2.1 of Volume I in section "**RiverOak's vision for Manston Airport**"	Para 1.2.1 of Vol I in section "**RiverOak's vision for Manston Airport**"	Re-worded *"RiverOak, whose directors specialise in……."*
2.10 – "Furthermore, the reference at paragraph 5.1.4 to concern expressed in the Aviation Policy Framework regarding the implications of capacity shortfalls on the range of destinations served does not, as Azimuth infer, indicate a need for additional aircraft movements by dedicated freighter aircraft as these would require a concentration of freight flows to a specific destinations to fill a single aircraft at a time. Rather, the Aviation Policy Framework refers to the need for a wide range of global destinations being available at the UK's national hub airport, offering	Paragraph 5.1.4 of Volume I in section "**Political Setting**"	Para 2.3.8 in Vol I in section "**Political Setting**"	Original report made reference to Aviation Policy Framework citing the circumstances where no additional airport capacity was provided. The updated report now refers to a quotation from the Airports NPS, which still relates to the circumstances in the absence of any additional capacity at the London airports.

York Aviation (YAL) Reference and Para	Azimuth Old Para	Azimuth New Para	Implications / Summary of Change
passenger and bellyhold capacity so as to maximise the choice and convenience for both passengers and shippers of airfreight. It is this variety of destinations and, importantly, the high frequencies of service that lead the market to favour a bellyhold hub and spoke system so that freight can reach its end destination in the most efficient and cost effective way possible."			
2.18 – "In this paper for TfL, we estimated the excess air freight that could not be accommodated in bellyhold capacity on passenger aircraft under different scenarios of additional capacity at the London airports and converted that excess to an equivalent number of freighter movements. The 54,000 potential additional freighter movements that Azimuth (and Northpoint) cite at paragraph 3.4.5 are the additional freight carrying capacity required in the event of there being no further runway capacity at any of the London airports (a severely constrained scenario) that is simply no longer realistic as we have set out above. Azimuth's (and Northpoint's) use of	Paragraph 3.4.5 of Volume I in section "**The need for air freight capacity in the South East**"	The point discussing TfL forecasts predicting that the South East will be short of capacity for around 54,000 air freight movements is made twice in the new report: Paragraph 4.2.8 in section "**Freight-focussed findings**"; Paragraph 5.1.8 in section "**Channel Crossings and Trucking**".	Point repeated in two sections.

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this figure as a potential market for Manston is misleading."			
2.19 – "The note then goes on to set out how this requirement for additional freight capacity might be met and the economic consequences. In the first instance, we noted that around 14,000 additional freighter movements could be accommodated in the London system if no capacity expansion takes place, and this included the use of additional available freighter slots at Stansted. Azimuth appear to have taken our inclusion of Manston, as an example of a smaller airport in the South East that could accommodate some movements, as an indication that it could play a substantial role, wrongly stating in the Executive Summary and at paragraph 3.4.5 that we said that Manston was expected to handle 14,000 freighter movements. Manston was given simply as an example of an airport with freighter activity at the time of writing (2013) with the potential to accommodate some additional movements (as we set out in Section 4 of this report, the	Paragraph 3.4.5 of Volume I in section "**The need for air freight capacity in the South East**"	Azimuth continue to claim that our work for TfL stated that Manston could accommodate 14,000 displace freighter movements in the **Executive Summary** to Vol I. There are numerous other references to the 14,000 movements, including at paragraph 3.1.3 of Vol III where Azimuth claims that Manston is the only airport that could accommodate these movements.	The updated Azimuth Reports continue to misrepresent the implications of our work for TfL.

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capability of Manston Airport is 21,000 annual cargo aircraft movements before allowing for any night operations)."			
2.23 – "Azimuth, at paragraph 3.3.2, incorrectly characterises our note to TfL as expressing a concern about the amount of trucking to Europe. Significantly, the last part of paragraph 9 is omitted by Azimuth. When looked at in its entirety, it is evident that we were noting that trucking is an inevitable part of the market, for reasons which we explain later in this section: [quote]"	Paragraph 3.3.2 of Volume I in section "**The UK's competitive position**"	Paragraph 4.3.4 in section "**The UK's competitive position**"	Reference corrected from TfL to York Aviation. Quotation still not given in its entirety and continues to be misconstrued.
2.27 – "Azimuth's interpretation of our work for FTA appears to erroneously assume that excess demand in the London system will need to be met by additional freighter movements from an airport in the vicinity of London. For instance, at para 4.2.3, they state that "Even so and as York Aviation figures show, there will be a shortfall of slots for dedicated freighters, likely to be in the region of 45,000 by 2050".	Paragraph 4.2.3 of Volume I in section "**London Heathrow Airport**"	Paragraph 5.2.3 in section "**London Heathrow Airport**"	No change
2.38 – "At Para 4.0.2, Azimuth suggest the reasons why cargo airlines choose airports. In reality,	Paragraph 4.0.2 of Volume I in section "**Airfreight Capacity at UK Airports**"	Paragraph 8.0.2 of Vol I in section "Potential opportunities for Manston Airport"	No change

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Manston does not fulfil a number of these key criteria meaning that, even in the most favourable circumstances, it can never be more than a niche player in the market…"			
Footnote 25 (on page 20) – "Azimuth Vol 1 paragraph 7.1.6 quotes from a 2005 MORI survey that people were not impacted by night flights but this would reflect that there were no scheduled night flights when the airport was operational. Local resident support for re-opening (paragraph 7.1.1) needs to be seen in this context."	Paragraph 7.1.6 of Volume 1 in section "**Support for Manston Airport**" Paragraph 7.1.1 of Volume 1 in section "**Support for Manston Airport**"	Both points removed.	Both points removed.
2.39 – "A key consideration is Manston's geographic position substantially away from the economic spine of the UK and with very limited local demand. It is remote from most markets with a journey time to the M25 of nearly 1 hour and accessibility beyond would be subject to the general levels of traffic congestion in the London area. Azimuths's suggestion (paragraph 1.2.2) that Manston might effectively serve as a 4th runway for Heathrow for air cargo flights is merely fanciful given the journey time of 1¾ hours, which is	Paragraph 1.2.2 of Volume 1 in section "**RiverOak's vision for Manston Airport**"	Paragraph 1.2.2 in section "**RiverOak's vision for Manston Airport**"	No change

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little shorter than the time from Heathrow to East Midlands Airport with an already well developed infrastructure for handling air freight and more likely to fulfil such a role in relation to freight overspill from Heathrow that is time critical or of such a special nature as to warrant the use of pure freighter aircraft."			
2.40 – "Many of the other points raised by Azimuth regarding security, e-commerce and just-in-time delivery are all factors relating to the overall efficiency of the industry. If anything, what the analysis presented by Azimuth demonstrates is the importance of developing efficient freight networks serving the whole of the UK rather than the need for a re-opened freight focussed airport in the South East of England. Manston could only recapture economic benefits from cargo being trucked to the continent, as asserted at paragraph 4.8.4, to the extent that it provides a more economically efficient solution…"	Paragraph 4.8.4 of Volume I in section "**Other South East UK airfields**"	Points relating to Operation Stack etc. are made in Paragraphs 6.4.11 to 6.4.12 of Vol I in section "**Air freight trucking**"; Paragraph 6.4.13 again makes the point that by flying freight from Manston Airport, negating the need to truck to and from European airports for some types of air transportation, should help to ease congestion in the area…	Redrafted text but claims about Manston's role in relation to intercepting trucking to Europe retained in new text.

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2.41 – "One of the key reasons that the UK aviation sector is so productive, as cited by Azimuth at paragraph 5.2.1, is that it allows the market to work. Inefficient and unnecessary actors in the market are allowed to fail…"	Paragraph 5.2.1 of Volume 1 in section "**The Potential Effect of BREXIT on UK Aviation**"	Paragraph 6.2.1 in section "**The Potential Effect of BREXIT on UK Aviation**"	Final sentence "As such, it seems counter-productive to allow a potentially viable airport such as Manston to be used for housing" has been removed.
2.42 – "Azimuth asserts, paragraph 6.2.2, that the perceived lack of investment in Manston by the previous owners was an impediment to freight growth."	Paragraph 6.2.2 of Volume I in sub-section "Previous Operations"	Paragraph 7.2.2 of Vol I in sub-section "**Previous operations**"	Identical, although wording of last sentence changed slightly.
2.44 – "Volume II of Azimuth's work begins with an assessment of different forecasting approaches for cargo, noting that forecasting of cargo is not as well developed as that for passenger activity. We agree that air freight forecasting is difficult and that there is a lack of hard data. However, we do not agree with Azimuth's assertion that quantitative methods are, therefore, not suitable and that qualitative methods are more appropriate. The evidence cited by Azimuth at Table 3 does not support this conclusion and suggests that causal methods (regression analysis) remain the most appropriate for	Table 3 of Volume II titled "**Attributes of Aviation Forecasting Techniques**"	Table 2 of Vol II, titled "**Attributes of Aviation Forecasting Techniques**"	No change

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forecasting demand for cargo and freighters.)			
2.46 - "As well as reviewing forecasting methodologies, Azimuth sets out some air freight growth forecasts produced by others. At paragraph 3.6.1, Azimuth cite the DfT's assumption for growth in freighter movements in its 2013 UK Aviation Forecasts at 0.4% p.a"	Paragraph 3.6.1 of Volume 2 in section "**Department for Transport National Level Forecasts**"	Paragraph 2.6.1 in section "**Department for Transport National Level Forecasts**"	No change. However, the DfT 2013 UK Aviation Forecasts have been superseded by the DfT 2017 UK Aviation Forecasts that now assume no growth in freighter aircraft movements.
2.47 – "Given the existence of a definitive 'official' UK forecast for freighter movements over the period to 2050, it is not clear why Azimuth rely on global forecasts for air freight produced by the manufacturers Boeing and Airbus for the purpose of selling aircraft (paragraph 2.1.10) as a basis for the longer term projections of freighter movements at Manston in their Volume III (paragraph 2.3.2)."	Paragraph 2.1.10 of Volume III in sub-section "**Air Freight Forecasting Method**" Paragraph 2.3.2 of Volume III in sub-section "**Long-term Freight Forecasting Model**"	Paragraph 2.1.11 of Vol III in sub-section "**Air Freight Forecasting Method**" Paragraph 2.3.2 in sub-section "**Long-term Freight Forecasting Model**"	No change
2.48 – "Taken together, these reports point to a declining market share for freighter aircraft in mature markets such as the UK, where there is a good supply of bellyhold capacity. It is, hence, not reasonable to use the Boeing and Airbus growth rates as a basis for projecting future growth in movements by pure	Paragraph 2.3.2 of Volume III of sub-section "**Long-term Freight Forecasting Model**"	Paragraph 2.3.2 of Vol III in sub-section "**Long-term Freight Forecasting Model**"	No change

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freighter aircraft to and from the UK, particularly given the existence of DfT projections for such movements. Rather than being conservative, as suggested at paragraph 2.3.2 in Volume III, the use of a 4% per annum growth rate for years 10 to 20 at Manston is highly optimistic, and is certainly not supported by the DfT's analysis of the UK market."			
2.49 – "Having rejected the recognised methodologies for forecasting freight demand at an airport, Azimuth rely on interviews with 24 individuals and/or organisations as set out in Table 4 of their report. To a large extent, these are people with past connections with Manston and who may not have a totally unbiased view on the desirability of it re-opening. It is notable that few cargo airlines or large scale air freight operators were interviewed, rather the list is dominated by local interested parties and logistics firms, not all of which are still in business. In some cases, throughout the remainder of Volume II, individuals are referred to who are not listed in Table 4 and,	Table 4 of Volume II in sub-section "**Interview data collection**" Paragraph 4.3.1 of Volume II in sub-section "**Semi-structured Interview Schedule Design**"	Table 3 in sub-section "Interview data collection" Paragraph 3.3.1 of Volume II in sub-section "**Semi-structured Interview Schedule Design**"	No change

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in other cases, individuals or organisations are referred to in different terms to those listed in the table. This does not suggest a very robust or rigorous approach to setting out the potential for Manston. Although the framework of questions is set out at paragraph 4.3.1, we are unable to identify any questions that would enable an assessment to be made of future passenger or freight volumes that would be likely to use Manston and which could be used as the basis for any forecast of future usage."			
2.51 "This analysis is generic and of no direct relevance to the potential for Manston. In particular, no linkage is drawn between the commodities which typically use air freight set out at paragraph 5.1.2 and the economic sectors active in Kent. Significantly, at paragraph 5.1.5, Azimuth cite a respondent that made clear that "tendered" prices determine how air freight moves. This is a powerful reason why bellyhold will in most instances win over pure freighter operations. Issues of price for pure freighter operations are reinforced at	Paragraph 5.1.2 of Volume II in sub-section "**Findings by Category of Interview Question**" Paragraph 5.1.5 of Volume II in sub-section "**Findings by Category of Interview Question**" Paragraph 5.1.10 of Volume II in sub-section "**Findings by Category of Interview Question**"	Paragraph 4.1.2 of Volume II in sub-section "**Findings by Category of Interview Question**" Paragraph 4.1.5 of Volume II in sub-section "**Findings by Category of Interview Question**" Paragraph 4.1.10 of Volume II in sub-section "**Findings by Category of Interview Question**"	No change

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paragraph 5.1.10, particularly in relation to the risks associated with higher fuel prices."			
2.52 - "There are then a number of comments regarding the current difficulties of operating at Heathrow at paragraph 5.1.6ff."	Paragraph 5.1.6ff of Volume II in sub-section "**Findings by Category of Interview Question**"	Paragraph 4.1.6ff of Volume II in sub-section "**Findings by Category of Interview Question**"	No change
2.54 – "Again, paragraph 5.1.15 highlights the dominance of bellyhold freight. Whilst noting that the A380 aircraft has more limited space for bellyhold cargo than B747s at paragraph 5.1.14, Azimuth neglect to point out that other new aircraft, such as B787 and A350 aircraft, do not suffer from similar reductions in space and capacity and continue to offer substantial bellyhold opportunities and capacity."	Paragraph 5.1.15 of Volume II in sub-section "**Findings by Category of Interview Question**" Paragraph 5.1.14 of Volume 2 in sub-section "**Findings by Category of Interview Question**"	Paragraph 4.1.15 of sub-section "**Findings by Category of Interview Question**" Paragraph 4.1.14 of sub-section "**Findings by Category of Interview Question**"	No change
2.55 – "The response cited at paragraph 5.1.19 makes clear that the most important factor in considering freighter operations is "cost, speed and access to road networks", which is not a condition which Manston can meet for the majority of the UK. The local transport firms (paragraph 5.1.21) clearly saw an advantage for them in Manston re-opening but it is far	Paragraph 5.1.19 of Volume II in sub-section "**Findings by Category of Interview Question**" Paragraph 5.1.21 of Volume II in sub-section "**Findings by Category of Interview Question**" Paragraph 5.1.20 of Volume II in sub-section "**Findings by Category of Interview Question**"	Paragraph 4.1.19 of Volume II in sub-section "**Findings by Category of Interview Question**" Paragraph 4.1.21 of Volume II in sub-section "**Findings by Category of Interview Question**" Paragraph 4.1.20 of Volume II in sub-section "**Findings by Category of Interview Question**"	No change

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less clear that this was reflected by the broader industry. Significantly, paragraph 5.1.20 does not address the operational reasons why major freight forwarders seek to locate close to Heathrow, Stansted or East Midlands, except possibly for their city centre sales offices."			
2.56 – "The response quoted at paragraph 5.1.23 makes clear that for Manston to be an attractive option to freighter operations, it would need to offer night operations."	Paragraph 5.1.23 of Volume II in sub-section "**Findings by Category of Interview Question**"	Paragraph 4.1.23 of Volume II in sub-section "**Findings by Category of Interview Question**"	No change
2.58 – "The one airline interviewed made clear (paragraph 5.2.3) that "success at Manston depended upon identifying a niche market and becoming known for excellence. In particular, suggestions included a perishables centre, handling of live animals, easy access for charter flights, and handling cargo that is not necessarily straightforward". We would have expected the remainder of the report to concentrate on quantifying the size of this niche market, including any Brexit implications for exports (paragraph 5.2.1)."	Paragraph 5.2.3 of Volume II in sub-section "**Freight-Focussed Findings**" Paragraph 5.2.1 of Volume II in sub-section "**Freight-Focussed Findings**"	Paragraph 4.2.3 of Volume II in sub-section "**Freight-Focussed Findings**" Paragraph 4.2.1 of Volume II in sub-section "**Freight-Focussed Findings**"	No change

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2.59 – "The spurious suggestion that freight might be "banned" from Heathrow (paragraph 5.2.6) and Manston might benefit is clearly nonsense in the context of the Government's support for a third runway to provide capacity for freight in the bellyholds of passenger aircraft as much as for passengers."	Paragraph 5.2.6 of Volume II in sub-section "**Freight-Focussed Findings**"	Paragraph 4.2.6 of Volume II in sub-section "**Freight-Focussed Findings**"	No change despite the clear statement in the Airports NPS that R3 at Heathrow is intended to double the freight capacity of Heathrow.
2.60 – "Whilst the suggestion from Coyne Airways about the potential for Manston to offer fuel cost savings when flying south from the UK (paragraph 5.2.11) is interesting, it appears not to take any account of the locations where freight is generated in the UK or where it is consolidated into viable loads."	Paragraph 5.2.11 of Volume II in sub-section "**Freight-Focussed Findings**"	Paragraph 4.2.11 of Volume II in sub-section "**Freight-Focussed Findings**"	No change
2.61 – "Azimuth also claim that the bellyhold model is broken and that there is about to be a shift back to pure freighter operations at paragraph 5.2.25 but this is pure speculation and at odds with other industry commentators (see Airbus freighter forecasts which project an increasing share of bellyhold globally) and the UK Government's view as expressed by the Department for Transport."	Paragraph 5.2.25 of Volume II in sub-section "**Freight-Focussed Findings**"	Paragraph 4.2.25 of Volume II in sub-section "**Freight-Focussed Findings**"	No change

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2.62 – "Whilst paragraph 5.2.24 says there was underinvestment in facilities by the previous owners, the quotation from Finlays at paragraph 5.2.26 makes clear that Manston previously offered a good level of service. Hence, there is little evidence to suggest that underinvestment was any impediment to Manston attaining its natural share of the market in the past. Although Finlays have now relocated their operation back to Stansted, we would accept that they might choose to return to Manston with a similar number of movements as previously if the facilities were reinstated and provided the cost of operating was competitive compared to Stansted. There may also be scope for some humanitarian and military flights (paragraph 5.2.48) but these will be small in number and not the basis for a viable operation of the Airport."	Paragraph 5.2.24 of Volume II in sub-section "**Freight-Focussed Findings**" Paragraph 5.2.26 of Volume II in sub-section "**Freight-Focussed Findings**" Paragraph 5.2.48 of Volume II in sub-section "**Freight-Focussed Findings**"	Paragraph 4.2.24 of Volume II in sub-section "**Freight-Focussed Findings**" Paragraph 4.2.26 of Volume II in sub-section "**Freight-Focussed Findings**" Paragraph 4.2.49 of Volume II in sub-section "**Freight-Focussed Findings**"	No change
2.63 – "At paragraph 5.2.45, Fedex's criteria for an airport to be attractive to an integrator are set out and these seems to describe the characteristics of their main UK base	Paragraph 5.2.45 of Volume II in sub-section "**Freight-Focussed Findings**"	Paragraph 4.2.46 of sub-section "**Freight-Focussed Findings**"	No change No change

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at Stansted. There is then a discussion about some of the problems DHL perceive at Heathrow but, of course, DHL's principal UK operation is focussed at East Midlands where they have an extensive operation. From our work with the integrators and with the Freight Transport Association, we know that Manston is too peripheral for integrator operations serving the UK. Integrators have a strong preference for locations more centrally located in the UK with good road access to all of the major markets. The availability of land for warehouses (paragraph 6.2.6) is far less important than a location central to the market and the availability of good road access, neither of which are characteristics of Manston. This would apply equally to the suggestion that Amazon might locate there or that the Airport could become a base for drone operations (6.3.24-27)."	Paragraph 6.2.6 of Volume II in sub-section "**Market Opportunities for Manston Airport**" Paragraphs 6.3.24-27 of Volume II in sub-section "**External Environment Scenarios**"	Paragraph 5.2.6 of Volume II in sub-section "**Market Opportunities for Manston Airport**" Paragraphs 5.3.24-27 of Volume II in sub-section "**External Environment Scenarios**"	Removed explicit quote from Atlas Air indicating support for Manston Airport, replaced by comment on discussions with Atlas Air. The position regarding Atlas Air's support needs to be clarified.
2.67 – "Again, there is reliance on our work for TfL and the FTA (paragraph 6.1.8) to justify the conclusions reached. As stated	Paragraph 6.1.8 of Volume II in sub-section "**Attracting Air Freight to Manston Airport**"	Paragraphs 5.1.8 of Volume II in sub-section "**Attracting Air Freight to Manston Airport**"	No change

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above this work does not support RSP's case."			
2.69 – "At paragraph 6.3.1, Azimuth set out 9 potential scenario drivers for Manston. However, it is not clear how these scenario drivers have been taken forward to the forecasts set out in Volume III, which do not set different potential scenarios for growth…"	Paragraph 6.3.1 of Volume II in sub-section "**External environmental scenarios**"	Paragraphs 5.3.1 in Volume II in sub-section "**External environmental scenarios**"	No change
2.70 – "Section 7 sets out the conclusions from Volume II. According to Azimuth (paragraph 7.1.1), the key issues that are seen to favour Manston are…"	Paragraph 7.1.1 of Volume II in sub-section "**Recommendations**"	Paragraph 6.1.2 of Volume II in sub-section "**Recommendation**"	No change but prefaced now by paragraph 6.1.1 which states *"It is recommended that the airport operator incorporate the opportunities shown below into their future development and marketing plans".* This suggests strongly that there is less certainty about the deliverability of the opportunities at Manston than is implied by <u>all</u> of these opportunities being included within the RSP forecasts for Manston.
2.71 – "Based on their analysis, Azimuth then set out (at paragraph 7.1.2), the markets which it believes that Manston could attract"	Paragraph 7.1.2 of Volume II in sub-section "**Recommendations**"	Paragraph 6.1.3 of Volume II in sub-section "**Recommendation**"	No change
2.73 – "The key conclusion drawn by Azimuth is that "This report demonstrates the potential demand	Paragraph 7.0.1 of Volume II in sub-section "**Conclusions**"	Paragraph 6.0.1 of Volume II in sub-section "**Conclusions**"	No change

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for Manston Airport, indicating its viability and clearly showing that Manston Airport is a valuable local, regional and national asset, providing airport infrastructure badly needed by the UK." (Paragraph 7.0.1)"			
2.76 – "The forecasts set out in Volume III draw extensively on the analysis in Volumes I and II. Although stated to be derived on a 'bottom up' basis (Executive Summary Page 1) and claimed to be more conservative than top down, econometrically driven, projections, reliance is still placed, at paragraph 1.1.1…"	Paragraph 1.1.1 of Volume III in sub-section "**Background**"	Paragraph 1.1.1 in sub-section "**Background**"	Minor rewording of language. No substantive change to continued reliance on York Aviation work despite the reliance on this work having been refuted.
2.77 – "Paragraph 2.1.2 again suggests that the literature review undertaken showed that "a qualitative approach was the most appropriate method through which to gather data on the potential demand for an individual airport". Whilst we agree that freight forecasting is difficult, as Azimuth themselves note, at paragraph 2.1.4, qualitative forecasts still need to be based on "market data" and, at paragraph 2.1.6, Azimuth go on	Paragraph 2.1.2 of Volume III in sub-section "**Air Freight Forecasting Method"** Paragraph 2.1.4 of Volume III in sub-section "**Air Freight Forecasting Method**" Paragraph 2.1.6 of Volume III in sub-section "**Air Freight Forecasting Method**"	Paragraph 2.1.2 of Volume III in sub-section "**Air Freight Forecasting Method**" Paragraph 2.1.4 of Volume III in sub-section "**Air Freight Forecasting Method**" Paragraph 2.1.7 of Volume III in sub-section "**Air Freight Forecasting Method**"	No change

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to refer to the anecdotal information collected in the interviews as primary market data."			
2.80 – "Azimuth place reliance on both the overspill argument (paragraph 2.2.2) and that there will be a reversal away from the existing preference for bellyhold for most types of air freight, despite the overwhelming evidence that this is likely to remain the case in future due to the lower freight rates available…"	Paragraph 2.2.2 of Volume III in sub-section "**Short and Medium Term Freight Forecasting Model**"	Paragraph 2.2.2 of Volume III in sub-section "Short and Medium Term Freight Forecasting Model"	No change
2.82 – "At paragraphs 2.2.6 and 2.2.7, Azimuth set out the methodology they have used for deriving freight movements and tonnage for Manston. In essence, these movement forecasts are entirely based on claimed confidential discussions with airlines, airports and others involved in the industry, which are then converted to freight tonnage based on the capacity of each aircraft and assumed load factors. These discussions would appear to be different from the list of interviewees reported in Volume II, which included only 1 airline	Paragraph 2.2.6 of Volume III in sub-section "**Short and Medium Term Freight Forecasting Model**" Paragraph 2.2.7 of Volume III in sub-section "**Short and Medium Term Freight Forecasting Model**" Paragraph 2.2.9 of Volume III in sub-section "**Short and Medium Term Freight Forecasting Model**"	Paragraph 2.2.6 of Volume III in sub-section "**Short and Medium Term Freight Forecasting Model**" Paragraph 2.2.7 of Volume III in sub-section "**Short and Medium Term Freight Forecasting Model**" Paragraph 2.2.9 of Volume III in sub-section "**Short and Medium Term Freight Forecasting Model**"	No change

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(unlikely itself to relocate its single European operation to Manston) and no other airports. Although it is claimed (paragraph 2.2.9) that switching costs have been taken into account, there is no explanation as to how these costs have been factored into the assessment of what operations Manston might attract."			
2.83 – "A vague list of potential operations is set out at paragraph 3.2.3, albeit with specific assumptions then stated about the loadings on each…" [Also mentioned in YAL para 2.85]	Paragraph 3.2.3 of Volume III in sub-section "**Freight Forecast by Tonnage**"	Paragraph 3.2.3 of Volume III in sub-section "**Freight Forecast by Tonnage**"	Acknowledgement that some return legs can be empty has been added. In some cases, global growth rates from IATA have been added but these are not relevant to assessing the potential for such operations at Manston.
2.88 – "Although not the main focus of this summary report, we note that the passenger forecasts, set out by Azimuth in Section 2.4"	Title for sub-section 2.4 in Volume III "**Passenger forecasting method**"	Title for sub-section 2.4 in Volume III "**Passenger forecasting method**"	No change
2.91 – "In overall terms, the forecasts presented by Azimuth at Table 1 of Volume III are simply not credible and do not provide a robust basis for promoting a DCO."	Table 1 in Volume III "**Summary 20 year freight and passenger forecast"**	Table 1 in Volume III "**Summary 20 year freight and passenger forecast"**	Table unchanged. Paragraph below has now removed "*Nonetheless, the forecast shows the airport exceeding the Nationally Significant Infrastructure Project (NSIP) criteria for 10,000 freight movements by Year 6*".
Footnote 52 [from YAL Para 4.9] – "We are unclear why 19 Code E	Table 2 in Volume III "**Freighter Movements by Year by ICAO**	Table 2 in Volume III "**Freighter Movements by Year by ICAO**	Code F column has been removed. Code D movements have

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stands are proposed given that the fleet mix at 2039 shows 85% of aircraft (at 17,171 annual cargo aircraft movements) being by aircraft smaller than Code E dimensions."	**Design Code"** in sub-section "**Freight Forecasts by Movements**"	**Design Code"** in sub-section "**Freight Forecasts by Movements**"	significantly decreased whilst Code E movements have significantly increased. The reasons for this is unexplained and this is inconsistent given that the total tonnages and tonnage assumptions per movement have not changed. This cannot be correct.
5.4 – "Azimuth spend some time considering the appropriate employment density on which to base an assessment of direct employment. They ultimately conclude that East Midlands Airport provides an appropriate comparator (see paragraph 4.1.4 of Volume IV)…"	Paragraph 4.1.4 of Volume IV in sub-section "**Macro Level Forecasts**"	Paragraph 4.2.1 of Volume IV in sub-section "**Comparator airport figures**"	Similar points but different wording, and a clarification over the calculation has been added.
5.8 – "In examining the employment projections presented (Section 5.1 of Volume IV), it appears that no allowance has been made for either productivity growth or returns to scale over time and as the Airport grows.	Section 5.1 of Volume IV titled "**Forecast Job Creation Resulting from Operations at Manston Airport**"	Section 5.1 of Volume IV is titled "**Forecast Job Creation Resulting from Operations at Manston Airport**"	No change here but some allowance has been made for productivity effects as set out in Volume IV at paragraph 4.3.3. Other points regarding the inappropriate employment density have not been addressed.
5.10 – "Section 7 of Volume IV discusses other socio-economic impacts. In particular, it talks about contributions to GDP. Para 7.1.1 describes GDP as "a monetary measure of the state of a Region's or a Country's economy"	Paragraph 7.1.1 of Volume IV in sub-section "**Gross Domestic Product**"	Paragraph 8.1.1 of Volume IV in sub-section "**Gross Domestic Product**"	Same error repeated. Definitions for acronyms are added.

York Aviation (YAL) Reference and Para	Azimuth Old Para	Azimuth New Para	Implications / Summary of Change
5.11 – "The comments in Paragraph 7.1.7 describing how Manston could contribute significantly to Thanet's Economic Growth Strategy aspirations in terms of GVA per job and per capita are, in reality, unsupported."	Paragraph 7.1.7 of Volume IV in sub-section "**Gross Domestic Product**"	Paragraph 8.1.7 of Volume IV in sub-section "**Gross Domestic Product**"	No change

APPENDIX D: YORK AVIATION FEBURARY 2018 NOTE

York Aviation

Manston Airport

RSP Consultation January 2018 – Further Comments on Azimuth Report *"Manston Airport – A Regional and National Asset"*

1. In this note we comment on the revised material presented in the 4 volumes of the Azimuth Report. However, much of this report remains unchanged and the significant shortcomings identified in our earlier report[1] have largely not been addressed and, where new material has been added, this fails to correct the previous misinterpretations.

2. Ultimately, Azimuth still seek to rely on our work for the Freight Transport Association and for Transport for London to justify their freighter aircraft movement forecasts despite our having made clear in our earlier report that this work cannot be interpreted in the way that Azimuth seek to do.

3. In this note, we address the new points made by Azimuth in each of the 4 volumes in turn.

Azimuth Report Volume I – Demand in the South East of the UK

Section 2 – UK Airport Capacity

4. As we pointed out at paragraphs 2.8 to 2.11 of our earlier report, almost all of the evidence presented by Azimuth to highlight the need for more airport capacity in the South East of England relates to the need for more airport capacity to meet growing passenger demand for flights to a wide range of global destinations fed by hub connecting services at Heathrow. These passenger flights also provide significant bellyhold freight capacity. Indeed, the recent non-statutory consultation material published by Heathrow Airport makes clear that, overall, the new passenger services and additional capacity made possible by the third runway will result in a doubling of freight capacity at the Airport[2].

5. The reference, at paragraph 2.1.2 of the Azimuth Report, to the Secretary of State for Transport's introduction to the new UK Aviation Forecasts in October 2017, stating that the runways at the London airports will be full at an earlier date than previously thought, needs to be seen in this context. It is clear that the reason that runway capacity is filling up more quickly than previously thought is due to growth in passenger aircraft as the actual decline in pure freighter flights is highlighted in the document at Figure 4.5[3] reproduced below.

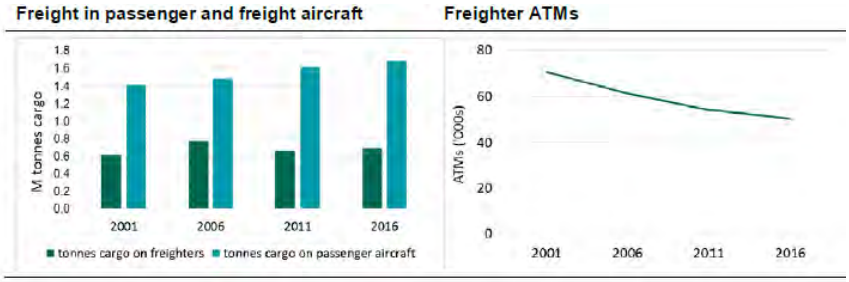


Figure 4.5 Historic freight carried at all modelled airports

[1] "SUMMARY REPORT ANALYSING USE OF YORK AVIATION MATERIAL BY RIVEROAK STRATEGIC PARTNERS AND ASSESSMENT OF CAPABILITY OF MANSTON AIRPORT" submitted to PINS and made available on the Stone Hill Park website in November 2017.

[2] The Case for Heathrow Expansion, Heathrow Airport Ltd, January 2018.

[3] UK Aviation Forecasts, Department for Transport, October 2017, corrected version issued 25th January 2018 as a result to discrepancies in the use of CAA Statistics data in the original report brought to the DfT's attention by York Aviation.

6. These forecasts do not support the need for more capacity for pure freighter aircraft. Reference, at paragraph 4.0.1 of the Azimuth report, to the difference between the constrained and unconstrained passenger forecasts are simply irrelevant to the requirement for capacity for freighter aircraft and, in practice, the constrained forecast represents an unrealistic situation of no further capacity expansion at any of the UK airports over the period to 2050. The Department for Transport's (DfT) long term assumption is that there will be no growth in pure freighter aircraft movements across all UK airports as we highlighted at paragraph 3.26 of our previous report and this is the relevant context for considering whether there is a 'need' for Manston. Azimuth are simply wrong when they say that the DfT's assessment of the extent to which runway capacity is full *"may not reflect the need for freighter aircraft going forward"* as it is clear from Table 68 of the UK Aviation Forecasts report that freighter ATMs are included within the assessment

7. Hence, Azimuth's inference from this information that there is a strong economic case for more freighter airport capacity in the South East of England is simply not correct and the evidence regarding the economic benefits of additional passenger aircraft capacity has been misapplied.

Section 3 – Air Freight Capacity

8. Additional references have been added, at paragraphs 3.15 and 3.16 of the Azimuth report, to the prospects for growth in demand for pure freighter operations globally. However, this is not relevant to the prospects for Manston as more specific information is available of the actual trends and requirements in the UK market, where there are high levels of bellyhold capacity available at a high frequency of service negating the need for substantial additional freighter markets. The UK market for freighter aircraft is analysed in detail in Section 3 of our November 2017 report. The fact that freighters carry a lower proportion of cargo to/from the UK than the global average (Azimuth paragraph 3.2.1) is a reflection of the strong global position of the UK in terms of the provision of long haul scheduled services offering passenger and freight capacity. There is simply no need for additional freighter operations given the high quality offer made available on passenger aircraft. These flights offer more than sufficient competition to ensure that shippers are not disadvantaged, with the costs of bellyhold being lower than pure freighter tariffs in any event.

9. Nor does the additional information about short term shortage of freight capacity in the run-up to Christmas 2017, consequential increases in freight rates across Europe and congestion in and around the cargo centre at Heathrow (para 3.1.8), demonstrate a requirement for additional pure freighter operations. What this additional information evidences is the shortage of bellyhold capacity, otherwise, if pure freighter operations were an economic solution for shippers, additional ad hoc flights would have been operated to Stansted or East Midlands to cover the shortfall, both airports having spare capacity for additional freighter movements. The fact that such extra flights were not operated is clear evidence that even at higher freight rates, additional freighter operations were not economic. The position is further evidenced by the reference at paragraph 3.2.5 to a 10% increase in cargo handled at Heathrow in 2017. Heathrow's current consultation on its expansion makes clear an intention to resolve congestion issues in and around the cargo centre, improving facilities and access to accommodate 100% growth in cargo throughput[4].

10. As noted earlier, this section of the Azimuth report continues to place inappropriate reliance on our earlier work for Transport for London and the Freight Transport Association. As we made clear at paragraphs 2.17 to 2.28 of our earlier report, this work cannot be interpreted in the way Azimuth seek to do. It is simply wrong to state, as Azimuth do at paragraph 3.4.6 of their report that we identified *"that an operational Manston Airport is the only viable option"*. This serious misrepresentation of our 2015 report for the Freight Transport Association, which did no more than mention that Manston had handled some freighter traffic prior to its closure, has not been corrected.

[4] Our Emerging Plans, Heathrow Airport Ltd, January 2018.

Section 4 – Air Freight Capacity in the UK

11. Section 4.1 of the Azimuth report relating to Stansted Airport has been extensively revised, noting that the Airport no longer intends to seek an increase in its annual movement limits but neglects to mention the fact that movements are reserved for freighter aircraft under the 2008 planning permission under condition ATM1: *"a limit on the number of occasions on which aircraft may take-off or land at Stansted Airport of 264,000 ATMs (Air Transport Movements) during any 12 calendar month period, of which no more than 243,500 shall be PATMs (Passenger Air Transport Movements) and no more than 20,500 shall be CATMs (Cargo Air Transport Movements)."* Of the 20,500 movements reserved for freighter aircraft, only 11,600 were used in 2016 meaning that there were almost 10,000 freighter aircraft movements of spare capacity at that airport alone. Indeed, the inference that Stansted will seek to displace freighter activity, at paragraph 4.1.5 of the Azimuth report, is simply not borne out by the facts. Attaining the planned 43 mppa with 243,500 PATMs would require an average number of passengers per aircraft of c.176, up from c.161 in 2017, which is a realistic target given that the new generation of Ryanair aircraft (Boeing 737 max) will provide increase in seat capacity by 9 passengers on each aircraft before any allowance is made for Stansted's growing portfolio of long haul services. The Stansted Airport Sustainable Development Plan 2015 makes clear that Stansted intends to increase pure freighter activity and expressly states the potential to increase from 230,000 tonnes to 400,000 tonnes of freight on dedicated aircraft[5].

Section 5.3 – E-commerce

12. A section has been added to the Azimuth report regarding growth in e-commerce and the effect on demand for air freight. However, of itself, this tells us nothing about the requirement for more pure freighter aircraft and may simply reflect growing demand for bellyhold capacity at economic freight rates.

Section 6 – Manston Airport

13. Section 6.1 of the Azimuth report adds substantial text about the history of Manston Airport, expanding on the original assertions that the failure of the Airport can be attributed by the failure of the previous owners to invest in facilities. As we noted at paragraph 2.62 of our earlier report, users of Manston previously appeared happy with the standard of service offered so there is no evidence that lack of investment was an impediment to growth, rather it was an absence of a market. Furthermore, investment in freight facilities at Stansted and East Midlands Airports was in response to clear demand from particular operators (e.g. DHL's own facility at East Midlands) rather than speculatively ahead of proven demand. Despite investment in cargo facilities, Doncaster Sheffield Airport attracted only 688 air freighter movements in 2016.

14. Reference has been added, at paragraph 6.2.3 of the Azimuth report, to our 2011 report on the Economic Impact of Night Flying Report for Manston where we noted that Manston stood to benefit from the levels of air freight growth being projected by Boeing and Airbus. It is important to recognise that these remarks were made in the context of a Government policy position which did not support the provision of any additional capacity across the London airports and whilst Manston was still operational in the market. This is not the situation today. Furthermore, at the time that this report was written, it was assumed that the decline observed in pure freighter movements to/from the UK could be attributed to the recession and that there would be an upturn in such movements with economic recovery. Clearly, we now have evidence that this has not been the case and there has been a structural change in the industry notwithstanding the availability of spare capacity for freighters at airports such as Stansted and East Midlands.

[5] Stansted Airport, Sustainable Development Plan 2015, Summary page 9.

Section 7 – Future Potential Opportunities for Manston

15. Whilst noting the responses to RSP's initial Summer 2017 consultation (paragraph 7.1.6 of the Azimuth report), it is important to note that this consultation does not represent a systematic or unbiased sample, particularly given the shortcomings in the case presented. As in the original Azimuth report, the findings of an earlier comprehensive resident survey conducted by MORI are referenced (paragraph 7.1.7). Azimuth seek to construe this as being supportive of growth on the basis that residents say they were little affected by noise from airport operations, including at night. Of course, at that time, the Airport was operating under the restrictions of a Section 106 Agreement which did not allow operations at night (other than for emergencies). Hence, it is hardly surprising that residents report that they were little disturbed by operations at night. However, when the MORI report is examined more fully, it is evident over half of the residents were concerned that expanded operations would give rise to negative impacts from night operations (page 5 of the MORI report[6]). This needs to be seen in the context of the substantial number of night movements being projected by RSP, as we discuss later in this note.

16. A new Section 7.5 has been added on slot restrictions at Amsterdam, presumably to counter our questioning of why Coyne Airways would relocate from Amsterdam to Manston in our earlier report. This sub-section neglects to mention that Schiphol Group is extending the runway at nearby Lelystad to accommodate overspill traffic[7], primarily for leisure flights so as to free up slots for 'Mainport' related activity at Schiphol which would include cargo services. Indeed, Schiphol Group is also investing in improving its cargo handling facilities[8] so, notwithstanding the application of the 80% 'use it or lose it' rule[9] in the short term which could impact disproportionately on cargo operators to the extent that they do not use all of their allocated slots, Schiphol has put in place plans to address the forthcoming capacity constraint through enabling Lelystad to act as a reliever airport, albeit that Airport will not be available until 2019. There are also ongoing discussions regarding the long term future of the existing movement limit[10]. In any event, the existence of a potential constraint does not automatically make Manston a preferred alternative as Brexit is likely to make the airport an unattractive alternative for cargo airlines seeking to serve the EU market more broadly. Other available airport capacity in continental Europe, including that at Lelystad, is more likely to be a first choice for any operations displaced from Schiphol.

Azimuth Report Volume II – A Qualitative Study of Potential Demand

Section 3 – Review of Air Freight Forecasting Literature

17. At paragraph 3.6.4, Azimuth have added a reference to the DfT 2017 UK Aviation Forecasts but seek to dismiss the projected no growth in freighter aircraft movements as merely an assumption (see Volume III, paragraph 2.1.14), referring to the historic tonnage growth percentages cited by the DfT. Unfortunately, Azimuth do not appear to have realised to what the percentage growth figures refer. The 5% growth referred to by DfT[11] is total growth in cargo carried across freighter and passenger aircraft combined over the period 2011 to 2016. When mail is included, tonnage growth over the 5 years has been only 3.2%, and there has be negative growth in combined tonnage on freighter aircraft of -2.2%[12]. In contrast, the combined tonnage of freight and mail carried on passenger aircraft grew by 1.1% over the period. Unfortunately, Azimuth's misunderstanding of the DfT data has been carried through to the forecasts in Vol III, which cover both freight and mail operations projected for Manston.

[6] http://hbm2015.com/wp-content/uploads/2016/08/2005-04-S106-Consultation-MORI-results.pdf
[7] https://www.lelystadairport.nl/en/future
[8] http://www.annualreportschiphol.com/results/our-results/competitive-marketplace
[9] EU Slot Allocation Regulation 95/93 as amended.
[10] https://theloadstar.co.uk/schiphol-artificially-restricting-airport-cargo-capacity-illegal-slot-rules/
[11] In the amended version of UK Aviation Forecasts 2017.
[12] CAA Airport Statistics, adjusted for Belfast International data as advised by DfT.

Azimuth Report Volume III – The Forecast

Section 2 – Review of Air Freight Forecasting Literature

18. At paragraph 2.1.6, Azimuth refer to a peer review of the forecasting methodology by Loughborough University but this peer review has not been published as would be normal best practice. We have set out at length in our previous report (paragraphs 2.76 to 2.87) the flaws in the approach adopted. These criticisms have not been addressed. In our view, the forecasts are purely aspirational and not grounded in the evidence. As such, they are highly likely to have been infected by optimism bias within the RSP team.

19. At paragraph 2.1.10, Azimuth cite recent growth in freight tonnage from an IATA bulletin and capacity growth but, again, these are combined freighter and bellyhold figures and fail to take account that load factors remain low in Europe at 46.4% over the 12 months as reported by IATA[13]. This suggests that there is substantial potential to increase cargo tonnage flown without the need to increase aircraft movements, notwithstanding the comments at paragraph 2.3.5 of the Azimuth report that there may be instances where volume is a better measure of how full an aircraft may be rather than weight, an issue which is likely to relate to special consignments rather than the majority of high value, low volume goods carried as air freight. Azimuth continue to rely inappropriately on combined cargo tonnage figures and projections as a proxy for expected growth in cargo aircraft movements. As made clear in our earlier report (paragraphs 2.47 to 2.48), the use of such data is not appropriate for considering the prospects for Manston.

20. At paragraph 2.1.13, Azimuth cites CAA Airport Statistics for cargo growth for 2016, seeking to suggest some reversal of past trends away from freighter aircraft movements. Paragraph 2.3.6 also cites short term tonnage increases on freighter aircraft to infer a longer trend. There is danger in relying on single year figures but the data for 2017 show cargo tonnage across the London airports growing by 9.8%, in line with the UK average, but that carried on freighter aircraft growing by only 7% with a 5.5% fall in cargo aircraft movements in the London area. This tends to confirm the long term trend towards the increasing use of bellyhold capacity on the wide global network served from the main London airports.

21. Most significantly, in the light of this misinterpretation of short term trends, Azimuth compound the error by taking the 4%[14] figure for growth in cargo tonnage on freighter aircraft over a 5 year period, cited in the original DfT Aviation Forecasts 2017[15] , and use this as a justification for continuing to use the Boeing/Airbus forecast of 4% per annum growth in global freight tonne kilometres as the basis of forecasting freighter movements at Manston for years 10 to 20 of the forecast. Leaving aside the questionable validity of using a freight tonnage forecast as the basis for forecasting freighter aircraft movements, this is mathematically wrong and the average annual growth rate in cargo tonnage on pure freighter aircraft is no more than 1% per annum based on the updated DfT growth of 5% in cargo tonnage (see paragraph 17 above). On this basis, the updated Azimuth report presents identical forecasts as previously, although how clearly based on an error in the growth rate applied. Even if the short term 'bottom up' forecasts were correct, which we dispute (see paragraphs 2.80 to 2.85 of our earlier report), the eventual forecast at year 20 should be no greater than 12,789 freighter movement rather than 17,171 movements.

Section 3 – Manston Airport Freight Forecast

22. The updated Azimuth report has provided no further substantiation of the short term forecasts, nor of the forecast fleet mix, so undermining the weight which can be attached to the reliance on the short term forecasts.

[13] IATA Air Freight Analysis, November 2017, page 4.

[14] Now revised to 5%.

[15] Paragraph 4.4.

23. Despite the lack of the required explanation of the derivation and make up of the forecasts in the Azimuth report, some further detail is now provided in the noise section of the updated PEIR, which sets out the details of the freight movement forecasts by airline and aircraft type (Appendix 12.3). This information is set out in a table appended to this note and we have added the relevant QC count information to illustrate some of the issues arising from the fleet mix. Significantly, the fleet mix assessed for noise is not the same as contained in Azimuth Vol III. The inconsistencies are unexplained and give rise to further doubt as to the robustness of the forecast and whether it is deliverable:

	Azimuth	**PEIR App 12.3**
Code C	43%	41%
Code D	42%	17%
Code E	13%	37%
Code F	2%	6%

24. When examined in detail, the projections underlying the whole application lack realism for the following reasons:

- ✈ Amazon - this is suggested as a B777-300ER freighter but there is no freighter variant of this aircraft; the only B777 freighters being -200 variants. Other airlines are also shown as using this type and it accounts for 26% of all freighter movements shown.

  In any event, it is not clear why Amazon would operate 5 flights a day from the US to Manston as the goods which Amazon sells in the UK are not, in the main US manufactured. This seems to confuse the claimed potential (Azimuth Vol II, section 6.3), which we dispute, for an Amazon distribution hub at Manston to serve the UK with long haul freight operations.

- ✈ Cargolux - this assumes reinstatement of the previous Cargolux flower operation which has relocated to Stansted.

- ✈ Fedex/DHL- the aircraft types shown appear to indicate a DHL operation (e.g. A330-343 aircraft, which are only operated by DHL). The integrator operation is expected to account for 22.8 movements per day or 46% of the total. Based on our knowledge of the integrator market, this is completely unrealistic as Manston is quite simply in the wrong location to serve as an integrator hub in the UK. It would also require a substantial night operation, for example at DHL's main UK base at East Midlands Airport has some 63% of freighter aircraft movements operating within the night period.

  Overall, the number of movements shown in the PEIR would imply around 8,322 annual movements by the integrator. This is around 43% of the total number of freighter movements at EMA in 2016 or around 2/3 of the current DHL operation. This is hardly realistic as it would imply Manston would be a major integrator hub, duplicating the EMA operation. It is also important to note that

freight tonnage continues to grow at EMA but the number of freighter movements have not systematically grown over the last decade.

- Pakistan Airlines - the airline no longer operate pure freighter aircraft.
- Postal - the B737 operation presupposes the development of a mail hub. Royal Mail have pared back on flying even at their main hub at EMA so it is unclear why a dedicated B737 operation would be operated from Manston.
- Russian - the types indicated have QC counts of 8 and 2 respectively on arrival and 16 on departure, with some movements shown as operating at night, in contravention of the proposed Noise Mitigation Plan banning such aircraft at night.
- TAAG Angola – the airline does not operate B747 freighters, which is the type shown, and, in any event, their operations by most aircraft types are banned from European airspace on safety grounds.

25. These basic errors reinforce the doubts expressed in our earlier report about the realism of the short term freighter movement forecasts.

Implications for Night Operations and Night Noise

26. The Noise Mitigation Plan sets out a Night Quota period from 2300-0600 and a Shoulder period from 0600-0700. The quotas proposed for each of these periods are 4,000 QC points and 2,000 QC points per annum respectively. These QC budgets can be compared to other airports where such quotas are in place:

- Luton 3,500 from 2330-0600 and 7,000 from 0600-0700
- Heathrow (from Nov 18) 5,150 from 2330-0600
- Gatwick (from Nov 18) 6,935
- Stansted (from Nov 18) 7,960

27. The proposed night noise quota of 4,000 QC points is higher than the night quota for Luton Airport and not significantly lower than that for Heathrow. Local residents will be subject to a substantial amount of noise during the sensitive night period.

28. The fleet mix information provided in Section 12 of the update PEIR shows an average of 7.1 aircraft movements per night[16] for the 7 hour night quota period. Based on the aircraft types shown and the relevant QC points, this would amount to 3,222 annual QC points, within the 4,000 quota proposed. The proposed quota would allow up to around 9 aircraft movements per night on average, assuming the same aircraft mix, equivalent to around 3,217 annual aircraft movements. It follows, therefore, that the 2,000 quota for the shoulder hour 0600-0700 would allow 4-5 aircraft movements a day. In total, the extended 8 hour night period quotas would allow 4,826 annual aircraft movements on the basis of the fleet mix shown. This could be higher if quieter aircraft were operated over time.

29. However, a key issue is the realism of the projected day/night split. The RSP/Azimuth projections indicate only 14% of freighter aircraft movements being at night whereas, at EMA, some 63% of freighter movements operate at night. Given the dominance of integrator operations within the total RSP/Azimuth forecast, this would suggest a far greater reliance on night movements than shown. Correcting the day/night balance just for the integrator operation would imply at least 14.4 aircraft movements per night on average for the integrators, rather than the 4 movements shown for these airlines in the detailed fleet forecast. Accommodating these additional movements would breach the night noise quota constraint by c.1,000 a year. In other words, either the noise quota will need to be increased or the forecast will need to be constrained to reflect that these movements are unlikely to operate.

[16] The number will clearly vary day by day in practice.

30. Indeed, the proposed night movement constraint reinforces the view that the establishment of an integrator hub at Manston is simply not credible. If an integrator hub cannot be established this would reduce the movement forecasts by 46%. At Year 10, this would mean no more than 6,425 freighter aircraft movements, even if the remainder of the forecast were correct. If this were to be grown for the longer term using the DfT's historic freight tonnage figures (see paragraph 21 above), the freighter movement forecast at Year 20 would not exceed 7,000 movements, below the threshold for a DCO.

Capability of the Airport

31. We made the point in our earlier report (paragraph 2.93) that we would have expected a clear explanation of how the forecasts for aircraft movements translated into the requirements for infrastructure. This explanation has still not been provided.

32. Prima facie, on the same basis as we assessed the 'capability' of the existing infrastructure at Manston (paragraphs 4.5 and 4.6 of our earlier report), the infrastructure proposed by RSP could have a capability of over 100,000 freighter aircraft movements a year, taking into account the night movement quotas and the passenger operations. This is clearly excessive but not explanation or justification for the scale of the facilities has been provided by RSP.

Azimuth Report Volume IV – The Economic and Social Impacts of Airport Operations

Section 3 – Forecasting the Socio-Economic Impact of Airports

33. Despite the substantial errors in the assessment of socio-economic impacts identified in Section 5 of our earlier report, Azimuth have made no attempt to correct these errors and the economic impact assessment remains as in the original Summer 2017 consultation documents.

34. At Section 3.4, further reference has been added to our 2004 study into the socio-economic impact of airports for the Airports Council International Europe. We had already pointed out to Azimuth in direct correspondence[17] that it was inappropriate to rely on 2004 data as representative of the position in 2017, not least because of increasing efficiency of passenger and cargo handling. Furthermore, as is made clear in Figure 6.5 of our 2004 report[18], the employment densities can vary quite widely across airports dependent on their characteristics so the use of averages is entirely inappropriate for any specific airport. The on-site employment estimates set out at paragraph 5.12 of our earlier report are the correct basis for assessing the employment impact of Manston as these are based on recent experience of specific UK airports, where detailed analysis of the impact has been carried out in recent years, rather than on the generic Europe-wide ratios that Azimuth seek to apply. We have not factored any extraordinary assumptions regarding future automation or productivity growth into our estimates (Azimuth paragraphs 3.46-3.47) so these are conservatively based on average rates of productivity growth as airports grow.

Section 4 – Employment Forecasts for Manston Airport

35. For the reasons explained in our earlier report, the methodology used by Azimuth for deriving indirect, induced and catalytic impacts remains flawed.

36. A new section 4.3 has been added on the location of employment, referring to work by Oxford Economics (OE) for London Luton Airport[19]. This is used by Azimuth to justify the assertion that all on-site employment will be taken by local residents. Unfortunately, Azimuth have not realised that the way in which the employment estimates were derived by OE, using Government business statistics, only measures employment by place of employment and does not reflect the place of residence of those employees so cannot be taken as a reflection of the extent to which jobs at Manston might be taken up by local residents from Thanet.

[17] E-mail of 6th October 2017.

[18] The social and Economic Impact of Airports in Europe, York Aviation for ACI EUROPE 2004

[19] The Economic Impact of London Luton Airport, Oxford Economics, November 2015.

Section 5 – Training and Education

37. New sections have been added in relation to support from East Kent College and Canterbury Christ Church University expressing support for activities that would generate jobs in East Kent. This is not specific to the RSP proposals but would also apply to employment generated through Stone Hill Park's proposals. The future of the Museums would, of course, be enhanced by Stone Hill Park's specific proposals for new facilities and a heritage aviation airport within its proposals. The prospects for a Manston Training Facility are speculative and depend, ultimately, on whether the proposals for the use of the Airport were realised in practice.

Section 6 - Tourism

38. Section 6 is a new section on tourism which is entirely aspirational, with precedents being drawn from the experience of Southend (Azimuth paragraphs 6.4.2 to 6.4.8) following expansion of passenger flights at the Airport. However, the evidence presented is circumstantial and compares tourism expenditure in the Southend area during the recession with more recent (2015) data. It does not directly relate the growth in tourism expenditure of visitors to any data on the extent to which the Airport was a factor in this increase. As is made clear in the reference to Bournemouth Airport (Azimuth paragraph 6.4.14), the ability to use an airport to leverage additional tourist visitors is dependent on the destinations offered, with Germany, Scandinavia and the Netherlands particularly highlighted as places where there is a greater propensity to visit the UK on holiday, although it must be noted that these countries tend to prefer ferry travel and the use of their own car transport more generally over the use of air services.

39. Ultimately, the extent to which Manston might act as a catalyst to inbound tourism depends on the likely route network. The fleet mix forecast (PEIR Appendix 12.3) shows Ryanair as operating 76% of all passenger flights, with the remainder, other than the assumed return of the KLM service, expected to be largely ad hoc charter. Taking an example of the route network which Ryanair might operate from a similar scale of base at Leeds Bradford where the airline handles around 1 million passengers a year similar to the Azimuth projection for Manston, the airline serves the following destinations[20]:

Alicante	Las Palmas
Bratislava	Malaga
Corfu	Malta
Chania	Murcia
Dublin	Palma
Faro	Pisa
Fuerteventura	Riga
Gdansk	Tenerife
Gerona	Venice
Ibiza	Vilnius
Krakow	Warsaw
Limoges	Wroclaw
Lanzarote	

40. The majority of flights (over 59% in the summer tourist season) are to typical outbound leisure destinations and such destinations would, in all likelihood, be those operated initially particularly if our assessment (see paragraph 2.88 of our earlier report) that Azimuth's passenger forecasts are substantially overstated by reference to the level of demand in the Manston catchment area. Overall, it is hard to see how Manston would support a portfolio of routes likely to contribute significantly to inbound tourism nor to greatly assist St Augustine's Divine Retreat Centre (Azimuth paragraph 6.5.2) in marketing its activities, not least as its principal marketing focus appears to be to UK residents.[21]

[20] Based on OAG data for February and July 2018.

[21] http://divineuk.org/about-us/ramsgate/ The organisation operates another retreat centre in Darlington.

41. The suggestion that Manston might support services from China (Azimuth paragraph 6.5.4) lacks any foundation; such services do not form part of the forecasts, passenger aircraft stands and the passenger terminal would not be appropriately sized to handle flights to/from China and only Heathrow and Manchester Airports in the UK manage to sustain regular flights from China at 78mppa and 28mppa respectively. The Manston catchment area would simply not be sufficient to sustain such services and it is not credible that an airport in the 1-2 mppa range (or smaller) would support regular flights to/from China.

42. Overall, the additional material added in relation to the value of tourism does not demonstrate any linkage between the re-opening of Manston Airport and the actual potential impact on tourism in Thanet and Kent.

43. The other comments made by Azimuth about the lack of impact of airport operations on the value of tourism in Southend, Bournemouth and the Southampton area (Azimuth paragraphs 6.4.7, 6.4.14) have to be seen in the context that these airports do not have flight paths over a major tourist area as would clearly be the case with Manston in relation to Ramsgate. In the case of Manston, any negative implications might be expected to be more significant.

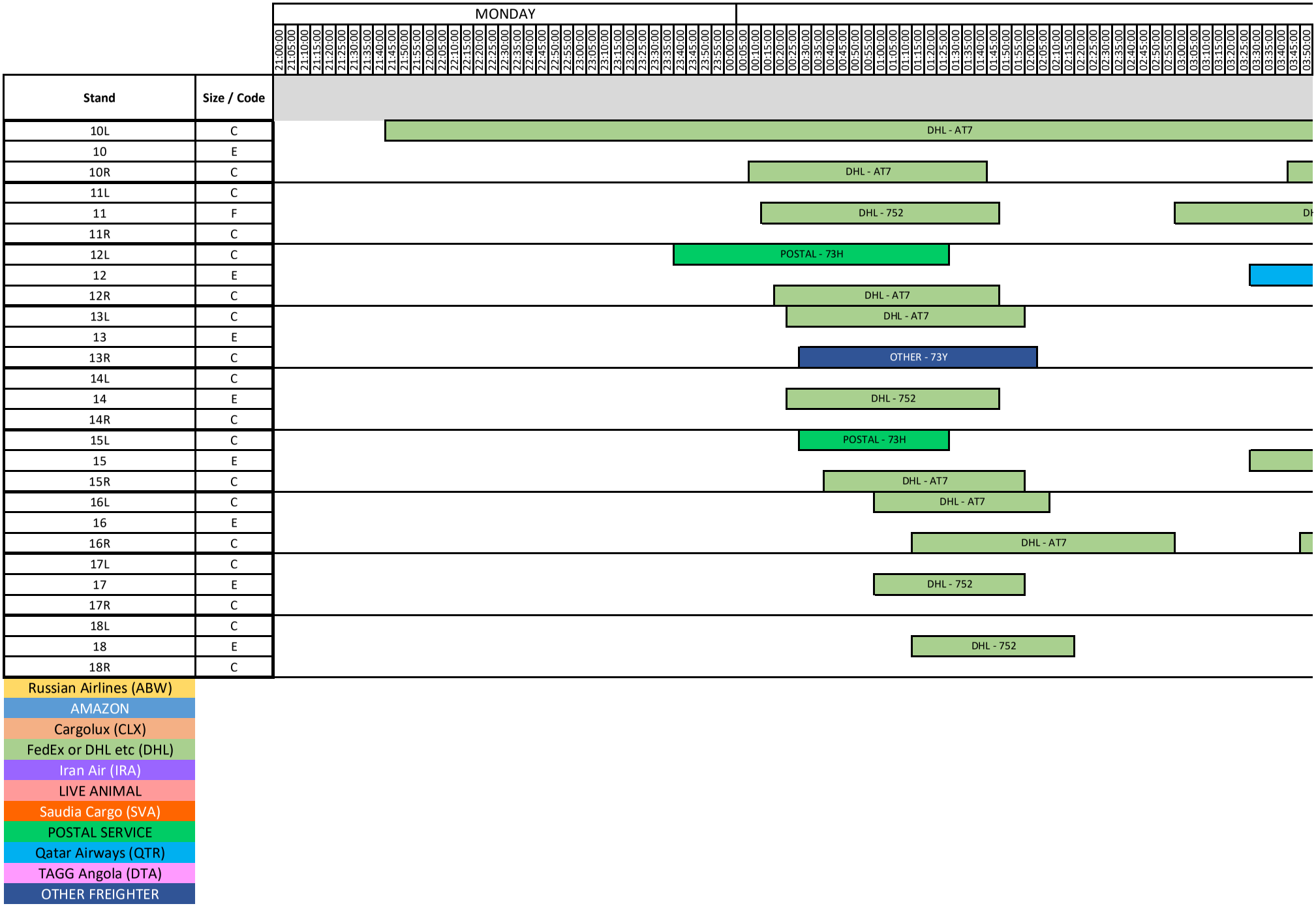
8th February 2018

Appendix 12.3 Fleet Mix, QC points and Aircraft Categories

Airline	Type	Av Movements Day	Av Movements Night	QC A	QC D	Av QC	Total QC	Code
Amazon (US)	B777-300ER	4.6	0.5	1	2	1.5	0.75	E
Cargolux (Africa/Nairobi	B748	1.1	0.1	1	2	1.5	0.15	F
Fedex/DHL	B752	4.1	1.4	0.25	0.5	0.375	0.525	D
Fedex/DHL	A332	4.1	1.4	0.5	1	0.75	1.05	E
Fedex/DHL Feeders	ATR72	10.6	1.2	0.25	0.25	0.25	0.3	B
Fish and crabs (Dubai)	B777-300ER	0.4	0	1	2	1.5	0	E
Iran Air	B777-300ER	4.2	0	1	2	1.5	0	E
Live Animals	B777-300ER	0.4	0	1	2	1.5	0	E
Middle E (Egypt/Saudi	B777-300ER	0.9	0.1	1	2	1.5	0.15	E
PIA	B777-300ER	0.2	0	1	2	1.5	0	E
Post	B737-800	1.1	1.1	0.5	1	0.75	0.825	C
Qatar	B777-300ER	1.6	0	1	2	1.5	0	E
Russian	IL76	2.3	0.3	8	16	12	3.6	D
Russian	AN124	0.8	0.1	2	16	9	0.9	F
TAAG Angola	B748	0.7	0.1	1	2	1.5	0.15	F
Other	B737-300	5.7	0.6	1	0.5	0.75	0.45	C
Military	C17	0	0.1	0.5	2	1.25	0.125	D
Military	C130	0	0.1	0.5	2	1.25	0.125	D
Humanitarian	B748	0.1	0	1	2	1.5	0	F
KLM	F70	4	0	0	0.25	0.125	0	C
Charter	A320	1	0	0.25	1	0.625	0	C
Blue Air	B737-800	1.3	0	0.2	1	0.6	0	C
Cruise Flights	B757-300	0.8	0	0.25	1	0.625	0	D
Ryanair	B737-800	21.9	0	0.5	1	0.75	0	C
Total Freight		**42.9**	**7.1**				**9.1**	
Total		**71.9**	**7.1**				**9.1**	

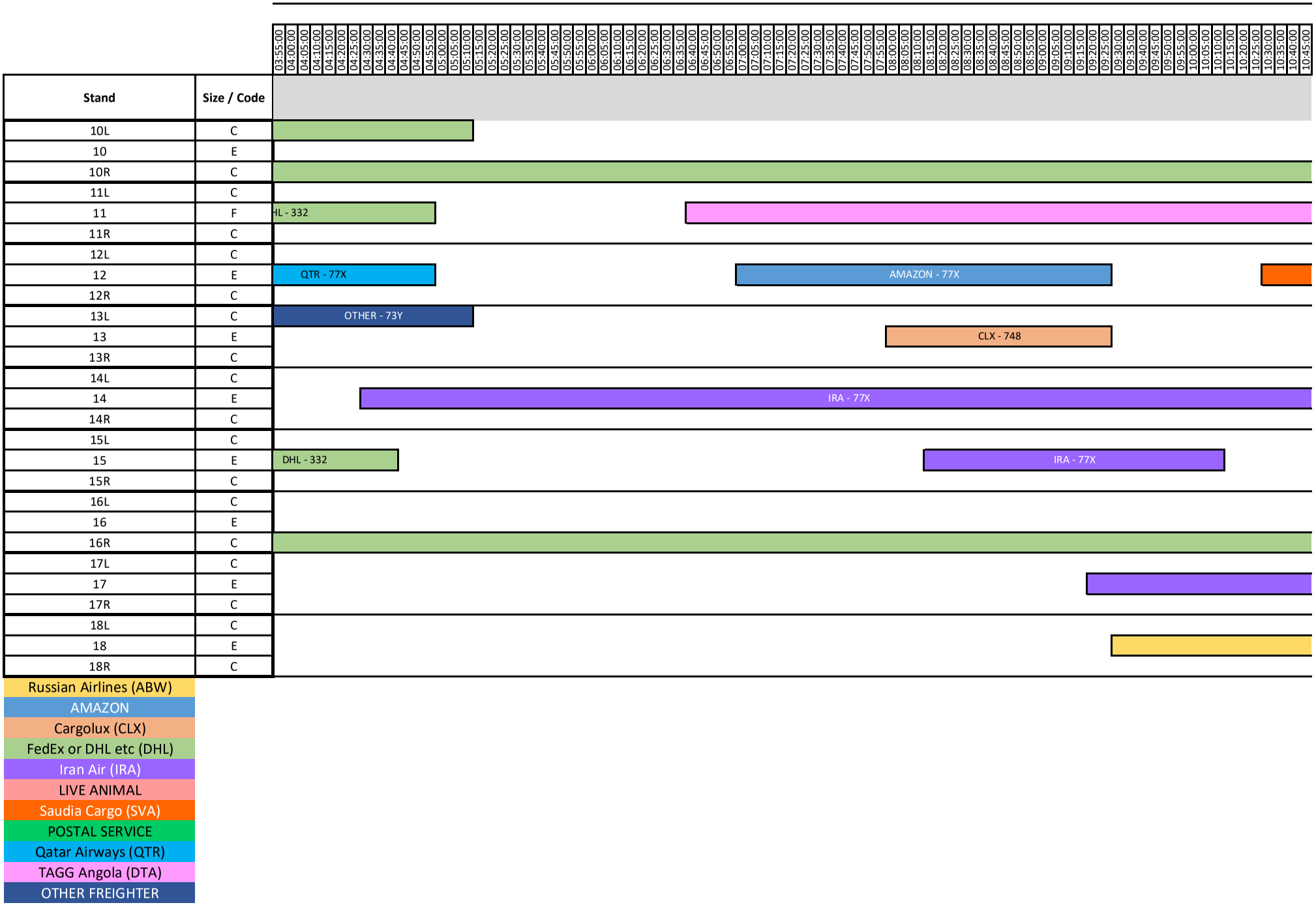
APPENDIX E: INDICATIVE STAND ALLOCATION OF RSP/AZIMUTH AIRCRAFT MOVEMENT PROECTIONS BASED ON A RATIONAL TIMETABLE OF OPERATIONS

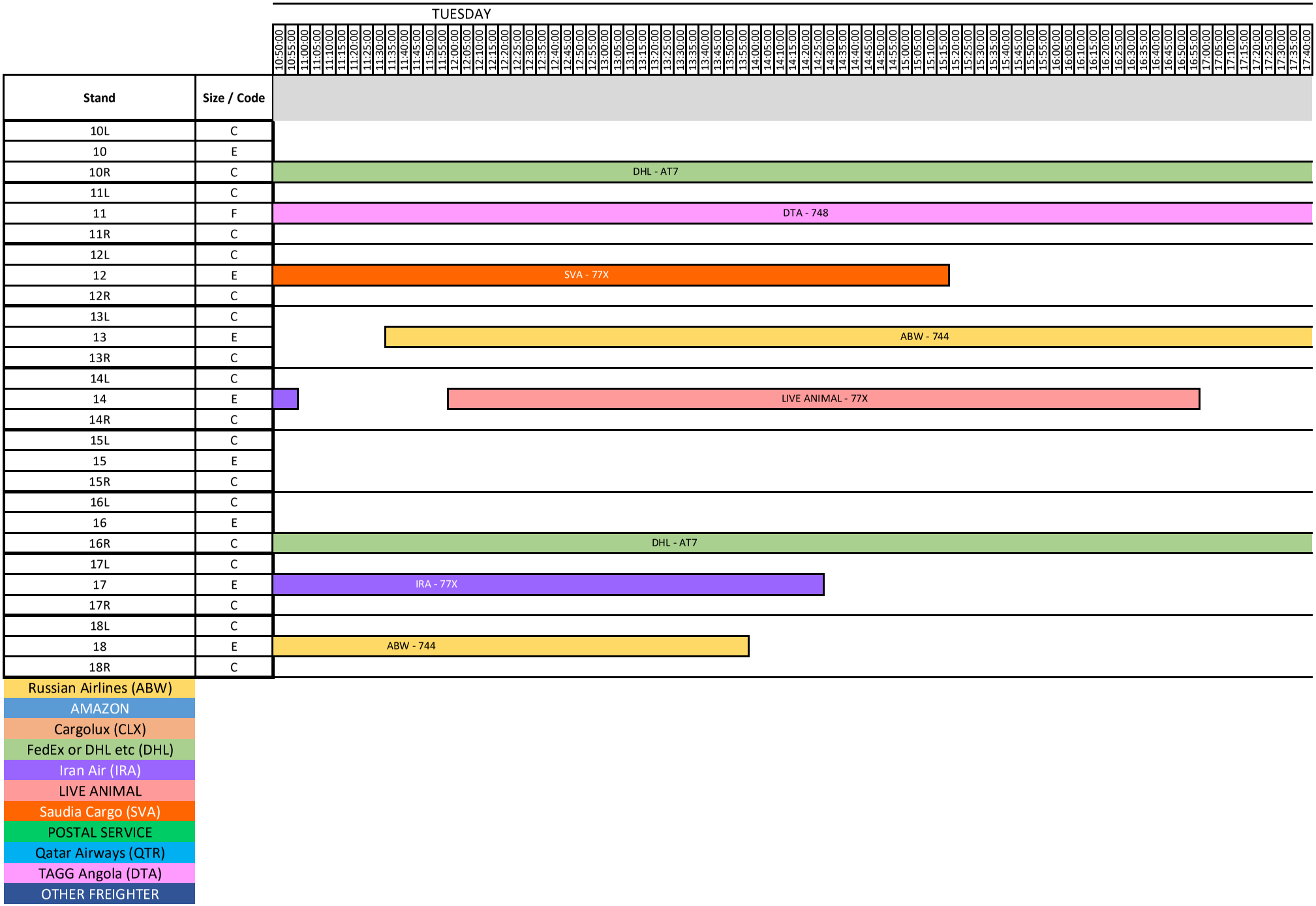
STAND ALLOCATION CHART FOR RSP FORECAST SCHEDULE BASED ON RATIONAL DAY NIGHT SPLIT



Stand	Size / Code
10L	C
10	E
10R	C
11L	C
11	F
11R	C
12L	C
12	E
12R	C
13L	C
13	E
13R	C
14L	C
14	E
14R	C
15L	C
15	E
15R	C
16L	C
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16R	C
17L	C
17	E
17R	C
18L	C
18	E
18R	C

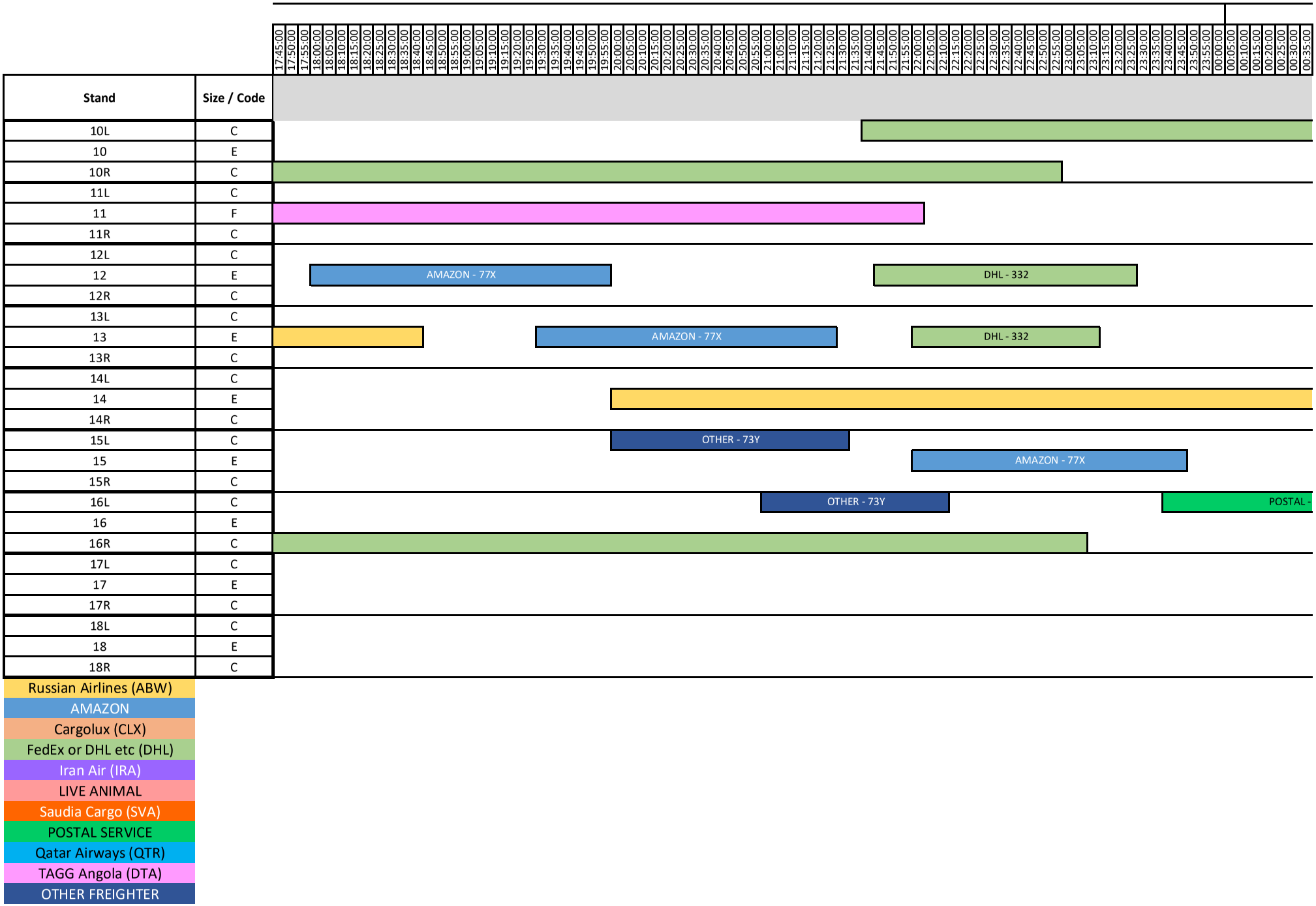
Russian Airlines (ABW)
AMAZON
Cargolux (CLX)
FedEx or DHL etc (DHL)
Iran Air (IRA)
LIVE ANIMAL
Saudia Cargo (SVA)
POSTAL SERVICE
Qatar Airways (QTR)
TAGG Angola (DTA)
OTHER FREIGHTER


03:55:00
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Stand
Size / Code
10L C
10 E
10R C
11L C
11 F
HL - 332
11R C
12L C
12 E
QTR - 77X
AMAZON - 77X
12R C
13L C
OTHER - 73Y
13 E
CLX - 748
13R C
14L C
14 E
IRA - 77X
14R C
15L C
15 E
DHL - 332
IRA - 77X
15R C
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Russian Airlines (ABW)
AMAZON
Cargolux (CLX)
FedEx or DHL etc (DHL)
Iran Air (IRA)
LIVE ANIMAL
Saudia Cargo (SVA)
POSTAL SERVICE
Qatar Airways (QTR)
TAGG Angola (DTA)
OTHER FREIGHTER



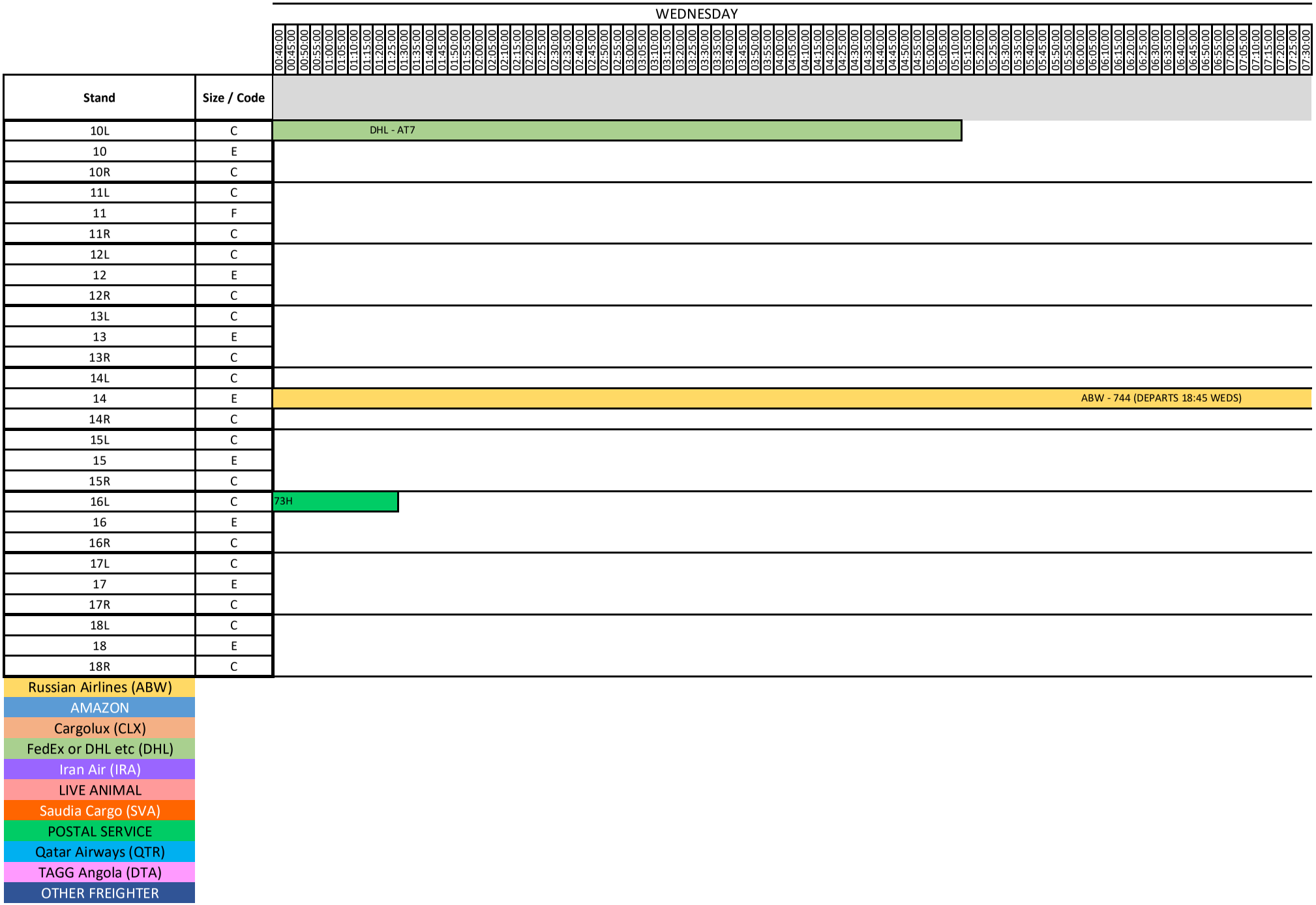
Stand	Size / Code
10L	C
10	E
10R	C
11L	C
11	F
11R	C
12L	C
12	E
12R	C
13L	C
13	E
13R	C
14L	C
14	E
14R	C
15L	C
15	E
15R	C
16L	C
16	E
16R	C
17L	C
17	E
17R	C
18L	C
18	E
18R	C

Russian Airlines (ABW)
AMAZON
Cargolux (CLX)
FedEx or DHL etc (DHL)
Iran Air (IRA)
LIVE ANIMAL
Saudia Cargo (SVA)
POSTAL SERVICE
Qatar Airways (QTR)
TAGG Angola (DTA)
OTHER FREIGHTER



Stand	Size / Code
10L	C
10	E
10R	C
11L	C
11	F
11R	C
12L	C
12	E
12R	C
13L	C
13	E
13R	C
14L	C
14	E
14R	C
15L	C
15	E
15R	C
16L	C
16	E
16R	C
17L	C
17	E
17R	C
18L	C
18	E
18R	C

Russian Airlines (ABW)
AMAZON
Cargolux (CLX)
FedEx or DHL etc (DHL)
Iran Air (IRA)
LIVE ANIMAL
Saudia Cargo (SVA)
POSTAL SERVICE
Qatar Airways (QTR)
TAGG Angola (DTA)
OTHER FREIGHTER



Stand	Size / Code
10L	C
10	E
10R	C
11L	C
11	F
11R	C
12L	C
12	E
12R	C
13L	C
13	E
13R	C
14L	C
14	E
14R	C
15L	C
15	E
15R	C
16L	C
16	E
16R	C
17L	C
17	E
17R	C
18L	C
18	E
18R	C

Russian Airlines (ABW)
AMAZON
Cargolux (CLX)
FedEx or DHL etc (DHL)
Iran Air (IRA)
LIVE ANIMAL
Saudia Cargo (SVA)
POSTAL SERVICE
Qatar Airways (QTR)
TAGG Angola (DTA)
OTHER FREIGHTER

Analysis of the Freight Market Potential of a Reopened Manston Airport – Addendum

UK Regional Airport Financial Performance and Debt Funding Characteristics

Issued: February 2019

Scope of the Report and Limitation of Liability

- This report contains the results of our analysis in relation to potential air cargo demand at the former Manston Airport site and our assessment of the debt funding characteristics of UK regional airports (the "Work"). It has been prepared for Stone Hill Park Limited ("SHP") in connection with the application for a Development Consent Order by RiverOak Strategic Partners Limited and for no other purpose. The application is for the redevelopment and reopening of Manston Airport for international air freight along with passenger, executive travel and aircraft engineering services ("the Project"). The application would also, we understand, seek to compulsorily acquire the whole of the former Manston Airport site from SHP.
- We do not accept a duty of care to any person other than SHP in respect of this report.

ALTITUDE AVIATION ADVISORY LIMITED

February 2019

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1. Overview of Report

1. This report has been commissioned by Stone Hill Park Limited ("SHP"), the owners of the former Manston Airport site. The site is currently subject to an application for a Development Consent Order ("DCO") under the Planning Act 2008 currently promoted by RiverOak Strategic Partners Limited ("RSP"). The application is for the redevelopment and reopening of Manston Airport for international air freight along with passenger, executive travel and aircraft engineering services ("the Project"). RSP contends that the Project is a Nationally Significant Infrastructure Project for airport development for air freight and hence, should fall within the Planning Act 2008. RSP's application also seeks powers of compulsory acquisition over the site, allowing RSP to compel the purchase of the site from SHP's ownership to RSP's ownership. The report has been developed in this context.

2. In 2017, we developed an evidence-based assessment of key issues impacting the future development of air cargo in the UK. This work was completed in October 2017 and published on the Stone Hill Park website in January 2018[1].

3. As part of our work, we reviewed a range of submissions as part of the DCO pre-application process. These included reports commissioned by RSP from Azimuth Associates ("Azimuth")[2] and Northpoint Aviation Services ("Northpoint")[3] and two AviaSolutions reports[4] commissioned by Thanet District Council.

4. Since our work was completed, Azimuth has twice updated its set of reports. First, as part of the consultation process, Azimuth released updated versions of its reports in January 2018[5]. Then in July 2018, a further updated version was issued as part of the DCO application[6]. The changes to the Azimuth reports were relatively minor in substance, while no changes were made to the forecasts presented.

5. The first two parts of this report acts as an addendum to our report issued in January 2018. It covers:

   - A review of relevant developments in the air cargo sector since October 2017 (when our previous analysis was completed).
   - An assessment of relevant new material in the recent Azimuth reports (issued after completion of our January 2018 report).

6. The third part of this report provides an assessment of the debt funding characteristics of UK regional airports. The various submissions by RSP provide very limited information on how the Project would be funded.

   - We highlight the challenges that established small regional airports face in securing funding.
   - In particular, we also outline the typical information sought by providers of debt and / or equity funding for lower throughput UK regional airports.

7. This report also contains an overarching Executive Summary, drawing upon both the original report and new material included in this document.

[1] (Altitude Aviation Advisory, 2018)
[2] (Azimuth Associates, 2017 a), (Azimuth Associates, 2017 b), (Azimuth Associates, 2017 c)
[3] (Northpoint Aviation Services)
[4] (AviaSolutions, 2016), (AviaSolutions, 2017)
[5] (Azimuth Associates, January 2018 a), (Azimuth Associates, January 2018 b), (Azimuth Associates, January 2018 c)
[6] (Azimuth Associates, July 2018 a), (Azimuth Associates, July 2018 b), (Azimuth Associates, July 2018 c)

2. Executive Summary

2.1. Overview

8. We have undertaken an in-depth review of the Azimuth reports, and developed our own analysis of the future potential for freight at a reopened Manston Airport.

    - The Executive Summary sets out our overall conclusions.
    - Full supporting references can be found either in the main body of the report or in our original report.

9. Manston has historically played a role as a niche air freight airport. We do not see potential for a more significant role in the future. This is in contrast to Azimuth. Azimuth's forecasts show the airport more than doubling its previous annual freight record in the first year of freight traffic returning. By year 18 of Azimuth's forecast, Manston is forecast to exceed the 2018 freight tonnage at East Midlands Airport (the largest dedicated freighter hub in the UK). This is simply not credible or likely.

10. We have identified significant weaknesses in the Azimuth analysis and forecasts. The following factors have not been acknowledged and/or adequately reflected:

    - There is no overall shortage of freight capacity in the UK or South East specifically. While Heathrow is constrained, there is significant spare freight capacity at the established dedicated freighter hubs at Stansted and East Midlands.
    - Cargo activity in the UK has become very consolidated on the 3 cargo hubs (Heathrow, Stansted and East Midlands). All three of these airports have plans to significantly expand cargo capacity, and they forecast strong growth in cargo tonnage. Furthermore, other established passenger airports have the capability of handling much higher cargo volumes if demand existed.
    - There has been a strong trend towards bellyhold freight, with the role of dedicated freighters diminishing. The most recent (2017) Department for Transport ("DfT") forecasts to 2050 assume the number of freighter flights in the UK will remain flat at 2016 levels[7].
    - Trucking is a highly integrated component of the air freight business model, and not merely a substitute for air freighter flights when airport capacity is constrained. The increasing use of truck feeder services is due to cost efficiencies and is not restricted to the UK.
    - Manston is in a poor location to serve the wider South East or UK market. Other structural disadvantages include lack of critical mass, lack of a passenger hub, and night flight restrictions. These factors have limited Manston's role to that of a niche freight airport.

11. We consider the Azimuth freight forecasts to be extremely optimistic, with negligible supporting evidence. In particular:

    - Historic performance is ignored (both at Manston or more generally across the UK market – the Azimuth growth forecast for Manston would be unprecedented in a UK context).
    - There is a heavy reliance on qualitative techniques, with no substantive attempt to quantify the size of the markets Manston will be competing in, or how it would gain market share.
    - Many of the references from published studies are too generic to be meaningful or are taken out of context.
    - In making the case for Manston, Azimuth seeks to rely on reports prepared by York Aviation in 2013 and 2015. We share York Aviation's view, as set out in a parallel report commissioned by

[7] (UK Department for Transport, 2017, p. 33)

SHP, that these reports do not support Azimuth's conclusion that there would be a substantive role for Manston in the UK air freight industry.

12. Finally, we also view the Azimuth cargo air transport movement ("ATM") projections for Manston to be very optimistic and again unlikely. The projected average freight loads per flight are much lower than historic levels, and also lower than typically seen at cargo airports specialising in general freight (i.e. with limited integrator presence). Even if the freight forecasts were achieved (which we consider very unlikely), we would anticipate significantly lower numbers of cargo air transport movements.

13. RSP has not provided any detailed business plan / financial forecasts that would be necessary to support either debt and/or equity raising processes. As a start-up business with no track record of performance or profitability, it should be noted that there would be a much higher threshold of information required by funders. With RSP stating that construction will be underway in 2020, it is highly surprising that this information has not been shared with the Examination

14. Based on the analysis of lower throughput UK regional airports and our experience of the UK airport funding market, we would expect RSP to struggle to secure material levels of debt or equity investment for its project.

15. Furthermore, based on our experience and taking into account the very high-level information provided on capital investment, we are of the opinion that the airport is unlikely to be economically viable even if RSP could deliver on its optimistic forecasts.

2.2. Introduction

16. Azimuth has published four reports in support of RSP's DCO application. Volume 1[8] aims to answer the following questions:

> *"Does the UK require additional airport capacity in order to meet its political, economic, and social aims?*
>
> *Should this additional capacity be located in the South East of England?*
>
> *Can Manston Airport, with investment from RiverOak, relieve pressure on the UK network and meet the requirement of a nationally significant infrastructure project?"*

17. Azimuth concludes that *"the answer to each of the above questions is overwhelmingly yes"*. However, the questions conflate different issues. The first two questions provide poor context for the third question and are not relevant to RSP's proposals for Manston.

18. We agree that the UK needs additional airport capacity, and that it should be located in the South East of England. This is not surprising given that:

- In September 2012, the Government asked Howard Davies to chair an independent Commission to identify and recommend options to maintain the UK's position as Europe's most important aviation hub[9] ("the Airports Commission").
- The Airports Commission concluded that "*a new runway in the South East is needed by 2030*". It also "*concluded that the best answer is to expand Heathrow's runway capacity*" as "*Gatwick… is unlikely to provide as much of the type of capacity which is most urgently required: long-haul destinations in new markets. Heathrow can provide that capacity most easily and quickly. The benefits are significantly greater, for business passengers, freight operators and the broader economy*[10]".

[8] (Azimuth Associates, July 2018 a, p. I)
[9] (Airports Commission, 2015, p. 37)
[10] (Airports Commission, 2015, p. 4)

- In October 2016, the Government announced that its preferred scheme to meet the need for new airport capacity in the South East was a Northwest runway at Heathrow. This was subsequently confirmed in the Airports National Policy Statement ("ANPS"), published in June 2018. The ANPS[11] stated that "*expansion at Heathrow Airport delivers the biggest boost in long haul flights, and the greatest benefit therefore to air freight. This is further facilitated by the existing and proposed airport development of freight facilities as part of the Northwest Runway scheme…. Expansion at Heathrow Airport will further strengthen the connections of firms from across the UK to international markets*." The ANPS, ratified by Parliament, has settled the "need" case for the Northwest runway at Heathrow, but no other form of airport development.

19. However, while we agree with the positive response to the first two questions, it does not automatically lead to a "yes" for the third question. The third question covers fundamentally different issues to the first two questions.

20. There are clear distinctions between different types of airport capacity. The Gatwick option would have provided more incremental runway movements than the recommended Heathrow option[12]. However, a key reason for recommending Heathrow was that *"It delivers more substantial economic and strategic benefits than any other shortlisted option, strengthening connectivity…*[13]*"*

21. RSP is promoting a reopened Manston Airport on the basis of providing capacity for dedicated freighter flights:

- Bellyhold freight comprises over 70% of mainland UK[14] freight, a proportion that has been growing since 2004. Azimuth's freight forecasts do not assume any bellyhold freight[15]. We agree with this Azimuth assumption and consider that the development of bellyhold freight at Manston is extremely unlikely.
- Azimuth's forecasts passenger traffic of ca. 1.4 million by the 20th year of operation[16]. We consider these forecasts to be optimistic. However, even taking these forecasts at face value, the passenger throughput would represent less than 1% of 2018 passenger traffic at London airports.

22. Therefore, rather than asking "*Can Manston Airport, with investment from RiverOak, relieve pressure on the UK network and meet the requirement of a nationally significant infrastructure project?*", more relevant, targeted questions would be:

- Considering planned airport expansions, will there be a need for further airport capacity in the UK for dedicated freighters?
- Will the South East in particular require additional capacity for dedicated freighters?
- Would a reopened Manston be well placed to effectively serve a significant proportion of the dedicated freighter market?
- Are there other potential airport options for new dedicated freighter capacity?

23. In the rest of the Executive Summary, we address each of the sub-questions above in turn.

2.3. Need for Further Airport Capacity in the UK for Dedicated Freighters

Current Situation

[11] (UK Department for Transport, June 2018, p. 23)
[12] (Airports Commission, 2015, p. 238)
[13] (Airports Commission, 2015, p. 245)
[14] For data robustness reasons, Northern Ireland airports have been excluded from some of our analysis. In these circumstances, we reference mainland UK as shorthand for England, Scotland and Wales.
[15] (Azimuth Associates, July 2018 c, p. 13)
[16] (Azimuth Associates, July 2018 c, p. I)

24. There is no overall shortage in UK airport capacity for dedicated freighter operations. Both of the two largest freighter hubs, East Midlands and Stansted, can accommodate significantly more freighter services than they currently operate.

25. The UK does lack available dedicated freighter capacity at its major passenger hub airport, Heathrow.

    - Heathrow is also the UK's largest freight airport with ca. 65% of the mainland UK overall throughput.
    - Freight forwarder activity has consolidated around Heathrow on the strength of its extensive network of long-haul passenger services. These services, typically using widebody aircraft, provide substantial bellyhold cargo capacity.
    - At Heathrow, only ca. 5% of freight is carried on dedicated freighters. A lack of available runway slots restricts freighter activity. In the absence of operating constraints, major passenger hubs tend to also play a role as key hubs for freighter aircraft (e.g. Frankfurt). Freighter services complement the connectively provided by passenger flights, while the cargo industry benefits from economies of scale and scope from the consolidation of activity at a hub airport.

26. Where dedicated freighter flights cannot be accommodated at Heathrow (due to capacity constraints), freight customers have the following choices:

    - Operate freighter flights (or use existing freighter flights) from other UK airports where capacity is available (e.g. Stansted, East Midlands).
    - Transport freight in the bellyhold of passenger flights from Heathrow (or other UK airports).
    - Transport freight to a major European air freight hub (e.g. Liege, Frankfurt), typically by road truck.
    - Use surface modes of transport (road, rail, water) for the whole journey (note that this is not a realistic option for most potential air freight consignments due to the distances involved and/or urgency of shipment).

27. Azimuth asserts that UK air freight has been constrained since 2000[17]. Furthermore, Azimuth concludes that shortage of airport capacity is leading to more trucking of freight ("*flying freight from Manston, negating the need to truck, to and from European airports for air transportation*[18]").

28. We consider that these conclusions are highly simplistic:

    - As discussed above, we agree there is a shortage of dedicated freighter capacity at the UK's main passenger hub airport (Heathrow). However, freighter capacity is available at other airports. For example, both Stansted and East Midlands have expanded freighter activity significantly since 2000, and continue to have spare capacity.
    - Therefore, any shortage of air freight capacity in the UK relates specifically to Heathrow hub capacity rather than a more general lack of capacity.
    - Trucking is a highly integrated component of the air freight business model, and not merely a substitute for air freighter flights when airport capacity is constrained. The increasing use of truck feeder services is due to cost efficiencies and is not restricted to the UK. We see no evidence that the growth in trucking is primarily driven by lack of Heathrow capacity for air freighter flights.
    - In any case, even if there were significant levels of trucking caused by constraints at Heathrow, this would only be reduced by the provision of more Heathrow runway capacity. As there is already spare capacity at other airports in the UK, provision of further capacity would not make any significant difference to trucking levels. There is no reason why economic decisions to truck freight rather than fly would change in the absence of new Heathrow capacity.

[17] (Azimuth Associates, July 2018 a, p. 17)
[18] (Azimuth Associates, July 2018 a, p. 40)

Future Requirement

29. We have assessed the future demand for air freight in the UK, reflecting some notable trends:

    - Increasing role of passenger aircraft in the carriage of air freight, and the relative diminishing in importance of freighter aircraft. Passenger demand has developed strongly in recent years. This has led to expansion of cargo capacity in the bellyhold of passenger aircraft outstripping growth in air freight demand.
    - This trend has led to cutbacks in dedicated freighter operations from leading airlines such as Cargolux, IAG, Air France-KLM and Singapore Airlines. In mainland UK, freight tonnes carried on all-freighter aircraft peaked in 2004, and has fallen from 36% of the total air freight to 29% by 2018E. The most recent Department for Transport forecasts to 2050 assume the number of freighter flights in the UK will remain flat at 2016 levels[19].
    - There has also been a clear move towards consolidation of air freight activity at major passenger or freight hubs. In mainland UK, the leading 3 airports (East Midlands, Stansted and Heathrow) have steadily grown their share of overall air freight tonnes on dedicated freighter services – from 44% in 1990 to 88% in 2018E. The mainland UK bellyhold market is even more consolidated, with the leading 3 airports (Heathrow, Manchester, Gatwick) achieving a combined market share of 97%+ in each year since 1996.

30. These fundamental market trends have not been recognised or have been ignored by Azimuth in its assessment of the potential for a reopened Manston.

31. In our original report, we developed a forecast of UK air freight demand to 2050, linked to UK economic growth. We forecast a compound annual growth rate ("CAGR") 2016-40 of 2.4%, much higher than recent growth rates. This results in ca. 4.2m tonnes of demand in 2040. We consider that these forecasts remain valid.

32. Based on published expansion plans and various prudent assumptions, in our original report we estimated that the available air freight capacity at the leading 5 UK airports alone will be around 5m tonnes per year in 2040 (see Section 7.1 of our original report). This is comfortably higher than the envisaged demand levels. Furthermore, the potential freighter capacity is significantly above our freighter demand forecast, and the potential bellyhold capacity is significantly above our bellyhold demand forecast.

    - Since our original report, Heathrow, Gatwick, Stansted and Luton have all either progressed existing expansion plans or identified further capacity enhancements (incremental to the levels identified in the original report).

33. Furthermore, we do not envisage overall capacity shortages in the shorter term. Only towards 2050 could capacity start to become constrained, assuming no further development of capacity from 2040 onwards. Therefore, any business that Manston could capture would primarily be at the expense of other UK airports.

Conclusion

34. The UK currently has sufficient overall airport capacity for air freight, albeit capacity at Heathrow is constrained.

35. Based on planned expansions at the existing major airports, we do not envisage a need for additional freight capacity to be developed in the period to 2040, or possibly 2050.

36. Therefore, there is not a compelling need for development of further airport capacity for freighter aircraft in the UK.

[19] (UK Department for Transport, 2017, p. 33)

2.4. South East Requirement for Additional Dedicated Freighter Capacity

37. Cargo is less time sensitive than passengers. Therefore, an airport's cargo catchment area is typically many times larger than its passenger catchment. This is one of the key factors that leads to the high degree of consolidation seen for air cargo.

    - For example, Leipzig Airport considers its catchment covers a 10-hour trucking radius, while Liege sees its catchment as all areas within access of a full day trucking.
    - East Midlands serves the whole of England and Wales, exploiting its central location in England.
    - Similarly, the extensive network of long haul flights from Heathrow means it attracts freight from the whole of Great Britain.

38. Mainly due to the hub strength of Heathrow, almost 80% of 2018E mainland UK air freight was flown from airports in the South East & East of England. Heathrow and Stansted alone achieved 65% and 9% market share respectively.

39. Much of the UK's high value manufacturing is located outside London and the South East[20]. In Q1 2015, only 15% of UK manufacturing jobs were located in London and South East[21]. Clearly, a substantial proportion of air freight using Heathrow in particular will be travelling to/from other areas of the UK.

40. We do not see a need for new air freight capacity to be located in the South East specifically. New capacity would be most usefully concentrated at existing major air freight hubs, whether in the South East (Heathrow, Stansted) or outside (East Midlands). This would enable the air freight industry to continue to benefit from the economies of scale and scope flowing from market consolidation.

41. The Airports Commission negatively assessed the freight potential of Gatwick due to its location. It stated, "*Gatwick's position to the south of London limits its effectiveness as a national freight hub*[22]." This is consistent with our view that locations which can be accessed from a wide national catchment (whether in the South East or not) are more advantageous than locations in less accessible parts of the South East. We would also consider Gatwick to be a more accessible location than Manston.

2.5. Market Position of a Reopened Manston

42. We have argued above that there is no requirement for additional air freighter capacity in the South East, over and above developments already in the pipeline (being consented or planned) at existing airports.

43. However, even if our assessment is incorrect and further capacity is needed in the future, Manston would not be an effective solution.

44. While a reopened Manston would contribute to overall UK freighter capacity, it clearly would not provide "hub" capacity of the type that is constrained at Heathrow.

    - The inability of Manston to achieve more than 43,000 tonnes[23] in any single year in the period from 2000 until its 2014 closure highlights that the capacity provided at Manston was not a suitable substitute for Heathrow freighter capacity.
    - In the same way, many other UK airports have material underutilised freighter capacity despite Heathrow constraints.

45. Manston's geographical location severely restricts its ability to develop into a national dedicated freighter hub. Were Manston airport to be reopened at some point in future, it would likely be competing directly with East Midlands and Stansted for cargo-only flights. The outlook for the airport in this scenario is poor.

[20] (Heathrow Airport, 2014, p. 19)
[21] (House of Commons Library, 2015, p. 7)
[22] (Airports Commission, 2015, p. 24)
[23] Average ca. 28,000 tonnes/year for the period 2000-2013 (last full year of operation). Source: CAA airport statistics.

46. Firstly, the location of Manston on a peninsula physically limits the size of its catchment area.

- Within a 3-hour drive, only the South East & East of England, and a small part of the Midlands, are accessible.
- In comparison, most of England and Wales can be accessed within 3 hours of East Midlands Airport, while Manston's catchment is essentially a sub-set of the Stansted catchment.
- The case studies of Liege and Leipzig, as well as the strong growth of cargo at East Midlands, indicate the importance of a large catchment area and central location. While these airports attract cargo from an extensive area, they also benefit from strong cargo demand within their immediate catchment.

47. In addition to Manston's poor geographic location, it is also relatively far from important transport infrastructure. The motorway network is not especially close (the airport is ca. 22 miles from the M2 and 38 miles from the M20). Successful freight airports in the UK and Europe have been shown to be extremely close to the national motorway network, helping to minimise the shipper/consignee to airport transport time[24].

48. Secondly, there is a consensus in the air freight industry that the ability to handle night flights is critical for many types of air cargo (in particular for express freight, but also for other types of cargo).

- East Midlands and Stansted are both able to accommodate flights 24 hours per day.
- Both Liege Airport and Leipzig Airport cite the ability to accept night flights, and the support of local government in doing so, as factors in their success.
- It is unclear (in the context of historic restrictions) whether or not night flights would be allowed at Manston Airport were it to reopen. However, it does seem clear that restrictions on night flying would have severe limitations for air cargo potential at the airport.

49. Finally, as noted previously, there is a clear move towards consolidation of freight activity at a few large airports. In order to be successful, Manston would need to reverse this well-established trend. It is not apparent how this could be achieved, even with markedly lower airport charges (which in turn would compromise the financial viability of the airport).

50. Therefore, even if there was a future need for additional airport capacity for freighter activity, Manston is poorly placed in both geographic and potential operational terms to service such a requirement. Other airports are in a much better position to exploit any such future opportunities.

[24] For example, East Midlands Airport is within 3 miles of the M1 motorway. Similarly, Stansted is less than 3 miles of the M11 motorway. The Heathrow Cargo Centre is within 3 miles of the M4, ca. 5 miles from the M25 and ca. 8 miles from the M3.

2.6. Other Potential Options for New Dedicated Freight Capacity

51. Azimuth concludes that "*Manston is the only real choice for the location of a freight-focused airport in the South East of England*[25]". As discussed above, we dispute the need for a new freight-focussed airport, or that any such airport would need to be located in the South East. If new capacity was needed in the South East, a more central location than Manston's position on a peninsula would be desirable.

52. Bournemouth Airport is dismissed by Azimuth on account of its location and distance from the motorway network. We agree that these are significant disadvantages but similar issues apply to Manston (with its location arguably even more compromised than Bournemouth).

- From the South West, West London and the Midlands, Bournemouth is generally more accessible than Manston.[26]
- Bournemouth Airport[27] highlights that:

> *"With ample room to grow, our thriving cargo facility is expanding to meet the demands of importers and exporters from across the UK. Accommodating a huge variety of freight and passenger aircraft, Bournemouth supports cargo logistics round the clock, with the following benefits: 2271m runway, excellent good weather record, congestion free (with no slot restrictions), experienced in handling many cargo aircraft including the AN-124 Ruslan, 'Freighter friendly' airport management."*

53. As discussed, the South East is not necessarily the best location for new freighter capacity. Outside the South East, Doncaster Sheffield Airport has a central UK location. It markets itself as "*the UK's Freighter Gateway*[28]":

> *"At the centre of the UK with easy access to the M18, M1, A1M, M62 and M180 Doncaster- Sheffield is the ideal airport for freighter operations. DSA is justifiably gaining the reputation as the most effective freighter airport in the UK. The attributes that are delivering this include…. exceptional performance record, 24 hour operation, runway 2,893m x 60m, CAT III, Class "D" controlled airspace, no slot constraints/congestion, Competitive jet fuel prices, short taxiing distances, excellent cargo reception and handling, inclusive pricing, NEQ capacity up to 9,300kg Hotac."*

54. Both these airports are currently operational, and benefit from a large site with a long runway. Doncaster Sheffield operates 24 hours a day, whilst night flights at Bournemouth can be arranged with prior notice.

55. Furthermore, Birmingham and Doncaster Sheffield have longer runways than Manston, with spare capacity to develop freighter activity. Both have superior locations than Manston.

[25] (Azimuth Associates, July 2018 a, p. 29)
[26] For example, the following distances have been sourced from Google Maps for the typical fastest routing. Bournemouth Airport to Hounslow: 90 miles, Manston Airport to Hounslow: 103 miles. Bournemouth Airport to Bristol: 70 miles, Manston Airport to Bristol: 201 miles. Bournemouth Airport to Birmingham: 167 miles, Manston Airport to Birmingham: 197 miles.
[27] www.bournemouthairport.com/about-us/doing-business-together/cargo/
[28] www.therouteshop.com/profiles/doncaster-sheffield-airport/

2.7. Conclusion

56. It is highly unlikely that a reopened Manston could play any significant role in serving the needs of the UK air cargo industry. There is currently no shortage of overall capacity, and future demand growth into the long term can be met with planned expansion from the leading cargo airports in the UK.

57. The Azimuth freight forecasts for Manston are summarised below:

- In Year 2 (the first year of freight traffic), tonnage is forecast to be more than double the previous Manston peak annual value.
- By Year 11, freight throughput is forecast at similar tonnage to 2018 Stansted performance. Growth from Year 2 to Year 11 is forecast at CAGR 9.7%.
- By Year 20, Manston is forecast to exceed the 2018 freight tonnage at East Midlands Airport (the largest dedicated freighter hub in the UK).

58. We consider the forecasts to be extremely optimistic, not credible or likely, with negligible supporting evidence.

- Growth in freight at Manston would be unprecedented in a UK market context, and in complete contrast to previous historic performance.
- As discussed previously, we do not expect there to be an overall shortage of freighter capacity in the UK or South East. Even if we are wrong in this assessment, Manston and other smaller airports have shown no signs of benefiting from supposed capacity shortages in recent years. Furthermore, there is demonstrable spare capacity at Stansted and East Midlands, both better established and located.
- The rationale for why Manston will be able to achieve a massive uplift on previous performance is weak. The stated advantages of using Manston were present when the airport struggled to grow freight volumes, despite investment in infrastructure and marketing (the previous owners invested £7m on new aprons and taxiways, increasing the freight capacity to 200,000 tonnes[29] per annum). Lack of Manston capacity was not a factor.
- As well as the forecasts ignoring historic performance, they also do not reflect the very clear market trends towards consolidation of freight at major passenger and dedicated freighter hubs. UK airports outside the major three freight hubs have seen volumes fall. There is also a trend away from freighter services towards bellyhold freight, driven by competitive pricing of bellyhold cargo space (due in turn to strong growth in bellyhold capacity as a result of expansion of passenger services).

59. Manston previously operated as a niche air freight airport. While it could theoretically regain this role in the future, its structural disadvantages (location, lack of critical mass, lack of passenger hub, night flight restrictions etc.) will severely limit its potential. Even if reinvested, relaunched and supported, we would not expect freight volumes to be materially above historic levels, and considerably below the volumes forecast by Azimuth.

60. Finally, the forecast of freighter ATMs is simply not credible.

- By year 20, ca. 17,000 freighter flights are forecast for Manston.
- This represents one-third of current mainland UK freighter flights, in a market where the number of freighter ATMs has been contracting. This trend has been recognised by the DfT, with its 2017 forecasts to 2050 assuming the number of freighter flights in the UK will remain flat at 2016 levels[30].

[29] (Wiggins Group plc, 2002, p. 16)
[30] (UK Department for Transport, 2017, p. 33)

61. In particular, we note that York Aviation's professional opinion[31] is that the capability of Manston Airport is 21,000 annual air cargo aircraft movements. This capacity is more than enough to accommodate any potential a reopened Manston Airport may have.

62. In paragraph 22, we put forward four questions in relation to RSP's proposals for Manston. These are more relevant and targeted than the broader questions posed by Azimuth in its first report[32]. The answers to our questions have been developed over the course of the Executive Summary of this report. We summarise our conclusions in the table below.

Question	Response
Considering planned airport expansions, will there be a need for further airport capacity in the UK for dedicated freighters?	No, planned expansions at existing airports should comfortably provide sufficient freighter capacity until 2040 and beyond.
Will the South East in particular require additional capacity for dedicated freighters?	No, Stansted is planning significant capacity growth. A third runway at Heathrow will provide additional bellyhold capacity (putting downward pressure on freighter demand). Finally, the South East market can be well served by airports more centrally located in England.
Would a reopened Manston be well placed to effectively serve a significant proportion of the dedicated freighter market?	No, a reopened Manston would only serve a niche role, similar to its historic record. It has a poor location and operating restrictions.
Are there other potential airport options for new dedicated freighter capacity?	Yes, there are many UK airports with excess freighter capacity. For example, Doncaster Sheffield Airport has a central UK location. It markets itself as the UK's freighter gateway. It benefits from a large site with a long runway, and has 24 hour operations.

Table 1 – Summary of Analysis of Potential Future Freight Role for a Reopened Manston Airport

63. As can be seen above, when one asks more targeted questions, the outcome is very different to that presented by Azimuth. Our overall conclusion is that the RSP proposals and the Azimuth forecasts are deeply flawed. The outlook put forward by RSP / Azimuth does not reflect market realities. We would expect freight tonnage and freight ATM outturn at a reopened Manston to be considerably below the Azimuth forecasts, in line with previous levels when in operation.

[31] (York Aviation, 2017)
[32] (Azimuth Associates, 2017 a, p. I)

2.8. Addendum

64. There have been some relevant developments in the air cargo sector since October 2018. Cargo demand in the UK and globally was particularly strong at the end of 2017 and in the early months of 2018. However, this was a short-term spike, with UK cargo volumes contracting by the end of 2018. IATA[33] has expressed concerns about the strength of the cargo market globally.

65. In any case, the assessment of future cargo demand for Manston should be based on established historic trends, not short-term fluctuations in demand. Recent developments have not changed our view on the long-term growth potential of the air cargo market in the UK.

66. The general trend towards bellyhold freight has continued (albeit with year to year variations), as has the consolidation of freight at the largest cargo airports. On the supply side, the Heathrow third runway project has continued to progress. Stansted has received planning permission for a lifting of its passenger planning cap, while Gatwick and Luton have brought forward plans to grow capacity.

67. There have been only some relatively minor changes to content in the updated Azimuth reports from the versions we reviewed as part of our previous report. The arguments put forward by Azimuth are fundamentally unchanged, the unrealistic Manston traffic projections have not been modified and the weaknesses we had previously identified have not been addressed.

68. The new Azimuth reports contain some new material. This new material can be broadly characterised as:

- Extrapolation from the (temporary) strong global cargo demand in late 2017/early 2018 to support the long-term case for Manston.
- New references in support of its arguments for the potential of Manston. However, the conclusions drawn from these references are typically inappropriate. A deeper analysis of the new material highlights either limited applicability for Manston or that the new material is not supportive of the case made by Azimuth.
- Additional background material which is not directly relevant to the case for Manston.

69. Therefore, our conclusions from our original report remain valid. The Azimuth forecasts and report do not provide any meaningful evidence that a reopened Manston Airport would be remotely viable.

- The arguments put forward by Azimuth run contrary to well established industry trends.
- The projections put forward have negligible quantitative justification, relying on a range of potential operators which either are unlikely to be interested in Manston or are no longer active in the freighter segment[34].
- There is no convincing reasoning why a reopened Manston would be more successful than other airports with similar characteristics, or that improvements on historic performance could be achieved.

[33] (IATA, 2019)
[34] (York Aviation, 2019, p. 23)

2.9. Funding Viability

70. RSP has provided very limited financial forecasts or financing details relating to the application for the redevelopment and reopening of Manston Airport.

71. The lack of detailed and substantiated financial forecasts, and nothing of substance in relation to how the proposed investment could be commercially financed raises significant questions around the financial viability and fundability of the proposal.

72. The RSP forecasts equate to demand of 3.1m Work Load Units[35] (WLUs) in Year 10. The performance benchmarking illustrates the difficulty that smaller throughput airports up to ca. 3m WLUs per annum have to generate sufficient revenue and profitability to be commercially viable.

73. The financial viability challenges for lower throughput UK airports have been highlighted in recent years with three airports taken over by the public sector, where experienced private sector operators could not operate these airports on a viable commercial basis:

- **Glasgow Prestwick Airport**: purchased by Scottish Government for a reported £1 in 2013. Since taking ownership, the Scottish Government has provided loans of ca. £38m. The business reported a post-tax loss of £7.6m in the year to 31st March 2018. We also note that Infratil was a previous owner of Manston Airport and, despite having airport experience from its 66% ownership of Wellington Airport in New Zealand (with 6.3m passengers in 2018), was unable to develop either Prestwick or Manston into sustainable businesses.
- **Cardiff Airport**: purchased by the Welsh Government for a reported £52m in 2013. Since taking ownership, the Welsh Government has provided loans of ca. £14m. The business reported a post-tax loss of £5.6m in the year to 31st March 2018. The previous owner, Abertis, was an experienced operator of Belfast International and Luton airports in the UK and a number of international airports. Despite this, passenger numbers declined from ca. 2m in 2007 to just over 1.0m in 2012.
- **Durham Tees Valley Airport:** purchase announced in January 2019 by Tees Valley Combined Authority for a reported £40m. The business reported a post-tax loss of £2.4m in the year to 31st March 2017. Current owner, Peel Group, is an experienced operator of Liverpool and Doncaster Sheffield airports.

74. This context is important for the proposed reopening of Manston Airport as the analysis illustrates:

- A significant level of throughput is required to generate sufficient revenue to result in positive EBITDA[36] to service debt and / or capital investment – London Southend and Cardiff with 1.1m and 1.5m WLUs respectively achieved marginally positive EBITDA but posted large post-tax losses.
- Commercial lenders and equity providers will expect a track record of EBITDA generation to support funding of the business. A reopened Manston Airport would be a start-up business with a material capital investment requirement and no history of profitability.
- Our experience is that commercial debt and equity providers would be unlikely to provide funding to a reopened Manston Airport on a standalone basis without (i) parent company guarantees (from an entity of sufficient financial standing), and (ii) strong evidence of clear contractual volume and revenue commitments from airline users.
- The benchmarking indicates that a significant proportion (or all) of the funding would need to be provided by way of shareholder loans, as the required levels would not be available from debt providers.
- Based on the analysis of lower throughput UK regional airports and our experience of the UK airport debt market, we would expect a reopened Manston Airport to struggle to secure material

[35] A Work Load Unit = 1 passenger or 100kg of cargo
[36] EBITDA is earnings before interest, tax, depreciation and amortisation

levels of debt in the commercial lending market. As equity funders would also require detailed business plan information to inform their investment decisions, we would expect RSP to struggle to secure material equity investment given the loss-making history of the business over many years.

- RSP's application documents do not provide the most basic information that would allow any funder (debt or equity) to assess the financial viability of a reopened airport.
- Without a detailed business plan and supporting financial forecasts with detailed cost and revenue assumptions and supporting information that can be assessed and tested, there is little prospect of RSP raising any debt and / or investor finance from parties that would ordinarily fund UK airports.
- With RSP stating that construction will be underway in 2020, it is surprising that this information is not available and been shared with the Examination.
- The financial viability challenges for lower throughput UK airports have been highlighted in recent years with three airports being taken over by the public sector. Where new airports across Europe have been developed or airports reopened, it is highly unusual that the public sector has not made a material financial contribution to the viability of the proposals. The potential wider economic benefits to the region are usually cited to justify public sector investment (as was the case for the Cardiff and Prestwick airport investments by the public sector).
- No public sector investment is proposed by RSP which is likely to make funding of the proposal even more challenging on a commercial basis.
- Notwithstanding this, based on our experience and taking into account the very high level information provided on capital investment, we are of the opinion that the airport is unlikely to be economically viable even if RSP could deliver on its highly optimistic forecasts.
- Our expertise of supporting many institutional investors in the UK and international airport sector confirms that they would have the same issues and challenges as a debt provider with the lack of financial information related to the deliverability and viability of the RSP proposals.
- A further material issue for the RSP proposal is the much higher threshold of information required to satisfy debt or equity providers for a start-up business with no track record of performance or profitability. This is particularly the case where the project sponsor has no demonstrable track record of developing or operating a commercially successful airport business. This lack of experience and credibility is likely to be a major issue for potential debt and/or equity providers.

3. Review of Recent Developments

3.1. Cargo Demand Growth

75. Since 1990, the UK air freight market can be divided into two distinct periods based on the growth trends seen. The period 1990-2000 was generally one of strong growth, with CAGR of 6.9% and positive annual growth in 9 of 10 years. In contrast, the period from 2000-2016 (as highlighted in our previous report) was one of stagnation (CAGR 0.2%, positive annual growth in only 8 of 16 years).

76. 2017 was a much stronger year for UK air freight, with a 10% increase in the tonnes handled at mainland UK airports. However, growth as not sustained in 2018, where the estimated outturn was flat[37]. Furthermore, as we highlight later in this report, the growth in demand did not translate into more freighter activity.

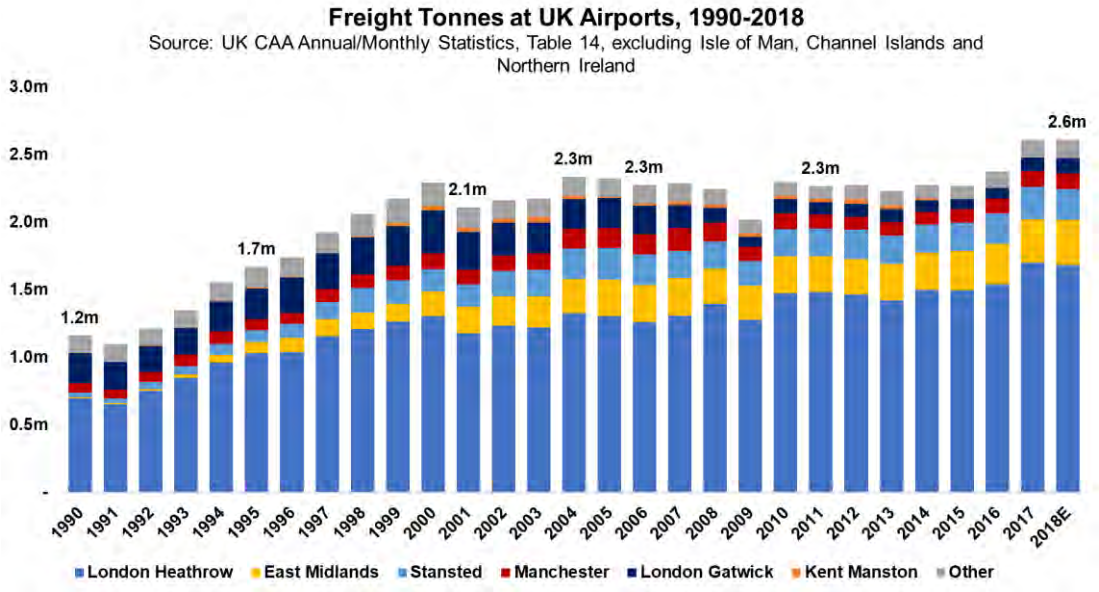


Figure 1 – Timeseries of mainland UK freight tonnage[38]

77. The short-term spike in demand was consistent with global trends. IATA reported that 2017 global air freight demand grew by 9.0%, measured in freight tonne kilometres[39], while European airlines recorded an 11.8% increase.

> *"Full-year 2017 demand for air freight grew at twice the pace of the expansion in world trade (4.3%). This outperformance was a result of strong global demand for manufacturing exports as companies moved to restock inventories quickly.*
>
> *Air cargo had its strongest performance since the rebound from the global financial crisis in 2010. Demand grew by 9.0%. That outpaced the industry-wide growth in both cargo capacity and in passenger demand. We saw improvements in load factors, yields and revenues. Air cargo is still a very tough and competitive business, but the developments in 2017 were the most positive that we have seen in a very long time."*

[37] In this report, we have estimated 2018 outturns for the UK from monthly CAA data. Traffic for the first 11 months of the year has been published. At the time of completion of this report, the December 2018 statistics were not complete. Data from airports representing around 7% of cargo tonnage had not yet reported. We have assumed that the trends for these "missing" airports were the same as for the reporting airports.

[38] In this report, we have removed Northern Ireland airports from our analysis of the UK market. We understand that there have been some data reliability issues with the Belfast International Airport cargo statistics. This was referenced on P68 of the Department for Transport UK Aviation Forecasts from 2017 (UK Department for Transport, 2017).

[39] (IATA, 2018)

78. However, more recent data indicates this period of strong growth has come to an end. Since June 2018, monthly growth in freight tonnes across mainland UK airports has been low or negative, with the trend generally worsening.

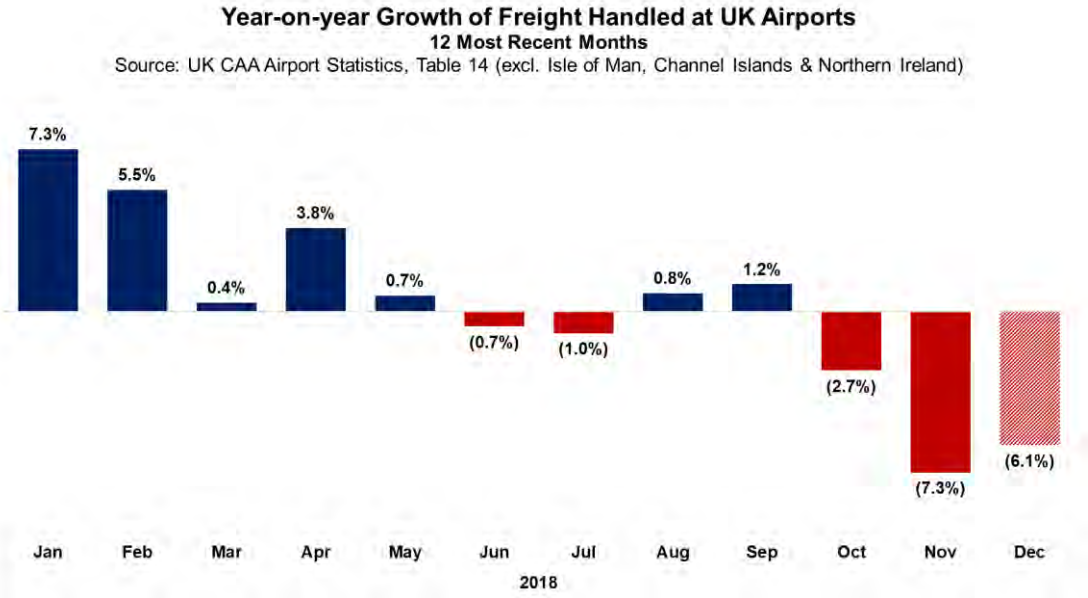


Figure 2 – Monthly freight tonnes at mainland UK airports (December estimated from preliminary results)

79. Global air freight demand has also been cooling and there is some caution about the outlook for 2019. In December 2018, global freight traffic declined compared to December 2017[40].

> *"Air cargo's performance in 2018 was sealed by a softening in demand in December. Year-on-year, December demand decreased by 0.5%. This was the worst performance since March 2016. Freight capacity, however, grew by 3.8%. This was the tenth month in a row that year-on-year capacity growth outstripped demand growth.*
>
> *International e-commerce grew in 2018 which was a positive factor for the year. Yet, there was a softening of several key demand drivers:*
>
> - *The restocking cycle, during which businesses rapidly built up inventories to meet demand, ended in early 2018;*
> - *Global economic activity weakened;*
> - *The export order books of all major exporting nations, with the exception of the US, contracted in the second half of 2018;*
> - *Consumer confidence weakened compared to very high levels at the beginning of 2018.*
>
> *"Air cargo demand lost momentum towards the end of 2018 in the face of weakening global trade, sagging consumer confidence and geopolitical headwinds. Still, demand grew by 3.5% compared to 2017. We are cautiously optimistic that demand will grow in the region of 3.7% in 2019. But with the persistence of trade tensions and protectionist actions by some governments there is significant downside risk. Keeping borders open to people and to trade is critical," said Alexandre de Juniac, IATA's Director General and CEO."*

[40] (IATA, 2019)

80. In our previous report, we forecast that the UK air freight market would grow by CAGR 2.4% to 2040. This level of growth is well ahead of overall trends since 2000.

- The strong growth recorded in 2017 and the first part of 2018 has not been sustained. A characteristic of the air cargo sector is temporary fluctuations in demand.
- Therefore, it is premature to reassess potential future growth rates until there is evidence of a continued uplift in growth rates.

3.2. Freighter vs. Bellyhold

81. One of the key trends seen in the UK has been the increasing role of passenger aircraft for carrying cargo, with the role of freighter aircraft diminishing. In 2004, freight carried on cargo only flights accounted for 37% of the mainland UK market. This has been consistently reducing, falling to 29% of the market by 2018E.

- While freight carried on all cargo aircraft grew in absolute terms in 2017, passenger aircraft bellyhold freight grew significantly faster.
- In 2018, we estimate that freight carried on all cargo aircraft fell in absolute terms, resulting in a further drop in share of total cargo.

82. Therefore, the established trend towards bellyhold freight has continued in both 2017 and 2018. The all-cargo segment that a reopened Manston would be targeting has become less important within the UK market.

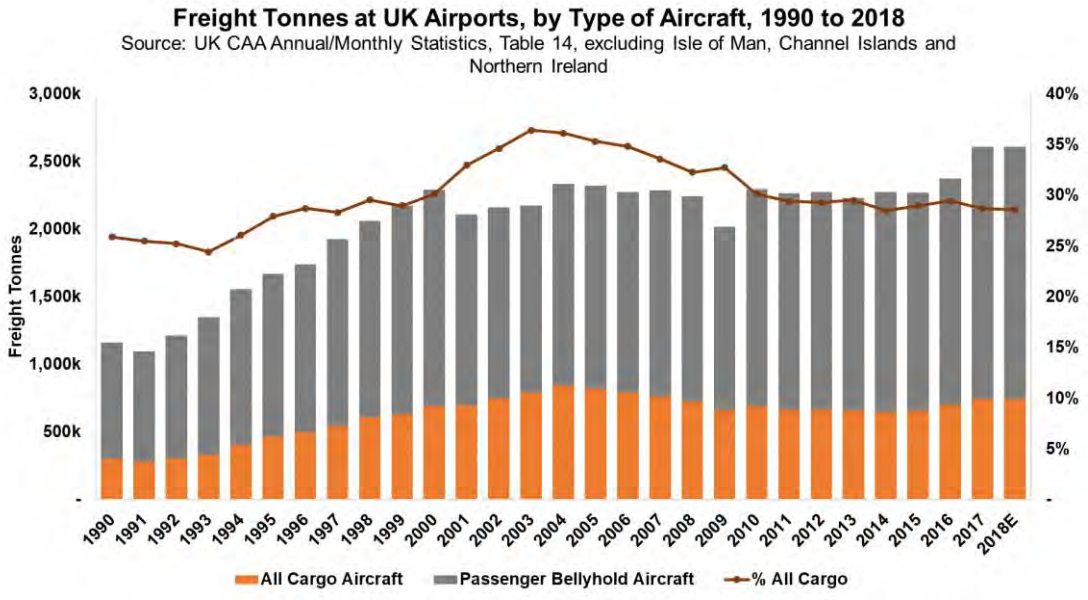


Figure 3 – Annual freight tonnes at mainland UK airports by type of aircraft

3.3. Consolidation Trend of Cargo-only Operations at Main Airports

83. In 1990, there were many UK airports from which carriers operated cargo only flights. Since then, there has been a very clear trend to consolidate cargo only operations at a few airports.

84. 2017 and 2018 have seen the continuation of this consolidation trend. The three largest airports for freight carried on cargo only aircraft (Heathrow, East Midlands, Stansted) accounted for 87.6% of this mainland UK market (by tonnage) in 2018E. This is up from 44% in 1990 and 86.7% in 2016.

85. Similarly, the consolidation trend at these top three airports continued for freighter ATMs in both 2017 and 2018. Despite strong growth in overall cargo volumes in 2017, the number of freighter movements across mainland UK actually fell. We estimate that there was a further drop in 2018.

- This indicates that even during spikes in cargo demand, this has not translated into additional freighter activity.
- The additional demand has been accommodated through a combination of greater use of passenger aircraft bellyhold capacity and increasing average loads per freighter aircraft.

86. These freighter flights have been increasingly concentrated on East Midlands, Heathrow and Stansted. We estimate that these three airports accounted for 68.4% of all cargo flights in 2018, compared to 65.0% in 2016 (and 23.3% in 1990).

- Number of freighter flights at "other" airports has fallen from ca. 73,000 in 1990 to ca. 16,000 in 2018E.

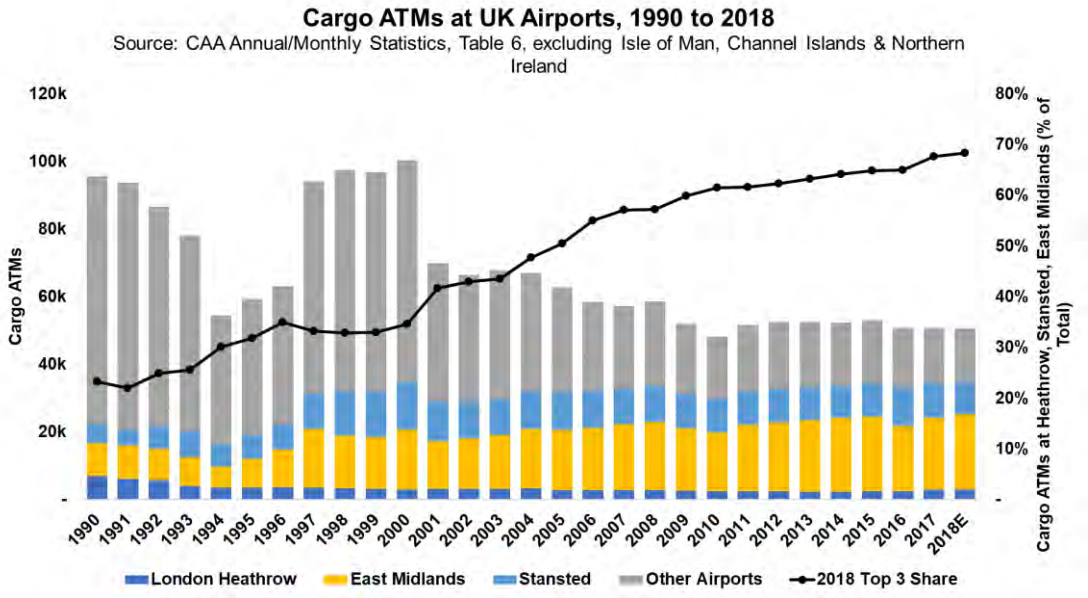


Figure 4 – Annual cargo flights at mainland UK airports

3.4. Developments at Individual Airports

Heathrow

87. Heathrow recorded strong freight growth in 2017, highlighting that there remains scope to grow even before the third runway is opened.

- +15.6% increase in freight carried on all-cargo aircraft (4th consecutive year of growth).
- +9.9% growth in freight carried in the bellyhold of passenger aircraft.
- Source: UK CAA Statistics.

88. The airport has reported marginal growth in cargo in 2018 (+0.1%), reflecting the more challenging market conditions[41].

89. Progress towards the opening of a third runway has continued, with the UK Parliament voting to approve the Airports National Policy Statement, which provides support for Heathrow expansion, by 415 votes to 119 in June 2018.

- Our previous report (Section 6.2) highlighted Heathrow's strategy to improve cargo competitiveness and lift freight volumes to 3 million tonnes a year by 2040 (compared to ca. 1.7m tonnes in 2018).

90. In January 2019, Heathrow launched an airspace consultation process[42], which includes plans to increase the number of flights operated off the existing two runways.

> *"We are exploring plans to use the existing runways more to create up to 25,000 ATMs per year. This would be in advance of the completion of the third runway and could only happen if consent for expansion is granted."*

Gatwick

91. Gatwick has continued to grow cargo volumes, linked to the development of long-haul passenger services using widebody aircraft. Cargo tonnes grew by 16.1% in 2018[43], following growth of +24.4% in 2017[44].

92. As of 2018, only 11% of ATMs at Gatwick were used by widebody aircraft (source: OAG). Thus, there is significant scope for Gatwick to increase its cargo capacity by increasing the share of widebody aircraft using the airport. To some extent this will happen naturally as passenger demand increases. Widebody share has risen in every year since 2014 (from 7.3% in 2014, to 11.2% in 2018).

93. Gatwick[45] is also exploring the potential utilisation of its existing standby runway, to increase the number of flights it can operate.

> *"… this draft master plan also sets out for the first time how the airport could meet future demand by potentially using our existing standby runway for departing flights only, alongside our main runway. We believe this development could be delivered by the mid-2020s, with relatively little disruption..."*

94. The scheme has the potential to increase the number of flights operated at the airport to 375,000–390,000, compared to 315,000-340,000 potentially achievable from the main runway only. Note in 2017/18, the actual number of flights was just above 280,000[46].

[41] (Heathrow Airport, 2019 a)
[42] (Heathrow Airport, 2019 b, p. 13)
[43] (Gatwick Airport, 2019)
[44] (Gatwick Airport, 2018 a)
[45] (Gatwick Airport, 2018 b, p. 7)
[46] (Gatwick Airport, 2018 b, pp. 80, 88)

Stansted

95. In 2018, Stansted was successful in its application to increase the planning condition limiting its passenger throughput. Its passenger cap was lifted to 43 million passengers per annum, compared to the previous limit of 35 million passengers[47].

96. In relation to air transport movements, the airport previously was constrained by the following annual limits:

- Passenger ATMs: A maximum of 243,500 p.a.
- Cargo ATMs: A maximum of 20,500 p.a.
- Other ATMs: A maximum of 10,000 p.a.

97. The new application did not raise the overall number of flights allowed (274,000) but abolished the sub-categories. This means there is now no specific limit to the number of cargo or passenger flights that can be operated in the future (within the overall cap).

Luton

98. Luton Airport currently is subject to a planning cap of 18 million passengers per annum. The freehold owners of Luton Airport (London Luton Airport Limited, a Luton Council company) have issued its vision[48] for development of the airport to 2050. It envisages growth up to 36-38 million passengers per year.

> *"To make the best use of the existing runway at LTN to provide the maximum benefit to the local and sub-regional economy; to deliver good levels of service; and to actively manage environmental impacts at the local and wider levels in line with our commitment to responsible and sustainable development."*
>
> *Our assessment is that the capacity of the existing runway is 36-38 mppa, or in the region of 240,000 aircraft movements[49] per year."*

[47] (Stansted Airport, 2018 b), (Stansted Airport, 2018 a, pp. 4, 26)
[48] (London Luton Airport Limited, December 2017, p. 5)
[49] During 2018, there were just over 105,000 air transport movements at Luton (source: UK CAA Statistics), less than half the assessed runway capacity.

3.5. Summary

99. There have been some relevant developments in the air cargo sector since October 2018. Cargo demand in the UK and globally was particularly strong at the end of 2017 and in the early months of 2018. However, this was a short-term event, with UK cargo volumes contracting by the end of 2018. IATA[50] has expressed concerns about the strength of the cargo market globally.

100. In any case, the assessment of future cargo demand for Manston should be based on established historic trends, not short-term fluctuations in demand. Recent developments have not changed our view on the long-term growth potential of the air cargo market in the UK. The general trend towards bellyhold freight has continued (albeit with year to year variations), as has the consolidation of freight at the largest cargo airports. Finally, despite strong growth in cargo demand in 2017, the number of freighter flights in the UK actually reduced.

101. In the period since our previous report, both Heathrow and Gatwick have recorded substantive growth in air freight tonnage. This demonstrates the continuing role both airports will play in meeting future demand. As both Heathrow and Gatwick grow the proportion of long-haul widebody passenger flights, this will generate incremental bellyhold capacity.

102. Furthermore, the four largest airports in the London airport system have all recently presented plans to add capacity in the medium term, prior to the proposed new runway at Heathrow. The scale of these proposed developments – if implemented – will make a significant contribution to relieving future airport capacity pressures. This is in addition to the forthcoming capacity increases that were highlighted in Section 6.4 of our previous report.

[50] (IATA, 2019)

4. Review of Recent Azimuth Reports

4.1. Introduction

103. Since we completed our analysis for our previous report, Azimuth has twice updated its set of reports. First, as part of the consultation process, Azimuth released an updated version of its set of reports in January 2018[51]. Then in July 2018, a further updated version was issued as part of the DCO application[52].

104. We have reviewed both sets of Azimuth reports.

- Much of the Azimuth reports are unchanged from the original version. We therefore do not duplicate our critique from the previous report.
- Where significant new material has been added, this has been critiqued.
- However, we have not commented on general background or non-material additions to the Azimuth reports.

105. The rest of this section reviews each Azimuth report in turn, in chronological order. Where new material appears more than once (e.g. in the Executive Summary and the main body of text, or in both sets of reports), we only comment on the first occurrence.

4.2. Reports Supporting Consultation Process (January 2018)

Volume I

106. Azimuth[53] refers to airfreight in Europe reaching capacity in 2017:

> *"At the end of November 2017, airfreight in Europe reached capacity, which has led to an increase in prices and delays[.] Heathrow Airport also reported severe congestion, with trucks queuing and some being turned away."*

107. It could be wrongly inferred that the lack of capacity being discussed relates to airport capacity. In fact, the situation appears to have been caused by a lack of airline capacity due to seasonal peaks (freight demand can be very lumpy).

- As noted above (see paragraph 77), in 2017 freight demand grew faster than airline capacity.
- This situation reversed in 2018 (see paragraph 79).
- In any case, there was no shortage of available airport capacity at all but the most congested passenger hubs.

108. Azimuth[54] also restates similar arguments as previously put forward in relation to the low level of freighter activity in the UK.

> *"… However, when the air freight market in the UK is considered against that of Europe, the lack of availability in the UK for freighter slots, airports' preference, in a constrained market, for passenger flights, and delays in loading and unloading freighter aircraft provide an equally plausible explanation for the reduced proportion of freighter to belly freight transport of goods in the UK."*

109. This argument ignores the availability of freighter capacity at centrally located airports such as East Midlands Airport. Other regional airports with the capacity to accommodate substantial freighter

[51] (Azimuth Associates, January 2018 a), (Azimuth Associates, January 2018 b), (Azimuth Associates, January 2018 c)
[52] (Azimuth Associates, July 2018 a), (Azimuth Associates, July 2018 b), (Azimuth Associates, July 2018 c)
[53] (Azimuth Associates, January 2018 a, p. I)
[54] (Azimuth Associates, January 2018 a, p. II)

operations include Doncaster Sheffield, Manchester, Liverpool and Prestwick (see Section 6.3 of our previous report).

110. Azimuth[55] refers to updated aviation demand forecasts:

> *"Chris Grayling MP, Secretary of State for Transport said that evidence from updated aviation demand forecasts, 'show that the need for additional runway capacity is even greater than originally thought. They show that all 5 of London's main airports will be completely full by the mid-2030s, and 4 of them within a decade.' "*

111. We have previously shown that Heathrow, Gatwick, Stansted and Luton have all recently presented plans to develop capacity (see Section 3.4). In all cases, the additional capacity is beyond what was envisaged by the Airports Commission[56] in its assessment of the potential for maximising existing runway capacity.

112. Furthermore, as discussed in the previous report[57], more centrally located airports such as East Midlands Airport are better placed to serve UK freight demand than London airports.

113. Azimuth[58] comments on congestion at Heathrow.

> *"Heathrow …. has seen cargo volumes increase by 10% this year, leading to congestion, delays and an inability to reach the airport's cargo centre."*

114. It is worth clarifying that the congestion is related to road access, rather than airport capacity itself. These road congestion issues are in the process of being addressed.

115. There are also references to recent developments at Amsterdam Schiphol Airport. Firstly[59], a parallel is drawn with Stansted Airport in relation to the possibility of freighter flights being displaced.

> *"Ryanair is the dominant carrier at Stansted Airport and, since the low cost carrier (LCC) model is based on fast turnarounds, the airline will not tolerate interference from cargo handling. Ryanair is increasing their offering to more distant destinations including Turkey, North Africa, Cyprus and the Middle East. For the airline to operate four rotations per day to maximise the profitability of each aircraft, late evening and potentially night time slots will be required….*
>
> *Freight carriers have traditionally used night slots at the airport and these may become less available if the LCCs utilise them. This situation occurred at Schiphol Airport (see Section 7.5 for more details), where air traffic capacity constraints were announced in September 2017. These constraints particularly affected freight operators, as passenger flights were preferenced for a number of reasons. As such, it may be that moving freight to Manston Airport could represent a significant opportunity for MAG should they want to free up slots for higher value passenger aircraft use."*

116. Low cost carriers and cargo airlines can coexist at airports (for example, East Midlands). The potential loss of night slots to low cost carriers at Stansted is purely speculative. Schiphol (one of Europe's major passenger connecting hubs) is not a good comparator airport to Stansted (a low cost carrier focussed airport).

117. The Azimuth report[60] then goes on to speculate:

> *"Manston Airport, focused on air freight, may benefit from the relocation of operations from Schiphol and the knock-on effect in northern Europe…. A freight-focused operation at*

[55] (Azimuth Associates, January 2018 a, p. 6)
[56] (Airports Commission, 2015)
[57] (Altitude Aviation Advisory, 2018, p. 47)
[58] (Azimuth Associates, January 2018 a, p. 11)
[59] (Azimuth Associates, January 2018 a, p. 17)
[60] (Azimuth Associates, January 2018 a, p. 38)

Manston Airport, in the South East of England but close to the rest of Europe, may provide an ideal option."

118. Manston is hardly in an ideal location to act as on overflow from Schiphol. Lelystad Airport, 45km to the north east of Amsterdam is being designated as an overflow airport from 2020. Otherwise, Liege and Leipzig (leading cargo hubs) are much more closely located to Schiphol than Manston.

119. On a separate point, we note that Schiphol saw a reduction in freighter flights of 10.4% in 2018 (due to slot restrictions), but cargo volumes only reduced by 2.5%. This is another illustration of the role passenger bellyhold capacity plays[61].

120. Finally, Azimuth refers on various occasions to recent strong growth in cargo demand. In Section 3.1 we highlight that growth in recent months has been slowing or negative. Furthermore, we argue it is more robust to base future projections on long established trends rather than short term spikes in demand.

Volume III

121. Azimuth make a couple of observations in relation to its forecasts.

"… However, in order to avoid any bias (optimism or pessimism), efforts to quality assure the analysis should be made. For this study, the methodology used to forecast air freight traffic has been peer reviewed by Loughborough University and by the RiverOak consultancy team.[62]"

"Some commentators believe that combining the volume and weight load factors would result in a considerably different, more successful, picture of the airfreight industry…. …. coupled with the potential for current reporting to underestimate the success of the airfreight industry, the DfT figure of 4% has been used to uplift on the Year 10 figures to extrapolate the long-term forecast for Manston Airport[63]."

122. We have not seen any evidence of satisfactory peer review.

- Clearly, the RiverOak consultancy team is not an independent reviewer, nor likely to have the specialist aviation expertise to adequately peer review the methodology.
- The reference to peer review by Loughborough University is not clear – we cannot see any further reference to a Loughborough University review of the Azimuth forecast approach. We do not know if Loughborough University has specifically peer reviewed the Azimuth forecasts themselves or commented (in another context) on the generic methodology that Azimuth subsequently claim to have applied.

123. Secondly, the industry approach to measuring load factor is irrelevant in the context of forecasts – while we agree that load factor as measured by weight does not always reflect volume restrictions, it does not distort historic cargo trends or invalidate future projections.

[61] (Schiphol, 2019)
[62] (Azimuth Associates, January 2018 c, p. 4)
[63] (Azimuth Associates, January 2018 c, p. 8)

4.3. Reports Supporting DCO Application (July 2018)

Volume I

124. In a general discussion on the political context for aviation in the UK, Azimuth draws on the Airports National Policy Statement issued by the Department for Transport in June 2018. This includes quotations from the document on the economic importance of air freight – which we do not dispute.

125. Azimuth[64] also states – in relation to the National Policy Statement – that:

> *"The Airport NPS indicates the Government's concerns over capacity constraints, pointing to the impact on connectivity. Profit maximisation means that profitable routes are operated at higher frequencies but other routes cease to be served, reducing the possibility of using belly freight to those destinations and increasing the need for dedicated freighers [freighters]".*

126. The conclusion about increasing the need for dedicated freighters appears to be from Azimuth rather than the National Policy Statement (there is no reference to freighters in the National Policy Statement).

- This is one of several examples where references cited by Azimuth are somewhat misleading – either by not clearly distinguishing between the source material and Azimuth's viewpoint, or by taking quotes out of their original context.

127. In fact, the National Policy Statement[65] recognises the leading role that long-haul passenger services play at Heathrow in relation to serving the UK freight market.

> *"The aviation sector can also boost the wider economy by providing more opportunities for trade through air freight. The time-sensitive air freight industry, and those industries that use air freight, benefit from greater quantity and frequency of services, especially long haul. By providing more space for cargo, lowering costs, and by the greater frequency of services, this should in turn provide a boost to trade and GDP benefits.*
>
> *As set out above, expansion at Heathrow Airport delivers the biggest boost in long haul flights, and the greatest benefit therefore to air freight. This is further facilitated by the existing and proposed airport development of freight facilities as part of the Northwest Runway scheme.…"*

128. Azimuth[66] also attempts to draw inappropriate parallels with Manchester in relation to the potential economic benefit of routes to /china.

> *"The potential for increased trade with China has been demonstrated by the impact of direct flights operating from Manchester. The DfT report that the value of goods exported by businesses from Manchester Airport has doubled since the route commenced (DfT, 2018a, p. 38). This success provides an indication of the potential for East Kent should routes between China and Manston Airport be made available."*

129. The growth in value of goods that is referenced was most probably driven by the launching of direct passenger services between Manchester and Beijing. This illustrates the important role bellyhold cargo plays. Linking this development to theoretical direct freighter services from China to Manston has limited relevance.

130. Azimuth[67] makes further assertions in relation to capacity constraints at Heathrow (see also paragraph 113):

[64] (Azimuth Associates, July 2018 a, p. 9)
[65] (UK Department for Transport, June 2018, p. 23)
[66] (Azimuth Associates, July 2018 a, p. 14)
[67] (Azimuth Associates, July 2018 a, p. 15)

> *"With warnings that services on key trade routes from Heathrow are reaching capacity, the UK's exporters could be hampered by lack of access to markets. In particular, routes such as Shanghai, Delhi, Mumbai, Los Angeles, Kokyo Haneda and Dubai are affected".*

131. The warnings have been issued by Heathrow, as part of its argument for a third runway. We point out that:

- New capacity will be added at Heathrow in the bellyhold of passenger aircraft when passenger demand results in additional flights (displacing less lucrative short haul flights prior to a third runway).
- Furthermore, there has been an expansion of long haul at Gatwick recently, with various new services to the Asia Pacific and Middle East regions. These are contributing to high rates of cargo growth at Gatwick.
- Finally, available capacity exists for additional dedicated freighter services at Stansted or East Midlands Airport, if demand exists.

132. Additional reference is made to recent strong growth rates in the UK for the cargo only market[68].

> *"In London, the cargo-only market grew by 5.5% in terms of tonnage between Q1 2016 to Q4 2016 and Q1 2017 to Q4 2017 … AirBridgeCargo has increased its freighters into Heathrow, Etihad has commenced freighter services at Stansted and East Midlands, and Manchester Airport saw 15% growth to China with the addition of Hainan Airline's Beijing service."*

133. Given the natural short-term fluctuations in the cargo market, we consider it of limited value to draw conclusions from growth rates of a single year. The references to new freighter services at Stansted and East Midlands contradicts the Azimuth assertion that the low levels of freighter growth in recent years are mainly due to airport capacity shortages.

134. Azimuth[69] also discusses the Department for Transport projections for freighters, where zero growth is modelled.

> *"Despite 2017 figures and industry forecasts, the DfT are currently showing no growth from 2016 figures in the all cargo market (DfT, 2017, 2.5.6). This issue was raised at a meeting with the DfT on 25 January 2018. The DfT's response, received on the 1 June 2018, points out that they do not model freight in detail and the zero percent growth is an assumption. The Department is currently revaluating air freight policy as part of the developing Aviation Strategy. It is unclear whether the zero percentage growth assumption is due to the absence of detailed information or is simply pragmatic, since the lack of capacity for dedicated freighters would preclude any substantial increase in movements, particularly in the South East."*

135. It is not normal practice to revise long term projections on the basis of a single year. Furthermore, there is no evidence to suggest that the zero-growth projection for all cargo services is based on capacity constraints.

- As discussed earlier in this report, there is no overall shortage of freighter capacity in the UK, either now or likely in the foreseeable future. Airports such as East Midlands are well positioned to serve freighter demand through most of mainland UK, including South-East England.

[68] (Azimuth Associates, July 2018 a, p. 17)
[69] (Azimuth Associates, July 2018 a, p. 18)

- A more likely explanation for the zero-growth assumption is that the DfT anticipates a continuation of trends towards bellyhold (UK CAA statistics indicate that the number of freighter flights have almost halved in the period 1998-2018).

136. Further assertions are made in relation to Stansted Airport[70], and the risk that freighter flights could be displaced (see also paragraph 115).

> *"… Viscount Aviation's analysis of this situation is that cargo flight timings are likely to be impacted severely since the airport will prioritise servicing Ryanair. This is because the proportion of the airport's income derived from Ryanair is considerable. This focus on service quality of the LCCs, coupled with the high usage of the single runway is likely to result in all-cargo flights waiting to land or take off, causing a knock-on effect to their schedules and hampering their operations. "*

137. This argument is speculative. The times of peak runway requirement for low cost carriers and freighters are unlikely to overlap. In any case, the Viscount Aviation report has not been published. Therefore, it is not possible to fully comment on the arguments put forward.

138. Azimuth[71] draws on a news article to put forward the proposition that there is potential for the transformation of low usage cargo focused airports, referencing Hahn Airport in particular.

> *"This move to build up dedicated freighter capacity, 'is opening a new debate about the viability of cargo airports'. Amazon's interest in Hahn Airport, a former military airbase, 120 kilometres from Frankfurt, which has reported years of losses, low usage, and has a 23.00 to 05.00 hours curfew, is indicative of the potential for the redevelopment of cargo focused airports. "*

139. However, the article[72] provided as a source for this proposition is generally sceptical about the potential for the redevelopment of cargo focussed airports such as Hahn:

> *"Even a flight curfew between 11 pm and 5 am at Frankfurt [the main airport] could not cement Hahn's position as a cargo gateway. "*
>
> *"Mike Webber, a former airport cargo executive turned industry consultant… "If you had to do a cost analysis to build a cargo airport to accommodate Amazon, you wouldn't do it," he said. He argued that the growth of e-commerce may open opportunities for some airports with existing infrastructure, but would not usher in a renaissance for cargo airports, because the industry was unlikely to see a proliferation of e-tailers with dedicated airfreight operations. "How many Amazons are there going to be?" he asked."*
>
> *"Whether an operation would translate into profits for airports which landed a chunk of this business is another question. Few cargo airports have managed to produce black figures, Mr Webber said…… cargo is an unlikely avenue to profitability, Mr Webber added."*

140. Furthermore, Amazon's apparent interest in Hahn has been refuted[73].

> *"Earlier this year, the newspaper Süddeutschen Zeitung had reported that Amazon had held talks with Frankfurt-Hahn Airport, which has been losing money and up for sale at least since February. Amazon, the paper reported, was likely one of three unnamed bidders that had shown interest in buying HHN.*

[70] (Azimuth Associates, July 2018 a, p. 25)
[71] (Azimuth Associates, July 2018 a, p. 31)
[72] (The Load Star, 2016)
[73] (Air Cargo World, 2016)

Today, however, officials for HHN told Lloyd's Loading List that neither the airport nor its municipal owner had been in contact with Amazon regarding any possible sale."

141. Section 6.3 of the Azimuth[74] report discusses – in some detail - dedicated freighter use compared to belly freight. It expands previous arguments about the importance of dedicated freighters within the air cargo sector. The role played by dedicated freighters, despite diminishing in recent years, is not disputed. However – as with previous Azimuth reports - no evidence is provided to support the assertion that the low level of freighter activity in the UK is due to lack of airport capacity. Once again, Azimuth does not acknowledge:

- The availability of substantial airport capacity in central UK locations (e.g. East Midlands Airport).
- The availability of substantial bellyhold capacity due to the extensive long-haul network at Heathrow.
- The obvious geographic disadvantages of the UK as a location for distribution of long-haul cargo across Europe. In particular, for the important freight market of Europe-Asia, the UK's location requires dedicated freighters to overfly most of Europe to reach the UK (inefficient from a time and cost perspective compared to flying to/from mainland European points and then distributing cargo across Europe through road feeder services).

142. Section 6.4[75] of the Azimuth report highlights the role of road feeder services. It correctly identifies that cost and convenience have been key factors in the relative growth of trucking (compared to air) for short haul cargo.

143. We agree that for long haul cargo, an entire journey by truck is not practical. However, road feeder services are an integral part of the air cargo business model. For all but the most time sensitive cargo, a combination of flying and road feeder services provides fast journey times.

- This approach has massive cost benefits from the consolidation of disparate cargo flows.
- For example, accessing cheap bellyhold capacity at Heathrow and major mainland European hubs can more than offset the costs of cross channel trucking.

144. As discussed earlier, the UK is not suitably located to act as a central distribution point for Europe, which has been a major factor in the relatively limited freighter activity in the UK.

145. The most recent Boeing cargo forecast[76] comments on the role of trucking in the context of Europe.

"Air cargo has never been solely an airport-to-airport service. Rather, air cargo is a single component of a transportation infrastructure that links the shipper and the consignee. Trucking offers door-to-door and factory-to-distribution center service, which air transport alone cannot provide.

Scheduled airlines that serve the intra-Europe market have used truck flights, trucking services registered with their own flight number, to extend their networks and add scheduling flexibility.

Long-haul truck-flight operations in Europe supplement overall air logistics systems. Their dramatic rise in the past decade has clearly contributed to a decline in growth of scheduled freight carried by air. According to the truck-flight schedules published by airlines, since 2008, airport pairs of truck flights grew 2.5 percent on average per year.

Weekly frequencies of truck flights grew 15.5 percent on average per year between 2008 and 2013, but the growth has paused since 2013. After a long period of stagnation from

[74] (Azimuth Associates, July 2018 a, p. 33)
[75] (Azimuth Associates, July 2018 a, p. 36)
[76] (Boeing, 2018, p. 40)

2013 to 2017, weekly frequencies of truck flights grew 18.9 percent in 2018. Most of the growth occurred in the major hub airports of the carriers, strengthening their air cargo networks.

Truck-flight operations provide regularly scheduled freight service for high-value or work-in-progress goods between manufacturing facilities, especially to and from central and eastern Europe. Scheduled truck operations are often used where demand is too low or infrequent to warrant dedicated freighter airplane service."

146. Similar trends have been identified in North America[77]:

"Truck flights allow combination carriers to offer service comparable to that of pure cargo carriers. Rising fuel costs magnify the inherent cost advantages of ground transport over air transport, and although fuel costs decreased in the 2015–2017 timeframe, ground transport retained its cost advantage over air transport."

[77] (Boeing, 2018, p. 24)

4.4. Summary

147. There have been only some relatively minor changes to content in the updated Azimuth reports from the versions we reviewed as part of our previous report. The arguments put forward by Azimuth are fundamentally unchanged, the unrealistic Manston traffic projections have not been modified and the weaknesses we had previously identified have not been addressed

148. The new Azimuth reports contain some new material. This new material can be broadly characterised as:

- Extrapolation from the (temporary) strong global cargo demand in late 2017/early 2018 to support the long-term case for Manston.
- New references in support of its arguments for the potential of Manston. However, the conclusions drawn from these references are typically inappropriate. A deeper analysis of the new material highlights either limited applicability for Manston or that the new material is not supportive of the case made by Azimuth.
- Additional background material which is not directly relevant to the case for Manston.

149. Therefore, our conclusions from our original report remain valid. These are summarised below.

- Manston has historically played a role as a niche air freight airport. We do not see potential for a more significant role in the future. It is in a poor location to serve the wider South East or UK market. Other structural disadvantages include lack of critical mass, lack of a passenger hub, and night flight restrictions.
- We have identified significant weaknesses in the Azimuth analysis and forecasts. The following factors have not been acknowledged and/or adequately reflected – there is no overall shortage of freight capacity in the UK or South East specifically, cargo activity in the UK has become very consolidated on the 3 cargo hubs (Heathrow, Stansted and East Midlands), there has been a strong trend towards bellyhold freight (with the role of dedicated freighters diminishing) and trucking is a highly integrated component of the air freight business model, and not merely a substitute for air freighter flights when airport capacity is constrained.
- We consider the Azimuth freight forecasts to be extremely optimistic, with negligible supporting evidence. In particular, historic performance is ignored, there is a heavy reliance on qualitative techniques (with no substantive attempt to quantify the size of the markets Manston will be competing in, or how it would gain market share) and many of the references from published studies are too generic to be meaningful or are taken out of context.

150. Overall, the Azimuth forecasts and report do not provide any meaningful evidence that a reopened Manston Airport would be remotely viable.

- The arguments put forward by Azimuth run contrary to well established industry trends.
- The projections put forward have negligible quantitative justification, relying on a range of potential operators which either are unlikely to be interested in Manston or are no longer active in the freighter segment[78].
- There is no convincing reasoning why a reopened Manston would be more successful than other airports with similar characteristics, or that improvements on historic performance could be achieved.

[78] (York Aviation, 2019, p. 23)

5. UK Regional Airport Financial Performance and Debt Funding Characteristics

5.1. Introduction

151. This section provides an overview of UK regional airport financial performance, with particular focus on lower throughput regional airports (similar to the Manston Airport proposal).

152. RSP has provided very limited financial forecasts or financing details relating to the application for the redevelopment and reopening of Manston Airport.

153. The lack of detailed and substantiated financial forecasts, and nothing of substance in relation to how the proposed investment could be commercially financed raises significant questions around the financial viability and fundability of the proposal.

154. The financial viability challenges for lower throughput UK airports have been highlighted in recent years with three airports taken over by the public sector, where experienced private sector operators could not operate these airports on a viable commercial basis.

155. This section highlights the key components and characteristics of the airport business that the providers of debt (or equity) are likely to focus on when evaluating credit worthiness of the asset in relation to a potential debt and/or equity raising process.

156. This analysis is referenced in the following sections when considering the potential performance of a reopened Manston Airport, and its likely ability to raise debt and/or equity on the commercial market.

5.2. Altitude Aviation Experience of the Airport Debt and Equity Market

157. The Altitude team has advised on many airport debt transactions relating to UK and international airports over a long period. Examples of our recent airport debt transaction experience on processes that have reached financial close is set out below.

Airport	Debt Amount	Closing Date
Leeds Bradford Airport	Ca. £80m	2019
London Luton Airport	Ca. £390m	2017
Budapest Airport	Ca. €1.3bn	2017
Bristol Airport	Ca. £279m	2015
Glasgow, Aberdeen and Southampton airports	Ca. £500m	2014
Edinburgh Airport	Ca. £500m	2014

158. Our experience from these successful debt processes is that lenders will only provide funds where they have confidence that the request is supported by a detailed and sustainable business plan that can withstand a high level of stress testing. We have not seen any detailed information from RSP that would support a successful request for debt funding of the proposed business.

159. The Altitude team has also advised on many airport equity transactions relating to UK and international airports over a long period. Examples of recent airport equity transaction experience that have reached financial close is set out below.

Airport	Description
2018	
London Gatwick (UK)	Due diligence support for Vinci Airport's acquisition of a 50.01% equity stake in Gatwick Airport (reported price £2.9 billion). The project is due to reach financial close in June 2019.
Airports Worldwide (UK, Sweden, USA, Costa Rica)	Due diligence support for Vinci Airport's acquisition of Airports Worldwide (sale agreed, price undisclosed). The transaction comprised equity in five airports (Belfast International, Stockholm Skavsta, Orlando Sanford, San Jose (Costa Rica) and Liberia (Costa Rica), and four US airport management contracts.
Luton Airport (UK)	Vendor due diligence support for sale of Ardian's 49% stake in London Luton Airport Operations Limited to AMP Capital (sale agreed, price undisclosed).
Belgrade Airport (Serbia)	Due diligence support for Vinci Airport's successful bid for a 25 year concession to develop and operate Belgrade Airport (Vinci announced as preferred bidder in January 2018 with a bid of €501m initial payment, investment of €732m over the concession period and annual payments of €4.3m to €16m). The project reached financial close in December 2018.
2017	
Copenhagen Airport (Denmark)	Vendor due diligence support for minority equity disposal by Macquarie European Infrastructure Fund 3 of its 46.6% shareholding in Kastrup Airport Parents ApS, a holding company which indirectly holds a 57.7% ownership in Copenhagen Airports A/S. The indirect 26.9% shareholding in Copenhagen Airport had an implied enterprise value of €1.6bn (ca. 20x EBITDA multiple).
Birmingham / Bristol airports (UK)	Vendor due diligence support for minority equity disposal by Ontario Teachers' Pension Plan (undisclosed but reported to reflect ca. 22x EBITDA multiple).
Leeds Bradford Airport (UK)	Due diligence support for 100% acquisition for ca. £220m by AMP Capital (ca. 29x EBITDA multiple).
Previous Years	
Tirana Airport (Albania)	Due diligence for China Everbright and Friedmann Pacific joint venture, Keen Dynamics Limited acquisition from AviAlliance (undisclosed, 2016).
London City Airport (UK)	Vendor due diligence for equity disposal by GIP and Oaktree Capital (ca. £2.0bn, 2016).
Toronto City Centre Terminal (Canada)	Commercial support for the disposal of City Centre Terminal Corp. Porter completed the sale of its passenger terminal concession to Nieuport Aviation Infrastructure Partners in January 2015.
Glasgow, Aberdeen and Southampton airports (UK)	Due diligence for Ferrovial Aeropuertos and Macquarie European Infrastructure Fund acquisition of 100% equity (£1.05bn, 2014).

160. As with successful debt funding, our experience from UK and global airport equity transactions that have reached financial close is that equity providers require very detailed business plan information before they will consider an investment. As with debt providers, equity providers will expect detailed business plan stress testing to ensure equity returns are reasonable across a range of potential business outcomes. RSP has not presented any detailed business plan information for the proposed business which would allow the assumptions to be tested in the context of the UK regional airport sector financial performance.

5.3. Airport Sector Key Features

161. The global airport sector has a broadly consistent set of key features that flow to operational and financial performance.

162. The level and type of demand is the key feature that drives all aspects of operational and financial performance. Credible short, medium, and long-term traffic forecasts are essential to inform business and capital development plans.

- Debt providers expect to be presented with a detailed business plan that includes traffic, business plan, and capital investment forecasts for at least 10 years. The required forecast period can be significantly longer and is normally aligned with the term of debt requested with some allowance for potential extension of the debt repayment period.
- Equity providers would typically expect business plan forecasts for up to 30 years to reflect the longer-term return period.
- In their application documents, RSP advised that they need to raise all the funds required for capital investment (i.e. they do not currently appear to have shareholder funding available for this requirement). Our experience from equity investors is that they would require as much information as debt providers to critically examine the business case to ensure they have a clear idea of how they could make an acceptable risk-adjusted return across a range of potential outcomes.

163. Based on our experience of many airport debt and equity processes, the table below highlights the key airport characteristics, and supporting analysis and detailed outputs that debt and/or equity providers would expect to be provided for each key area of the particular airport business.

164. RSP has not presented any detailed business plan information that would support either debt and/or equity raising processes.

165. A further material issue for the RSP proposal is the much higher threshold of information required to satisfy debt or equity providers for a start-up business with no track record of performance or profitability. This is particularly the case where the project sponsor has no demonstrable track record of developing or operating a commercially successful airport business. This lack of experience and credibility is likely to be a major issue for potential debt and/or equity providers.

Key Characteristic	Main Features	Comment	Material Typically Provided to Debt Provider
Demand	Catchment and consumer choice (airlines, destinations, cargo operators, etc.)	• Long run demand linked to GDP, disposable income, affordability, airline economics, etc. • Structural features e.g. hub, inbound tourism, cargo demand, etc.	• Detailed traffic forecast to include passenger segmentation (domestic, short haul, long haul, low cost carrier, etc.), cargo demand (bellyhold, freighter, expeditor), and other (business jet, general aviation, etc.). • Traffic report which covers all aspects of traffic demand including air transport movements (ATMs), aircraft stand demand, runway and terminal busy hour rates, etc.
Competition	Competing airports' features, capacity, etc.	• Detailed assessment of airport competition, and why users choose a particular airport. • Modal substitution options.	• Debt providers would expect the traffic report to include detail of the airport's competition, including discussion on competing airport characteristics.
Revenue	Diverse revenue streams	• Detailed outline of all airline, passenger, and non-aviation related revenues. • Clear rationale for forecast assumptions (airline contracts, concession contracts, property leases, etc.). • Detailed performance benchmarking analysis.	• Business plan to include a detailed build up of all revenue categories over the forecast horizon. • Business plan report should include detailed analysis of historic performance vs. forecast performance, and outcomes vs. sample benchmark airports.
Operating Costs	Operating leverage	• Lower unit costs as volumes increase driven by high fixed costs. • Detailed analysis of fixed and variable costs including staff costs by functional department, and non-staff costs by main outsourced categories.	• Operating cost forecast to include analysis vs. historic performance and regional airport recent trends. • Operating cost forecast to be driven by the appropriate drivers and assumptions clearly explained to debt providers.
Profitability	Profitability driven by airport size and passenger profile	• Operating expenditure consumes a high share of revenue at lower throughput airports. • Operational leverage is difficult to achieve at lower throughput airports.	• Detailed financial model to include debt provisions and below EBITDA operating costs (depreciation, dividends, etc.). • Downside demand / cost scenarios to demonstrate resilience of the business case – what happens if forecast are not achieved? • Detailed financial model to demonstrate debt covenants can be met under a range of scenarios throughout the forecast period.
Investment	Infrastructure leverage / investment flexibility	• High investment cost for lower throughput airports. • More efficient use of infrastructure as throughput increases. • Flexibility on incremental capacity investment.	• Detailed process capacity assessment. • Investment plan to achieve approvals to commence operations. • Investment in capacity and asset renewals over the forecast period.

Figure 5 - Airport Market Key Characteristics (source: Altitude)

5.4. Airport Business Model Components

166. An airport's business model typically comprises the demand, revenue, cost and investment categories illustrated below. The structure and components tend to be broadly consistent across all airports with the main performance variables being driven by volume and traffic segmentation.

Traffic	Passengers	Cargo	Business / General Aviation / Other
Airline Customers	Full Service	Bellyhold	Corporate
	Low Cost	Cargo Operators	Medical
	Charter	Integrators	Govt., etc.
Customer Segmentation	Business	Airborne	
	Leisure	Trucked	
	Charter		
Revenue	Aeronautical		
	Non-aeronautical		
Operating Cost	Staff		
	Non-staff		
EBITDA	Per pax / Margin %		
Capex	Aero Growth	Aero Repex	
	Non-aero Growth	Non-aero Repex	

Figure 6 – Summary Airport Business Model (source: Altitude)

167. Airport financial performance improvement is driven by each of the categories included in Figure 6, to varying degrees.

168. The primary driver for any airport is the traffic forecast (passengers, freight, etc.), as this is the main source of revenue, operating costs, and capital investment.

169. The airport sector benefits from diverse revenue streams which can be allocated into the two high-level categories of:

- Aeronautical revenue (revenue relating to the movement of passenger and / or freight, including aircraft landing and parking fees, passenger terminal use fees, security charges, etc.).
- Non-aeronautical revenue (retail, car parking, advertising, property rentals, etc.).

170. Aeronautical revenue would be expected to increase as traffic throughput increases. UK regional airports such as Manston Airport would not be subject to formal economic regulation and are free to set aeronautical charges without reference to an aeronautical regulator as long as the charges are (i) transparent, and (ii) non-discriminatory between airline users.

- Targeted incentives are used to support traffic growth with the airport providing financial incentives for carriers to become established and to add capacity.

- However, low cost carriers tend to require a high level of financial incentives through low (or no) aeronautical charges and / or marketing financial support for carriers to launch services and add capacity.
- We would also expect cargo operators to also be heavily incentivised to commence and develop services at a reopened Manston Airport.
- The requirement to incentivise passenger and cargo airlines would be expected to lead to low aeronautical revenue, particularly in the early years. This is likely to be a material issue for external debt and / or equity providers who would expect to see clear evidence of the airport's ability to meet financing costs.

171. We note that Azimuth Volume 4 paragraph 2.2.10 claims its forecast take into account the costs of integrators and freight forwarders switching airports:

> *"Additionally, the costs of switching airports have been taken into account when considering the likelihood of integrators and freight forwarders moving to Manston Airport. These include (CAA, 2013, p. 26):*
>
> *The cost of physical relocation.*
>
> *Cancellation of long-term contracts.*
>
> *Loss of economies of scale, although if an entire operation is switched, economies of scale would be gained at the new airport.*
>
> *Market effects such as marketing new routes and a potential loss of custom in the early years following the switch.*
>
> *Network effects lost by switching to a smaller airport.*
>
> *Capacity constraints at other airports, particularly in slot allocations.*
>
> *Sunk costs such as an airline's investment in the airport from which they are switching."*

172. We would have expected RSP to provide detailed financial forecast information to support the Azimuth assertions which could then be tested in the context of actual performance of the UK smaller throughput airport sector.

173. However, RSP has not presented any detailed financial or business plan information that would allow any debt and/or equity providers to make an informed funding decision

174. Non-aeronautical revenue is largely driven by traffic throughput.

- Passenger throughput drives terminal retail, food and beverage, and currency exchange revenues. It also drives car parking and car rental revenues.
- A number of non-aeronautical revenue categories are not directly driven by passenger throughput including property rentals, advertising, etc).
- Property revenue at a reopened Manston Airport is likely to be driven by cargo throughput generating demand for cargo processing facilities rather than passenger throughput. Passenger airlines, particularly low-cost carriers seek to minimise direct costs at an airport and avoid renting property space wherever possible.
- Other property demand can come from non-aviation related businesses which does not need to be located at an airport.

175. Operating costs tend to be driven by underlying fixed costs and subsequent passenger and terminal space growth rather than cargo throughput.

- Airports have a high level of fixed cost, irrespective of the level of throughput, to meet regulatory requirements e.g. perimeter and passenger related security, airfield operations, air traffic control, fire and rescue, along with core head office management and commercial functions.
- The impact of these high fixed costs has a disproportionate impact on the profitability of lower throughput airports with lower revenue generating capability.
- Once revenue has exceeded fixed operating costs, passenger growth typically increases at a faster rate than incremental operating costs resulting in declining unit cost (operating cost per passenger or tonne of freight). This is a major challenge for smaller throughput airports to increase revenue to materially exceed the structural fixed costs of the airport sector to then be in a position of sustained profitability.

176. Analysis in the next section will illustrate the challenging financial performance of lower throughput UK regional airports (passengers and / or cargo throughput below 3 million work load units[79] (WLUs) per annum) which tends to be driven by the high fixed costs.

- Note that the RSP's forecasts equate to demand of 3.1m WLUs in Year 10.

177. EBITDA as a measure of cash generated from the operating business to fund debt and capital investment, and EBITDA margin are driven by the revenue and operating cost performance of the airport. Small UK regional airports are typically operating with negative EBITDA and / or low EBITDA and EBITDA margins. This means they cannot generate sufficient cash to service debt service debt or capital investment.

178. Capital expenditure is driven by (i) meeting the regulatory and licencing requirements to operate, (ii) traffic throughput, and (iii) asset condition which impacts replacement capital investment levels. Whilst airports can defer some element of asset replacement, it is a major component of the operating licence to demonstrate the airport can fund the required capital investment to meet the statutory requirements.

5.5. UK Airport Benchmarking Group

179. This section focuses on the financial performance of a set of lower throughput UK regional airports (annual throughput below 3 million WLUs) that provide a good comparison with the Year 10 forecast for a reopened Manston Airport. The selected airports are set out below.

Airport	Airport Code	Financial Year	Pax	WLU
Belfast City	BHD	31-Dec-17	2.6m	2.6m
Southampton	SOU	31-Dec-17	2.1m	2.1m
Cardiff	CWL	31-Mar-18	1.5m	1.5m
Doncaster Sheffield	DSA*	31-Mar-17	1.2m	1.3m
Southend	SEN	28-Feb-18	1.1m	1.1m
Exeter	EXE	31-Mar-18	0.9m	0.9m
Prestwick	PIK	31-Mar-18	0.7m	0.8m
Bournemouth	BOH*	31-Mar-17	0.7m	0.7m
Norwich	NWI	31-Mar-18	0.5m	0.5m
Newquay	NQY	31-Mar-18	0.5m	0.5m
Humberside	HUY	31-Mar-18	0.2m	0.2m
Durham Tees Valley	MME*	31-Mar-17	0.1m	0.1m

Table 2 – UK Benchmark Airports 2017 Data (source: company reports)

180. The airports included in the benchmark analysis have an annual throughput of up to 3 million passengers and 3 million WLUs. Note that the most recently available financial data has been used (note that airports with an * refers to financial data for the year ending March 2017).

[79] A work load unit (WLU) is defined as one passenger or 100 kg of cargo.

181. The sample set provides a good range of smaller throughput airport businesses to reflect the proposed rate of development for a reopened Manston over the initial ten-year period.

182. The detailed analysis highlights just how challenging the market is for these airports and the low of negative levels of profitability consistently achieved.

183. We also highlight below that three of the benchmark airports have had to be taken over by the public sector in recent years when experienced private sector airport operators could not develop the airports to achieve sustainable financial performance.

5.6. Airports Rescued by the Public Sector

184. The financial viability challenges for lower throughput UK airports have been highlighted in recent years with three airports taken over by the public sector, where experienced private sector operators could not operate these airports on a viable commercial basis:

- **Glasgow Prestwick Airport**: purchased by Scottish Government for a reported £1 in 2013. Since taking ownership, the Scottish Government has provided loans of ca. £38m. The business reported a post-tax loss of £7.6m in the year to 31st March 2018. We also note that Infratil was a previous owner of Manston Airport and, despite having airport experience from its 66% ownership of Wellington Airport in New Zealand (with 6.3m passengers in 2018), was unable to develop either Prestwick or Manston into sustainable businesses.
- **Cardiff Airport**: purchased by the Welsh Government for a reported £52m in 2013. Since taking ownership, the Welsh Government has provided loans of ca. £14m. The business reported a post-tax loss of £5.6m in the year to 31st March 2018. The previous owner, Abertis, was an experienced operator of Belfast International and Luton airports in the UK and a number of international airports. Despite this, passenger numbers declined from ca. 2m in 2007 to just over 1.0m in 2012.
- **Durham Tees Valley Airport**: purchase announced in January 2019 by Tees Valley Combined Authority for a reported £40m. The business reported a post-tax loss of £2.4m in the year to 31st March 2017. Current owner, Peel Group, is an experienced operator of Liverpool and Doncaster Sheffield airports.

5.7. P&L Performance

185. Lower throughput UK regional airports can achieve high revenue yield (total revenue / Work Load Unit) as non-passenger related revenue can be a high share when the traffic throughput is low.

- This is evident in the chart below which illustrates that the two smallest airports in the study (Durham Tees Valley and Humberside) achieve the highest total revenue yield / WLU. However, both airports have KLM service to Amsterdam as virtually the only commercial airline customer paying historically high charges – a situation that is highly unlikely to be replicated at Manston.
- However, it would be expected that this yield reduces as the airport grows and the relatively fixed revenues (e.g. property rentals) are diluted as passenger and cargo throughput increases. The larger airports in our study are mostly on the right side of the chart with lower revenue yields.
- A start-up at Manston would be expected to achieve low yields due to the need to highly incentivise both passenger and cargo operators to set up and commence operations at the airport.

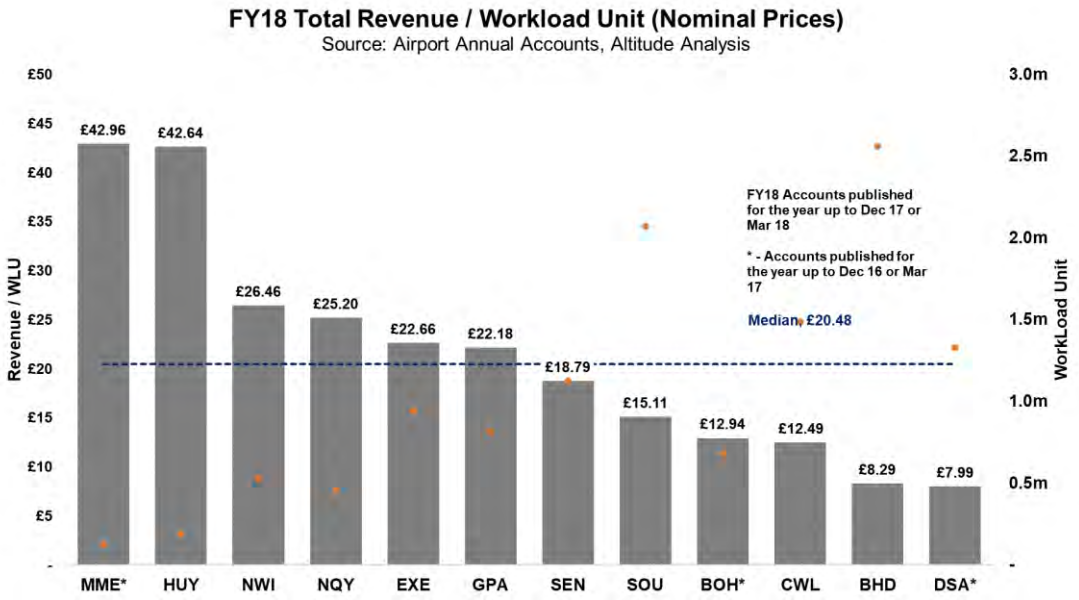


Figure 7 - Total Revenue Yield / WLU

186. As previously outlined, airports have high fixed costs. This results in higher unit cost (total operating expenditure / WLU) at smaller airports. The operational efficiency of the airport improves as the airport grows and fixed costs are spread over a higher level of throughput. This operational leverage is an important feature of the airport sector's financial performance.

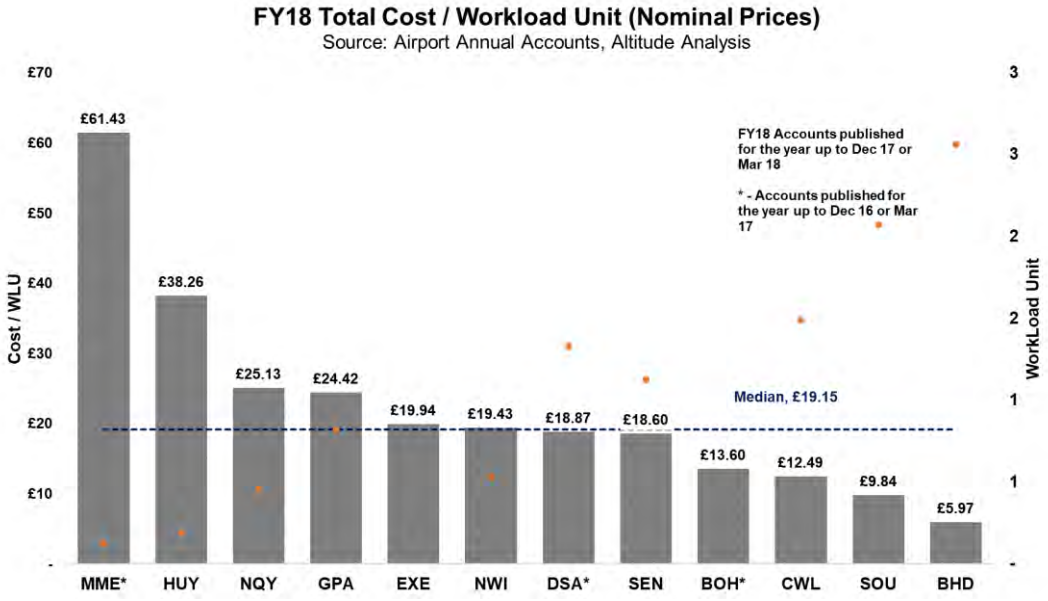


Figure 8 - Total Unit Cost

187. We would expect a start-up Manston to have high unit costs for a number of years. However, we have not seen detailed financial information from RSP to test the reasonableness of their assumptions.

188. As outlined, EBITDA is a measure of the airport's ability to generate cash to finance the business, including servicing debt and funding capital investment.

189. The EBITDA / WLU chart clearly illustrates the requirement for airports to achieve critical mass of throughput before being able to generate positive EBITDA.

190. This can be challenging with seven of the twelve airports in the study having negligible or negative EBITDA performance which means no cash to service debt or fund capital investment.

191. This highlights the difficulties for any potential future operator of Manston Airport to generate sufficient throughput and revenue to offset the high fixed costs of a UK regional airport.

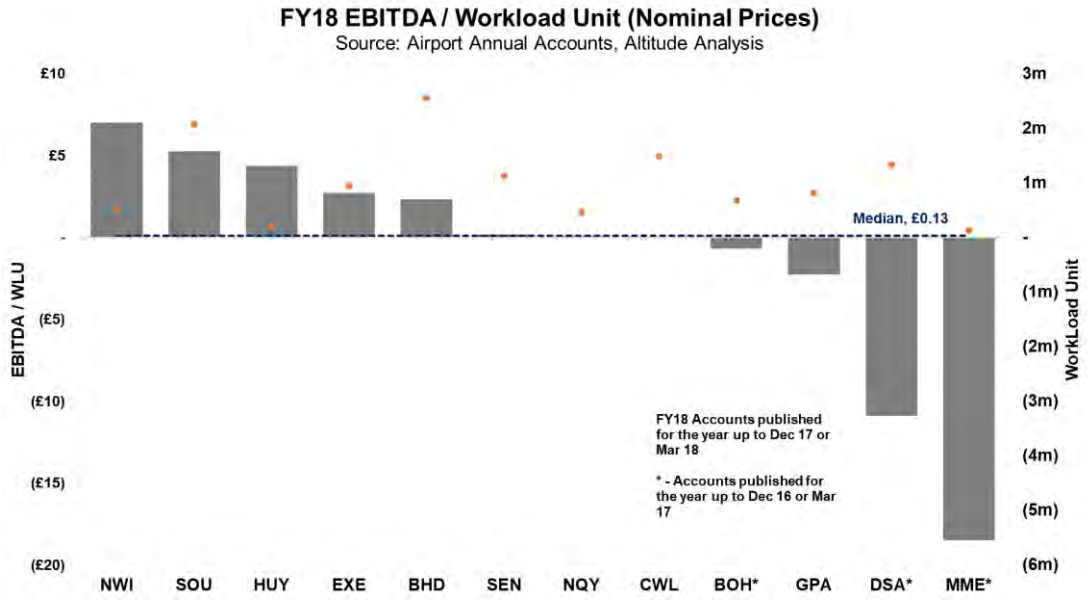


Figure 9 - EBITDA / Pax

192. Larger regional airports such as Southampton and Belfast City have a positive EBITDA / WLU, whilst smaller airports such as Durham Tees Valley, Doncaster Sheffield, Prestwick and Bournemouth generate negative EBITDA / WLU.

- Southampton and Belfast City airports both serve city catchments and do not have material levels of low cost carrier traffic. They consequently enjoy higher profitability than the other airports. Manston would not be able to replicate a similar business model as the local market characteristics do not exist to support to support such a model.
- By contrast, airports with higher levels of throughput such as Cardiff and Doncaster Sheffield generate negligible or negative EBITDA which we assume is a consequence of having to highly incentivise passenger and/or cargo airlines to use the airport. We would expect this to be the case at a reopened Manston which implies no or limited cash to service debt and capital investment.

193. Based on our experience and the financial performance at UK regional airports, we would expect high levels of incentivisation of future commercial operations to be a feature of the financial performance of a reopened Manston Airport, particularly in the early years.

- This will have a material negative impact of the ability of the business to raise external debt or equity on a standalone basis without having a parent company guarantee (from an entity of sufficient financial standing) or other assurances in place.
- This would clearly have a material impact on the viability of RSP's proposals. However, we are unable to assess this due to lack of detailed business plan information to support the application.

194. Analysis of net profit after tax illustrates the ability of the business to reward equity shareholders, generate cash reserves, and to finance capital investment.

- It also gives debt providers an indication of the resilience of the business to withstand any downturns in demand e.g. economic shocks, airline withdrawal / scale reduction / failure.
- For the RSP proposal, the requirement to generate positive cashflow is amplified by the requirement to fund and repay the significant initial investment to reopen the airport, as well as future incremental capital investments.

- The evidence from our analysis of the benchmark sample airports is that the ability to generate positive post-tax cash flows is very challenging for existing businesses and is likely to be even more challenging for the start-up business proposed by RSP.

195. The figure illustrates that UK regional airports with low levels of throughput struggle to generate positive net profit after tax.

- Only 3 airports produced a positive result, indicating the difficulty to maintain a viable business at low levels of throughput.
- The chart also illustrates the challenges faced by smaller airports to withstand declines in demand, which will be a major concern for both debt and equity providers.

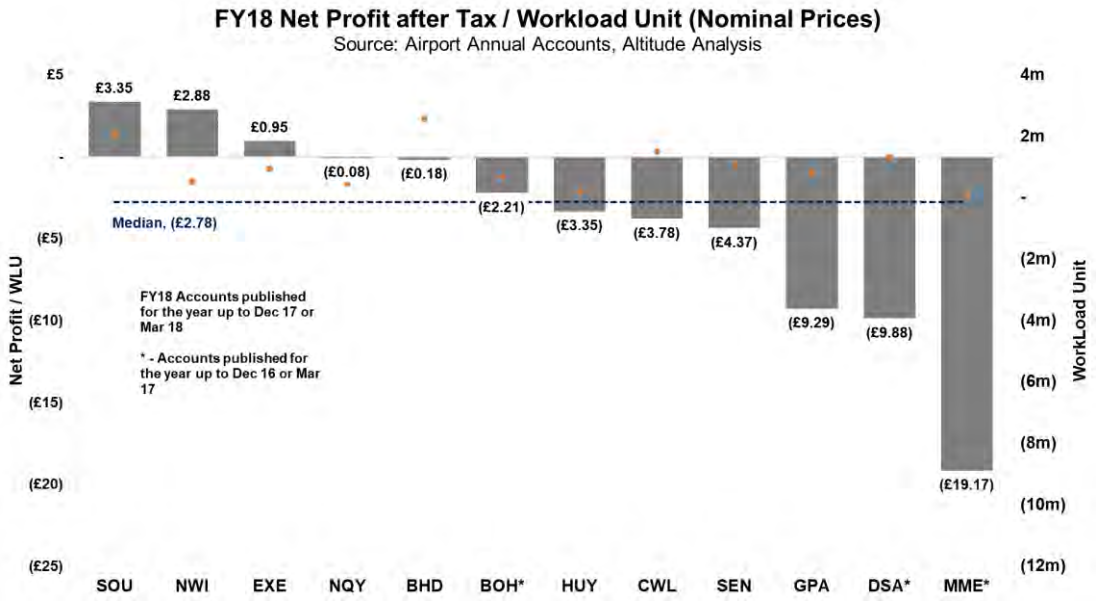


Figure 10 - Net Profit / Pax

196. To summarise the selected UK regional airport performance, we have combined revenue, EBITDA and net profit after tax into a single chart to illustrate the challenges faced by lower throughput airports.

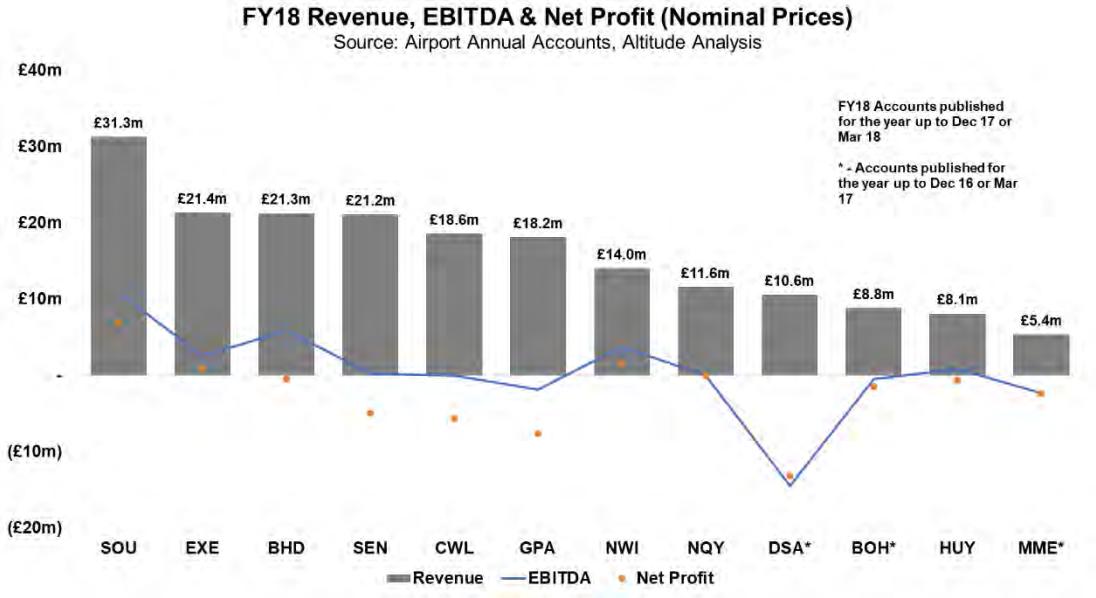


Figure 11 - Revenue, EBITDA & Net Profit

197. A summary of the benchmarking airports' financial performance is outlined in the table below.

Airport	Airport Code	Pax	WLU	Revenue	Opex	EBITDA	Net Profit after Tax
Belfast City	**BHD**	2.6m	2.6m	£21.3m	£15.3m	£6.0m	(£0.5m)
Southampton	**SOU**	2.1m	2.1m	£31.3m	£20.4m	£10.9m	£6.9m
Cardiff	**CWL**	1.5m	1.5m	£18.6m	£18.6m	£0.0m	(£5.6m)
Doncaster Sheffield	**DSA***	1.2m	1.3m	£10.6m	£25.1m	(£14.5m)	(£13.1m)
Southend	**SEN**	1.1m	1.1m	£21.2m	£20.9m	£0.2m	(£4.9m)
Exeter	**EXE**	0.9m	0.9m	£21.4m	£18.8m	£2.6m	£0.9m
Prestwick	**PIK**	0.7m	0.8m	£15.9m	£21.0m	(£5.2m)	(£6.2m)
Bournemouth	**BOH***	0.7m	0.7m	£8.8m	£9.3m	(£0.5m)	(£1.6m)
Norwich	**NWI**	0.5m	0.5m	£14.0m	£10.3m	£3.7m	£1.5m
Newquay	**NQY**	0.5m	0.5m	£11.6m	£11.6m	(£0.0m)	(£0.0m)
Humberside	**HUY**	0.2m	0.2m	£8.1m	£7.8m	£0.3m	(£0.6m)
Durham Tees Valley	**MME***	0.1m	0.1m	£5.4m	£7.7m	(£2.3m)	(£2.4m)

*Table 2 – UK Benchmark Airport 2017 Financial Data (source: company reports, * refers to financial data for the year ending March 2017)*

198. As expected, the larger airports produce more revenue which in turn leads to positive EBITDA. However, only three airports generate positive net profit after tax.

199. This is driven by the highly fixed operating costs at smaller airports outweighing their ability to generate revenue, which leads to negative EBITDA and negative net profit after tax.

200. Based on the detailed analysis of the lower throughput UK airport sector presented above and with the absence of detailed financial forecasts from RSP, we are of the opinion that the business would face severe challenges to become commercially viable even if RSP delivered on its highly optimistic forecasts. This is further highlighted by the historic loss-making performance of the airport when it previously operated by experienced owners.

5.8. Debt Level Analysis

201. This section provides analysis of the level of debt financing of the benchmark airports. This provides some insights on the level of debt at the airports and the ability of the airports to service the debt.

202. The table below provides a summary of the latest available operational characteristics and debt levels.

Airport	Airport Code	Financial Year	Pax	WLU	Revenue	Opex	EBITDA	Debt	Net Profit after Tax	Debt / EBITDA	Debt / Revenue
Belfast City	**BHD**	**31-Dec-17**	2.6m	2.6m	£21.3m	£15.3m	£6.0m	£26.6m	(£0.5m)	4.5x	1.3x
Southampton	**SOU**	**31-Dec-17**	2.1m	2.1m	£31.3m	£20.4m	£10.9m	£25.0m	£6.9m	2.3x	0.8x
Cardiff	**CWL**	**31-Mar-18**	1.5m	1.5m	£18.6m	£18.6m	£0.0m	£37.2m	(£5.6m)	6,207.0x	2.0x
Doncaster Sheffield	**DSA***	**31-Mar-17**	1.2m	1.3m	£10.6m	£25.1m	(£14.5m)	£39.9m	(£13.1m)	(2.8x)	3.8x
Southend	**SEN**	**28-Feb-18**	1.1m	1.1m	£21.2m	£20.9m	£0.2m	£159.8m	(£4.9m)	742.3x	7.6x
Exeter	**EXE**	**31-Mar-18**	0.9m	0.9m	£21.4m	£18.8m	£2.6m	£8.9m	£0.9m	3.5x	0.4x
Prestwick	**PIK**	**31-Mar-18**	0.7m	0.8m	£18.2m	£20.0m	(£1.8m)	£43.4m	(£7.6m)	(23.7x)	2.4x
Bournemouth	**BOH***	**31-Mar-17**	0.7m	0.7m	£8.8m	£9.3m	(£0.5m)	£53.8m	(£1.5m)	(118.7x)	6.1x
Norwich	**NWI**	**31-Mar-18**	0.5m	0.5m	£14.0m	£10.3m	£3.7m	£12.4m	£1.5m	3.3x	0.9x
Newquay	**NQY**	**31-Mar-18**	0.5m	0.5m	£11.6m	£11.5m	£0.0m	£2.5m	(£0.0m)	82.9x	0.2x
Humberside	**HUY**	**31-Mar-18**	0.2m	0.2m	£8.1m	£7.3m	£0.8m	£4.3m	(£0.6m)	5.1x	0.5x
Durham Tees Valley	**MME***	**31-Mar-17**	0.1m	0.1m	£5.4m	£7.7m	(£2.3m)	£19.0m	(£2.4m)	(8.2x)	3.5x

Table 3 – Operational and Debt Summary (source: company reports)

203. The figure below illustrates the level of debt for each of the benchmark airports.

204. It should be noted that the debt levels quoted in the table are not commercial debt facilities that would typically be provided to airports. Each has its own special circumstance, for example:

- Cardiff and Prestwick debt is provided by their respective Welsh and Scottish government owners.
- Southend debt is provided by shareholder loans. Note that Southend Airport has a very large level of shareholder provided debt due to major redevelopment of the airport in the last few years, including a new passenger terminal. This funding is highly unlikely to be available in the commercial debt market.
- Doncaster Sheffield and Durham Tees Valley (until the sale to the public sector is completed later in 2019) debt is funded by shareholder loans from the Peel Group.
- Exeter, Bournemouth and Norwich are funded by the Rigby Group shareholder.
- Durham Tees Valley and Doncaster are related to Peel Group (with minority local authority shareholding).

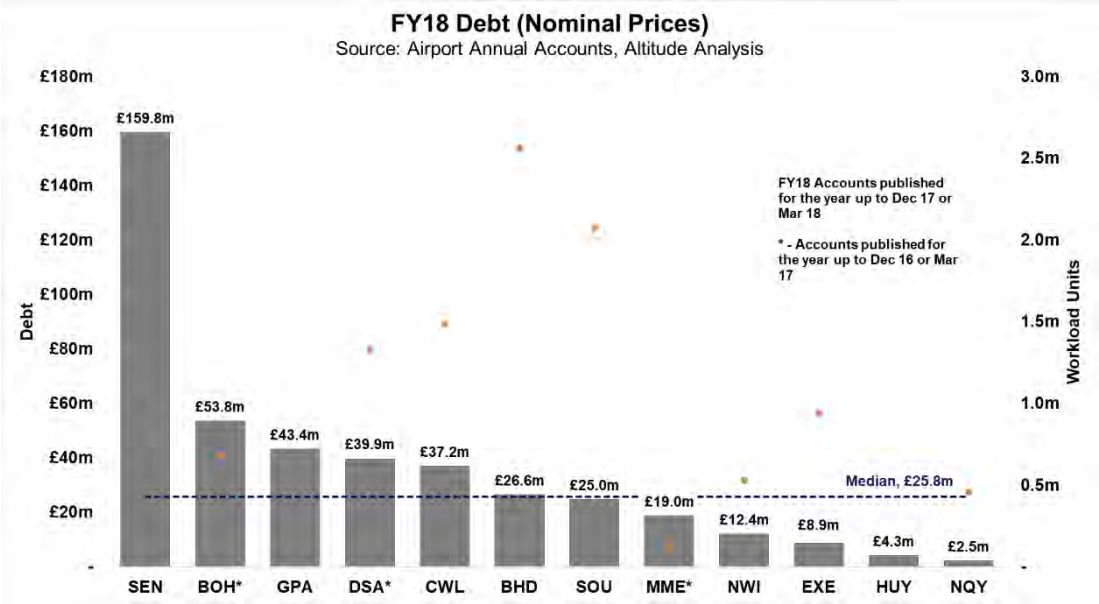


Figure 12 – Debt Levels

205. Larger throughput airports tend to have more debt due to higher capital expenditure requirements, e.g. capacity expansion and maintenance of runways and terminals, compared to the smaller throughput airport.

206. The debt / revenue ratio evaluates the airport's ability to generate revenue relative to its level of debt and throughput. The figure below illustrates this ratio for the benchmark airports.

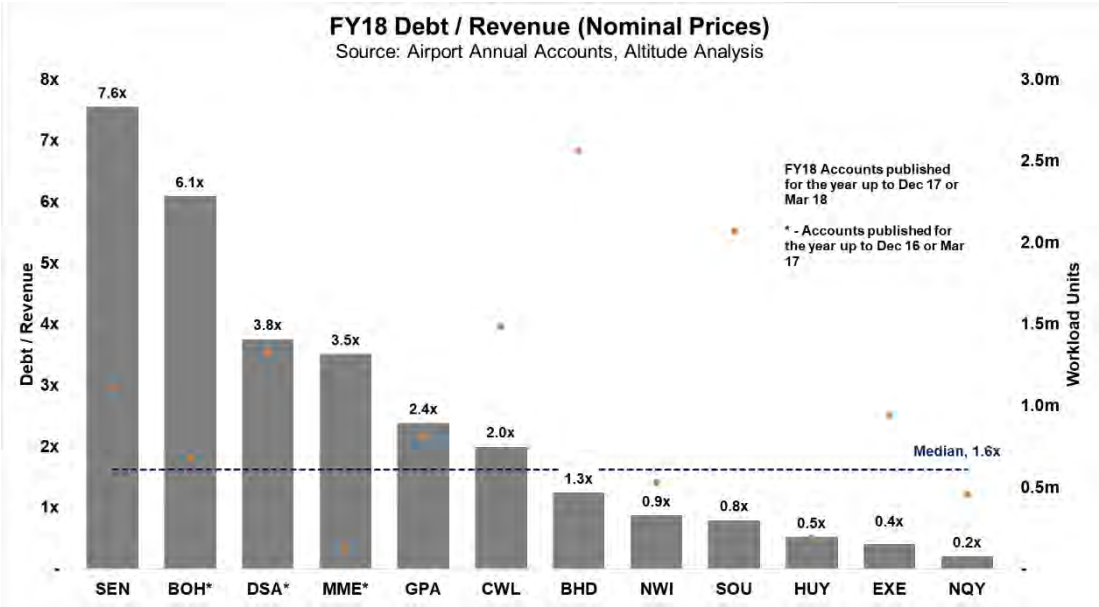


Figure 8 - Debt / Revenue Ratio

207. As outlined, Southend has significantly upgraded its infrastructure in recent years to accommodate passenger growth including a new terminal, primarily funded by debt (provided by way of shareholder loans). This has led to the airport having the highest debt / revenue ratio in the sample.

208. Excluding Southend, the larger throughput airports tend to have debt / revenue ratios below the median level (1.6x) whilst smaller airports tend to be well above the median.

209. Whilst the level of debt / revenue is interesting, analysis of the debt / EBITDA ratio provides a view of the ability of the business to generate sufficient operating cashflow to service the debt. Note that not all airports appear on the chart due to the scale of ratios. A full summary of these ratios is included in Table 3 above.

210. Debt / EBITDA ratio illustrates the ability of an airport to service its debt. The figure illustrates that small airports range between very high (e.g. Southend, Cardiff) and negative debt / EBITDA ratios which is driven by the challenging EBITDA performance environment set out in the financial performance section.

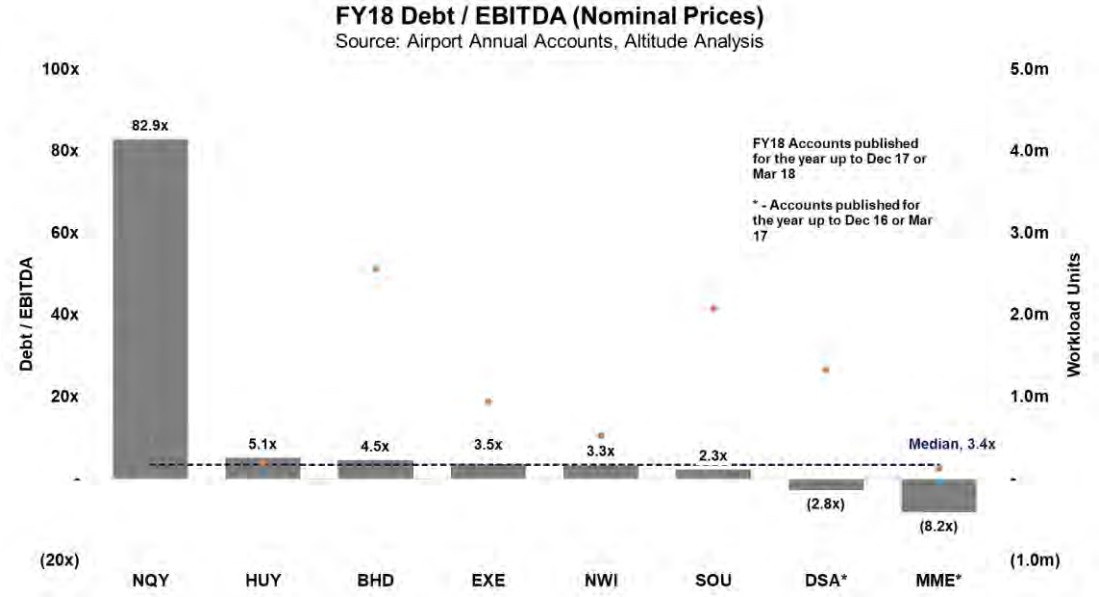


Figure 9 - Debt / EBITDA Ratio

211. Debt providers in the UK airport sector have tended to provide lending levels fluctuating around the range of 4x to 8x debt / EBITDA levels, depending on the external financing environment and particular characteristics of the airport.

- This range reflects larger throughput airports than the benchmark airports and have a lower perceived risk profile for debt providers due to the higher throughput levels and longer history of profitable performance.
- As part of their evaluation of the particular risks associated with an airport, lenders will assess the counterparty risk which we would expect to result in a material difference between experienced operators such as the Peel Group and RSP with no track record in the sector. The higher risk profile would be expected to result in no or less debt being provided and at higher cost than for experienced operators.

212. The chart illustrates that a number of the airports are in the 2x to 5x debt / EBITDA range, with the two largest throughput airports (Southampton and Belfast City) having relatively conservative debt / EBITDA ratio of 2.3x and 4.5x respectively.

- Our experience supports the view that the low levels of debt for those airports with positive EBITDA reflects the inherent risks for debt providers and places a ceiling on the level of commercial debt available for lower throughput airports.
- We would expect the perceived risks for debt providers to be higher for a reopened Manston Airport without strong support from a parent company or underpinned with firm revenue and volume commitments from passenger and cargo airlines reflected in executed contracts. Our experience is that it would be highly unusual for airlines to enter into such binding contractual commitments a number of years before an airport becomes operational.

213. For the other benchmark airports, the very high or negative debt / EBITDA ratios would make it extremely difficult to attract commercial debt providers and / or at reasonable interest rates.

- As outlined, many of the benchmark airports have debt provided through shareholder loans as commercial debt would not be available for these marginal and / or loss-making airports.

5.9. Summary

214. As outlined in the introduction, RSP has provided very limited financial forecasts or financing details relating to the application for the redevelopment and reopening of Manston Airport.

215. The lack of detailed and substantiated financial forecasts, and nothing of substance in relation to how the proposed investment could be commercially financed raises significant questions around the financial viability and fundability of the proposal.

216. The RSP forecasts equate to demand of 3.1m WLUs in Year 10. The performance benchmarking illustrates the difficulty that smaller throughput airports up to ca. 3m WLUs per annum have to generate sufficient revenue and profitability to be commercially viable.

217. There has also been a trend for smaller throughput UK regional airports being rescued by the public sector after experienced private sectors could not operate these airports on a viable commercial basis. RSP is not an experienced airport operator and does not have a track record of successfully developing or operating a commercially viable airport.

218. This context is important for the proposed reopening of Manston Airport as the analysis illustrates:

- A significant level of throughput is required to generate sufficient revenue to result in positive EBITDA[80] to service debt and / or capital investment – London Southend and Cardiff with 1.1m and 1.5m WLUs respectively achieved marginally positive EBITDA but posted large post-tax losses.
- Commercial lenders and equity providers will expect a track record of EBITDA generation to support funding of the business. A reopened Manston Airport would be a start-up business with a material capital investment requirement and no history of profitability.
- Our experience is that commercial debt and equity providers would be unlikely to provide funding to a reopened Manston Airport on a standalone basis without (i) parent company guarantees (from an entity of sufficient financial standing), and (ii) strong evidence of clear contractual volume and revenue commitments from airline users.
- The benchmarking indicates that a significant proportion (or all) of the funding would need to be provided by way of shareholder loans, as the required levels would not be available from debt providers.
- Based on the analysis of lower throughput UK regional airports and our experience of the UK airport debt market, we would expect a reopened Manston Airport to struggle to secure material levels of debt in the commercial lending market. As equity funders would also require detailed business plan information to inform their investment decisions, we would expect RSP to struggle to secure material equity investment given the loss-making history of the business over many years.
- RSP's application documents do not provide the most basic information that would allow any funder (debt or equity) to assess the financial viability of a reopened airport.
- Without a detailed business plan and supporting financial forecasts with detailed cost and revenue assumptions and supporting information that can be assessed and tested, there is little prospect of RSP raising any debt and / or investor finance from parties that would ordinarily fund UK airports.
- With RSP stating that construction will be underway in 2020, it is surprising that this information is not available and been shared with the Examination.
- The financial viability challenges for lower throughput UK airports have been highlighted in recent years with three airports being taken over by the public sector. Where new airports across Europe

[80] EBITDA is earnings before interest, tax, depreciation and amortisation

have been developed or airports reopened, it is highly unusual that the public sector has not made a material financial contribution to the viability of the proposals. The potential wider economic benefits to the region are usually cited to justify public sector investment (as was the case for the Cardiff and Prestwick airport investments by the public sector).

- No public sector investment is proposed by RSP which is likely to make funding of the proposal even more challenging on a commercial basis.
- Notwithstanding this, based on our experience and taking into account the very high-level information provided on capital investment, we are of the opinion that the airport is unlikely to be economically viable even if RSP could deliver on its highly optimistic forecasts.
- Our expertise of supporting many institutional investors in the UK and international airport sector confirms that they would have the same issues and challenges as a debt provider with the lack of financial information related to the deliverability and viability of the RSP proposals.
- A further material issue for the RSP proposal is the much higher threshold of information required to satisfy debt or equity providers for a start-up business with no track record of performance or profitability. This is particularly the case where the project sponsor has no demonstrable track record of developing or operating a commercially successful airport business. This lack of experience and credibility is likely to be a major issue for potential debt and/or equity providers.

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7. Annex – Altitude Report from January 2018

Analysis of the Freight Market Potential of a Reopened Manston Airport

Issued: January 2018

(Analysis completed in October 2017)

Scope of the Report and Limitation of Liability

- This report contains the results of our analysis in relation to potential air cargo demand at the former Manston Airport site (the "Work"). It has been prepared for Stone Hill Park Limited ("SHP") in connection with the proposed application for a Development Consent Order by RiverOak Strategic Partners Limited and for no other purpose. The proposed application is for the redevelopment and reopening of Manston Airport for international air freight along with passenger, executive travel and aircraft engineering services ("the Project"). The proposed application would also, we understand, seek to compulsorily acquire the whole of the former Manston Airport site from SHP.
- We do not accept a duty of care to any person other than SHP in respect of this report.

ALTITUDE AVIATION ADVISORY LIMITED

January 2018

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1. Introduction

1.1. Objectives of the Study

1. This report has been commissioned by Stone Hill Park Limited ("SHP"), the owners of the former Manston Airport site. The site is currently subject to a proposed application for a Development Consent Order ("DCO") under the Planning Act 2008 currently promoted by RiverOak Strategic Partners Limited ("RSP"). The proposed application is for the redevelopment and reopening of Manston Airport for international air freight along with passenger, executive travel and aircraft engineering services ("the Project"). RSP contends that the Project is a Nationally Significant Infrastructure Project for airport development for air freight and hence, should fall within the Planning Act 2008. RSP's proposed application could also seek powers of compulsory acquisition over the site, allowing RSP to compel the purchase of the site from SHP's ownership to RSP's ownership. The report has been developed in this context.

2. To date, RSP has generated a range of submissions as part of the DCO pre-application process. These include reports commissioned from Azimuth Associates ("Azimuth")[1] and Northpoint Aviation Services ("Northpoint")[2].

3. The objective of this report is to provide a review of the Azimuth and Northpoint reports. We also review other relevant documents, including two AviaSolutions reports[3] commissioned by Thanet District Council.

4. The Azimuth and Northpoint submissions are notable for making major assertions as fact without providing relevant supporting evidence. While we have drawn on our own extensive experience in the UK and international airport sector, we have utilised published material to support our analysis. As such, we have made efforts to limit the extent to which we rely on our own opinions, assumptions and/or calculations.

5. The focus of our analysis is the air cargo sector. We provide an evidence based assessment of key issues impacting the future development of air cargo in the UK. This comprises of:

    - Review of key historic and likely future trends in the air cargo sector.
    - Assessment of the ability of existing airports to meet future freighter and bellyhold cargo demand in the UK.
    - Appraisal of the ability of the Manston Airport site (if re-opened) to support the future development of the UK air cargo sector. Specifically, we investigate whether the site has the potential to meet the objectives specified by RSP in its proposed DCO application.

6. In this report, we do not, at this stage, undertake an in-depth review of air passenger related issues.

[1] (Azimuth Associates, 2017 a), (Azimuth Associates, 2017 b), (Azimuth Associates, 2017 c)
[2] (Northpoint Aviation Services)
[3] (AviaSolutions, 2016), (AviaSolutions, 2017)

1.2. Structure of the Report

7. Later in this section (Section 1.3), we provide an overview of the air cargo sector for the general reader. This includes an explanation of some key terms used in our report and an overview of important market dynamics. In the appendices (sections 10 and 11), a fuller description is provided.

8. A brief overview of Altitude Aviation Advisory is presented in Section 1.4.

9. The next section of the report (Section 2) is the Executive Summary.

10. In Section 3, we review the introductory section of the Azimuth suite of reports. In particular, we review the stated aims of the Azimuth reports, and comment on whether the questions put forward by Azimuth are appropriate and sufficiently targeted to adequately support the proposed DCO application.

11. In sections 4 to 7, we present our own analysis of the UK and global cargo market, including historic trends and outlook. This is then referenced later in the report when we critique the Azimuth freight forecasts.

    - Section 4 – We provide an analysis of how the UK cargo sector has developed, and focus on individual airports that are relevant in the consideration of the future potential for Manston. We also provide a summary of Manston's historic performance.
    - Section 5 – We investigate if there is an overall shortage of airport freight capacity in the UK, or if shortages are restricted to Heathrow only.
    - Section 6 – We provide a review of published capacity expansion plans from existing airports. This allows us to build up a picture of freight capacity at UK airports in the period to 2050.
    - Section 7 – Our forecast for UK freight demand is presented in this section. Our forecasts are compared with other published projections. We also assess whether there is likely to be any overall imbalances between demand and supply in the period to 2050.

12. In Section 8, we provide a comprehensive review of the Azimuth freight forecasts for Manston. This includes a critique of the methodology as well as the forecast projections themselves.

13. In the appendices, background material on the air freight segment and recent trends is included. There is also a case study of two major European freighter airports and further supporting analysis for some of the material in the main body of the report. We also review other related reports by Northpoint (on behalf of RSP) and AviaSolutions (on behalf of Thanet District Council).

14. Finally, a list of figures and a list of references are included at the end of the document.

1.3. Introduction to the Air Cargo Sector

15. Generally, products that make use of air transportation are high value and/or time critical, and can be easily packaged.

16. Whilst there are many different types of *air cargo*, at a high level, most can be categorised as either *freight*[4] or *mail*. Most freight can then be defined as either *general* or *express*.

    - Mail is typically letters and parcels, delivered to final destination by the postal service of a given country.
    - Express freight is typically "next-day" shipments that are collected from the shipper by close of business and are required by the consignee by close of business the following day.
    - General freight is everything else (this category is very broad, and also includes several types of low-volume specialist products such as hazardous, valuable and live animal cargo).

[4] In this report, we concentrate on the freight segment (which is more relevant in the context of Manston). Where it is not meaningful to distinguish between freight and mail, we provide analysis of the air cargo segment overall.

17. Air cargo can be carried either in a dedicated aircraft (a *freighter* or *cargo only aircraft*), or in the hold of commercial passenger aircraft (when it is known as *bellyhold cargo*).

18. A freighter aircraft will be able to carry more cargo than can be carried in the bellyhold of a similarly sized passenger aircraft. Furthermore, freighter aircraft are able to handle larger individual pieces of cargo than can be loaded in the bellyhold of passenger aircraft.

19. With this exception, there is typically no aircraft driven preference from the customer as to whether cargo is shipped in a freighter or in the bellyhold of a passenger aircraft. Other sources of preference include:

    - Freighters may be the only option if there are no passenger flights offering bellyhold capacity (the number of unserved destinations has shrunk as the number of passenger flights has grown).
    - From an origin with both bellyhold and freighter capacity, a larger number of frequencies and destinations may be available via bellyhold, due to the generally more extensive schedules of passenger airlines than cargo airlines.
    - Bellyhold capacity on passenger aircraft is often significantly cheaper to provide than freighter capacity, as many of the largest fixed costs are assigned to the passenger business (e.g. aircraft operation, landing fees, fuel needed to fly the aircraft[5]).

20. In recent years, bellyhold has been capturing an increasing share of the overall air cargo market. This is a global development, primarily due to faster growth in passenger demand than cargo demand. Therefore, bellyhold cargo capacity has been growing ahead of cargo demand, diminishing the need for dedicated freighter aircraft.

21. The air transport of air freight is typically carried out by one of three types of operator:

    - *Cargo only airlines* (using freighters), such as Cargolux.
    - *Passenger airlines* (using bellyhold space on passenger aircraft), such as British Airways. Some passenger airlines also operate a number of freight-only aircraft (a relatively small number compared to the number of passenger aircraft they operate).
    - *Integrators*, such as DHL, use a mix of their own freighter aircraft and purchased space on passenger aircraft. A large majority of the cargo handled by integrators is express freight. Integrators have a wider role than purely air transportation; they transport freight from door-to-door using a network of vans and trucks, as well as aircraft when necessary.

22. All carriers make extensive use of trucking in order to get freight to/from an airport. *Road feeder services* use trucks to bring freight to an airport from consolidation points across the catchment region.

23. Additionally, trucks will replace flights where it makes economic sense to do so.

    - For express freight, where next day delivery is required, this typically includes destinations within ca. 500km of the airport.
    - For general freight (i.e. without next day delivery requirement), trucks may be the more economic option for any intra-regional route. Replacement of flights with trucks has become more prevalent in Europe, to the extent that Airbus comments on it in their most recent forecast.

24. In this report, we refer to the concepts of *passenger hub* and *cargo hub* airports. These are terms that can be used somewhat loosely, and on occasion can simply be used to signify a large airport. For clarity, we define here precisely what we mean by these terms.

25. First, it is useful to present the Airports Commission[6] definition of a passenger hub:

[5] Incremental fuel needed for the uplift of cargo will typically be charged to the cargo business.
[6] (Airports Commission, 2015, p. 13)

> *"Airlines and alliances route their traffic through one or more key airports ('hubs'), with feeder traffic from other airports in the network (the 'spokes') supplementing local origin and destination traffic at the hub. For passengers, the hub-and-spoke model maximises the choice of direct destinations at the hub airport and offers potential to travel to a very wide variety of destinations on one ticket."*

26. Although the UK has several large airports, Heathrow is the only major passenger hub in the UK. A significant proportion of its passengers are transfer or connecting passengers (changing flights at Heathrow). In contrast, Gatwick is not a major passenger hub, despite being the 8th largest airport in Europe in 2016. Its traffic primarily consists of passengers starting or finishing their air journey at Gatwick.

27. The concept of a cargo hub is similar to a passenger hub. Cargo is fed into the hub from a wide geographic area. This can be through cargo feeder flights generating *transhipment cargo* (cargo which is transferred from one aircraft to another at the cargo hub). The other source of cargo that feeds into a cargo hub is from road feeder services. These trucking routes play a similar role to flights in bringing freight from a large catchment into the airport, which is then transferred to a flight (or even onto another trucking service).

28. Major passenger hubs are frequently also acting as cargo hubs (due to the significant amount of bellyhold capacity available, the schedule connectivity, and the economies of scale). Heathrow is the UK's largest cargo hub, despite having a relatively small number of dedicated freighter services. Frankfurt is a leading example of a major passenger hub that also has an extensive range of freighter flights.

29. The other two cargo hubs in the UK are East Midlands and Stansted. Neither airport is a passenger hub. In both cases, cargo is almost exclusively carried on dedicated freighter aircraft. *Dedicated freighter hubs* (cargo hubs at non-passenger hub airports) typically have fairly unrestricted operating conditions (e.g. 24-hour operations, slot availability) and are centrally located. Integrators usually account for a substantial share of cargo at dedicated freighter hubs.

30. These definitions are important in the context of Manston. The location of Manston on a peninsula prevents its development as a cargo hub[7]. Even if the airport was to successfully attract high cargo tonnage in the future (which we consider unlikely), it would merely become a large cargo airport rather than a cargo hub.

31. The final term to introduce is *freight forwarders*. These are firms specialising in arranging storage and shipping of merchandise. Freight forwarders typically provide warehousing, negotiate and book aircraft cargo space, prepare documentation, arrange insurance and track progress of freight. They also consolidate cargo, where several smaller shipments are assembled and shipped together to avail of better freight rates and security of cargo[8]. Freight forwarder activity is usually concentrated at major cargo hubs (whether bellyhold or dedicated freighter hubs). This is due to economies of scale benefits.

[7] True cargo hubs are at the centre of their catchment area, with 360-degree connectivity (i.e. receiving road feeder services from all spokes of the wheel). Due to its location, Manston could only receive road feed from the west of the airport.
[8] www.businessdirectory.com

1.5. About Altitude Aviation Advisory

32. Altitude was formed in May 2013, and brings together a wide range of experience gained within the aviation sector. The two principals have worked in the aviation sector for a combined total of more than 50 years.

33. Team members have been involved in a diverse mix of strategic and commercial projects for a wide range of clients including airports, airlines, investors, debt providers, government and regulatory bodies. Our main service areas are airport transactions, business optimisation, traffic forecasting, route development and economic regulation.

34. Since 2013, we have worked directly for 10 different UK airports on a range of strategic, business planning and traffic forecast assignments. We have also provided due diligence support for various UK airport transactions covering 8 airports (all to financial close). In total, we have undertaken multiple projects across 13 different UK airports, either directly and/or as part of a transaction.

35. While the UK is our home market, the company has a global footprint. Our team experience encompasses over 150 airports worldwide. In 2017 alone, we have undertaken projects in Australia, Italy, USA, Russia, Denmark, Turkey, Belgium, Ireland, Serbia, Iceland, Hungary, Cyprus, and Portugal.

36. The Altitude team has considerable cargo experience. This includes previous employment working in the cargo division of a major airline and consultancy experience leading stand-alone cargo strategy projects in geographies as diverse as the UK, Eastern Europe, Middle East, and North America.

2. Executive Summary

2.1. Overview

37. We have undertaken an in-depth review of the Azimuth reports, and developed our own analysis of the future potential for freight at a reopened Manston Airport.

38. Manston has historically played a role as a niche air freight airport. We do not see potential for a more significant role in the future. This is in contrast to Azimuth. Azimuth's forecasts show the airport more than doubling its previous annual freight record in the first year of freight traffic returning. By year 18 of Azimuth's forecast, Manston is forecast to exceed the 2016 freight tonnage at East Midlands Airport (the largest dedicated freighter hub in the UK). This is simply not credible or likely.

39. We have identified significant weaknesses in the Azimuth analysis and forecasts. The following factors have not been acknowledged and/or adequately reflected:

- There is no overall shortage of freight capacity in the UK or South East specifically. While Heathrow is constrained, there is significant spare freight capacity at the established dedicated freighter hubs at Stansted and East Midlands.
- Cargo activity in the UK has become very consolidated on the 3 cargo hubs (Heathrow, Stansted and East Midlands). All three of these airports have plans to significantly expand cargo capacity, and they forecast strong growth in cargo tonnage. Furthermore, other established passenger airports have the capability of handling much higher cargo volumes if demand existed.
- There has been a strong trend towards bellyhold freight, with the role of dedicated freighters diminishing. The most recent (2017) Department for Transport ("DfT") forecasts to 2050 assume the number of freighter flights in the UK will remain flat at 2016 levels[9].
- Trucking is a highly integrated component of the air freight business model, and not merely a substitute for air freighter flights when airport capacity is constrained. The increasing use of truck feeder services is due to cost efficiencies and is not restricted to the UK.
- Manston is in a poor location to serve the wider South East or UK market. Other structural disadvantages include lack of critical mass, lack of a passenger hub, and night flight restrictions. These factors have limited Manston's role to that of a niche freight airport.

40. We consider the Azimuth freight forecasts to be extremely optimistic, with negligible supporting evidence. In particular:

- Historic performance is ignored (both at Manston or more generally across the UK market – the Azimuth growth forecast for Manston would be unprecedented in a UK context).
- There is a heavy reliance on qualitative techniques, with no substantive attempt to quantify the size of the markets Manston will be competing in, or how it would gain market share.
- Many of the references from published studies are too generic to be meaningful or are taken out of context.
- In making the case for Manston, Azimuth seeks to rely on reports prepared by York Aviation in 2013 and 2015. We share York Aviation's view, as set out in a parallel report commissioned by SHP, that these reports do not support Azimuth's conclusion that there would be a substantive role for Manston in the UK air freight industry.

41. Finally, we also view the Azimuth cargo air transport movement ("ATM") projections for Manston to be very optimistic and again unlikely. The projected average freight loads per flight are much lower than historic levels, and also lower than typically seen at cargo airports specialising in general freight (i.e. with

[9] (Department for Transport, 2017a, p. 33)

limited integrator presence). Even if the freight forecasts were achieved (which we consider very unlikely), we would anticipate significantly lower numbers of cargo air transport movements.

2.2. Introduction

42. Azimuth has published four reports in support of RSP's proposed DCO application. Volume 1[10] aims to answer the following questions:

> *"Does the UK require additional airport capacity in order to meet its political, economic, and social aims?*
>
> *Should this additional capacity be located in the South East of England?*
>
> *Can Manston Airport, with investment from RiverOak, relieve pressure on the UK network and meet the requirement of a nationally significant infrastructure project?"*

43. Azimuth concludes that *"the answer to each of the above questions is overwhelmingly yes"*. However, the questions conflate different issues. The first two questions provide poor context for the third question, and are not relevant to RSP's proposals for Manston.

44. We agree that the UK needs additional airport capacity, and that it should be located in the South East of England. This is not surprising given that:

- In September 2012, the Government asked Howard Davies to chair an independent Commission to identify and recommend options to maintain the UK's position as Europe's most important aviation hub[11] ("the Airports Commission").
- The Airports Commission concluded that "*a new runway in the South East is needed by 2030*". It also "*concluded that the best answer is to expand Heathrow's runway capacity*" as "*Gatwick… is unlikely to provide as much of the type of capacity which is most urgently required: long-haul destinations in new markets. Heathrow can provide that capacity most easily and quickly. The benefits are significantly greater, for business passengers, freight operators and the broader economy*[12]".
- In October 2016, the Government announced that its preferred scheme to meet the need for new airport capacity in the South East was a Northwest runway at Heathrow. This was subsequently confirmed in its revised draft Airports National Policy Statement ("ANPS"), published in October 2017. The ANPS[13] stated that "*The Heathrow Northwest Runway scheme delivers the greatest support for freight. The plans for the scheme include a doubling of freight capacity at the airport*." The draft ANPS, once ratified by Parliament, will settle the "need" case for the Northwest runway at Heathrow, but no other form of airport development.

45. However, while we agree with the positive response to the first two questions, it does not automatically lead to a "yes" for the third question. The third question covers fundamentally different issues to the first two questions.

46. There are clear distinctions between different types of airport capacity. The Gatwick option would have provided more incremental runway movements than the recommended Heathrow option[14]. However, a key reason for recommending Heathrow was that *"It delivers more substantial economic and strategic benefits than any other shortlisted option, strengthening connectivity…*[15]*"*

[10] (Azimuth Associates, 2017 a, p. I)
[11] (Airports Commission, 2015, p. 37)
[12] (Airports Commission, 2015, p. 4)
[13] (Department for Transport, 2017b, p. 31)
[14] (Airports Commission, 2015, p. 238)
[15] (Airports Commission, 2015, p. 245)

47. RSP is promoting a reopened Manston Airport on the basis of providing capacity for dedicated freighter flights:

- Bellyhold freight comprises ca. 70% of UK freight (see Figure 4), a proportion that has been growing since 2004 (see Figure 5). Azimuth's freight forecasts do not assume any bellyhold freight[16]. We agree with this Azimuth assumption, and consider that the development of bellyhold freight at Manston is extremely unlikely.
- Azimuth's forecasts passenger traffic of ca. 1.4 million by the 20th year of operation[17]. We consider these forecasts to be optimistic. However, even taking these forecasts at face value, the passenger throughput would represent less than 1% of 2016 passenger traffic at London airports.

48. Therefore, rather than asking "*Can Manston Airport, with investment from RiverOak, relieve pressure on the UK network and meet the requirement of a nationally significant infrastructure project?*", more relevant, targeted questions would be:

- Considering planned airport expansions, will there be a need for further airport capacity in the UK for dedicated freighters?
- Will the South East in particular require additional capacity for dedicated freighters?
- Would a reopened Manston be well placed to effectively serve a significant proportion of the dedicated freighter market?
- Are there other potential airport options for new dedicated freighter capacity?

49. In the rest of the Executive Summary, we address each of the sub-questions above in turn.

2.3. Need for Further Airport Capacity in the UK for Dedicated Freighters

Current Situation

50. There is no overall shortage in UK airport capacity for dedicated freighter operations. Both of the two largest freighter hubs, East Midlands and Stansted, can accommodate significantly more freighter services than they currently operate (see Section 5.3).

51. The UK does lack available dedicated freighter capacity at its major passenger hub airport, Heathrow.

- Heathrow is also the UK's largest freight airport with ca. 65% of the UK's overall throughput (see paragraph 109).
- Freight forwarder activity has consolidated around Heathrow on the strength of its extensive network of long haul passenger services. These services, typically using widebody aircraft, provide substantial bellyhold cargo capacity.
- At Heathrow, only ca. 5% of freight is carried on dedicated freighters (see Figure 4). A lack of available runway slots restricts freighter activity. In the absence of operating constraints, major passenger hubs tend to also play a role as key hubs for freighter aircraft (e.g. Frankfurt). Freighter services complement the connectively provided by passenger flights, while the cargo industry benefits from economies of scale and scope from the consolidation of activity at a hub airport.

52. Where dedicated freighter flights cannot be accommodated at Heathrow (due to capacity constraints), freight customers have the following choices:

- Operate freighter flights (or use existing freighter flights) from other UK airports where capacity is available (e.g. Stansted, East Midlands).
- Transport freight in the bellyhold of passenger flights from Heathrow (or other UK airports).

[16] (Azimuth Associates, 2017 c, p. 11)
[17] (Azimuth Associates, 2017 c, p. 16)

- Transport freight to a major European air freight hub (e.g. Liege, Frankfurt), typically by road truck.
- Use surface modes of transport (road, rail, water) for the whole journey (note that this is not a realistic option for most potential air freight consignments due to the distances involved and/or urgency of shipment).

53. Azimuth asserts that UK air freight has been constrained since 2000[18]. Furthermore, Azimuth concludes that shortage of airport capacity is leading to more trucking of freight ("*flying freight from Manston, negating the need to truck, to and from European airports for air transportation*[19]").

54. We consider that these conclusions are highly simplistic:

- As discussed above, we agree there is a shortage of dedicated freighter capacity at the UK's main passenger hub airport (Heathrow). However, freighter capacity is available at other airports. For example, both Stansted and East Midlands have expanded freighter activity significantly since 2000, and continue to have spare capacity.
- Therefore, any shortage of air freight capacity in the UK relates specifically to Heathrow hub capacity rather than a more general lack of capacity.
- Trucking is a highly integrated component of the air freight business model, and not merely a substitute for air freighter flights when airport capacity is constrained. The increasing use of truck feeder services is due to cost efficiencies and is not restricted to the UK (see Figure 32). We see no evidence that the growth in trucking is primarily driven by lack of Heathrow capacity for air freighter flights.
- In any case, even if there were significant levels of trucking caused by constraints at Heathrow, this would only be reduced by the provision of more Heathrow runway capacity. As there is already spare capacity at other airports in the UK, provision of further capacity would not make any significant difference to trucking levels. There is no reason why economic decisions to truck freight rather than fly would change in the absence of new Heathrow capacity.

Future Requirement

55. We have assessed the future demand for air freight in the UK, reflecting some notable trends:

- Increasing role of passenger aircraft in the carriage of air freight, and the relative diminishing in importance of freighter aircraft. Passenger demand has developed strongly in recent years. This has led to expansion of cargo capacity in the bellyhold of passenger aircraft outstripping growth in air freight demand (see Figure 37).
- This trend has led to cutbacks in dedicated freighter operations from leading airlines such as Cargolux, IAG, Air France-KLM and Singapore Airlines (see paragraph 425). Airbus forecasts growth of just 42 freighters in European fleets by 2036[20]. In the UK, freight tonnes carried on all-freighter aircraft peaked in 2004, and has fallen from 37% of the total air freight to 30% by 2016 (see Figure 5). The most recent Department for Transport forecasts to 2050 assume the number of freighter flights in the UK will remain flat at 2016 levels[21].
- There has also been a clear move towards consolidation of air freight activity at major passenger or freight hubs[22]. In the UK, the leading 3 airports (East Midlands, Stansted and Heathrow) have steadily grown their share of overall UK air freight tonnes on dedicated freighter services – from 41% in 1990 to 86% in 2016 (see Figure 7). The UK bellyhold market is even more consolidated,

[18] (Azimuth Associates, 2017 a, p. 8)
[19] (Azimuth Associates, 2017 a, p. 19)
[20] (Airbus, 2017a, p. 105)
[21] (Department for Transport, 2017a, p. 33)
[22] See Paragraph 24 onwards for our definition of passenger and cargo hubs. Note that the location of Manston on a peninsula prevents its development as a cargo hub. Even if the airport was to successfully attract high cargo tonnage in the future, it would merely become a large cargo airport rather than a cargo hub.

with the leading 3 airports (Heathrow, Manchester, Gatwick) achieving a combined market share of 97%+ in each year since 1996 (see Figure 11).

56. These fundamental market trends have not been recognised or have been ignored by Azimuth in its assessment of the potential for a re-opened Manston.

57. We have developed a forecast of UK air freight demand to 2050, linked to UK economic growth (see Section 7.1). We forecast a compound annual growth rate ("CAGR") 2016-40 of 2.4%, much higher than recent growth rates (e.g. CAGR 2010-16 of 0.4%, CAGR 2000-2016 of 0.2%). This results in ca. 4.2m tonnes of demand in 2040.

58. Based on published expansion plans and various prudent assumptions (see Section 6.4), we estimate that the available air freight capacity at the leading 5 UK airports alone will be around 5m tonnes per year in 2040. This is comfortably higher than the envisaged demand levels. Furthermore, the potential freighter capacity is significantly above our freighter demand forecast, and the potential bellyhold capacity is significantly above our bellyhold demand forecast.

59. Furthermore, we do not envisage overall capacity shortages in the shorter term. Only towards 2050 could capacity start to become constrained, assuming no further development of capacity from 2040 onwards. Therefore, any business that Manston could capture would primarily be at the expense of other UK airports.

Conclusion

60. The UK currently has sufficient overall airport capacity for air freight, albeit capacity at Heathrow is constrained.

61. Based on planned expansions at the existing major airports, we do not envisage a need for additional freight capacity to be developed in the period to 2040, or possibly 2050.

62. Therefore, there is not a compelling need for development of further airport capacity for freighter aircraft in the UK.

2.4. South East Requirement for Additional Dedicated Freighter Capacity

63. Cargo is less time sensitive than passengers. Therefore, an airport's cargo catchment area is typically many times larger than its passenger catchment. This is one of the key factors that leads to the high degree of consolidation seen for air cargo.

- For example, Leipzig Airport considers its catchment covers a 10-hour trucking radius (see Figure 38), while Liege sees its catchment as all areas within access of a full day trucking (see Figure 39).
- East Midlands serves the whole of England and Wales, exploiting its central location in England.
- Similarly, the extensive network of long haul flights from Heathrow means it attracts freight from the whole of Great Britain.

64. Mainly due to the hub strength of Heathrow, 78% of 2016 UK air freight was flown from airports in the South East & East of England. Heathrow and Stansted alone achieved 65% and 7% market share respectively.

65. Much of the UK's high value manufacturing is located outside London and the South East[23]. In Q1 2015, only 15% of UK manufacturing jobs were located in London and South East[24]. Clearly, a substantial proportion of air freight using Heathrow in particular will be travelling to/from other areas of the UK.

66. We do not see a need for new air freight capacity to be located in the South East specifically. New capacity would be most usefully concentrated at existing major air freight hubs, whether in the South East

[23] (Heathrow Airport, 2014, p. 19)
[24] (House of Commons Library, 2015, p. 7)

(Heathrow, Stansted) or outside (East Midlands). This would enable the air freight industry to continue to benefit from the economies of scale and scope flowing from market consolidation.

67. The Airports Commission negatively assessed the freight potential of Gatwick due to its location. It stated, "*Gatwick's position to the south of London limits its effectiveness as a national freight hub*[25]." This is consistent with our view that locations which can be accessed from a wide national catchment (whether in the South East or not) are more advantageous than locations in less accessible parts of the South East. We would also consider Gatwick to be a more accessible location than Manston.

2.5. Market Position of a Reopened Manston

68. We have argued above that there is no requirement for additional air freighter capacity in the South East, over and above developments already in the pipeline (being consented or planned) at existing airports.

69. However, even if our assessment is incorrect and further capacity is needed in the future, Manston would not be an effective solution.

70. While a re-opened Manston would contribute to overall UK freighter capacity, it clearly would not provide "hub" capacity of the type that is constrained at Heathrow.

- The inability of Manston to achieve more than 43,000 tonnes[26] in any single year in the period from 2000 until its 2014 closure highlights that the capacity provided at Manston was not a suitable substitute for Heathrow freighter capacity.
- In the same way, many other UK airports have material underutilised freighter capacity despite Heathrow constraints.

71. Manston's geographical location severely restricts its ability to develop into a national dedicated freighter hub. Were Manston airport to be re-opened at some point in future, it would likely be competing directly with East Midlands and Stansted for cargo-only flights. The outlook for the airport in this scenario is poor.

72. Firstly, the location of Manston on a peninsula physically limits the size of its catchment area.

- Within a 3-hour drive, only the South East & East of England, and a small part of the Midlands, are accessible (see Figure 17).
- In comparison, most of England and Wales can be accessed within 3 hours of East Midlands Airport, while Manston's catchment is essentially a sub-set of the Stansted catchment.
- The case studies of Liege and Leipzig, as well as the strong growth of cargo at East Midlands, indicate the importance of a large catchment area and central location. While these airports attract cargo from an extensive area, they also benefit from strong cargo demand within their immediate catchment.

73. In addition to Manston's poor geographic location, it is also relatively far from important transport infrastructure. The motorway network is not especially close (the airport is ca. 22 miles from the M2 and 38 miles from the M20). Successful freight airports in the UK and Europe have been shown to be extremely close to the national motorway network, helping to minimise the shipper/consignee to airport transport time[27].

74. Secondly, there is a consensus[28] in the air freight industry that the ability to handle night flights is critical for many types of air cargo (in particular for express freight, but also for other types of cargo).

- East Midlands and Stansted are both able to accommodate flights 24 hours per day.

[25] (Airports Commission, 2015, p. 24)
[26] Average ca. 28,000 tonnes/year for the period 2000-2013 (last full year of operation). Source: CAA airport statistics.
[27] For example, East Midlands Airport is within 3 miles of the M1 motorway. Similarly, Stansted is less than 3 miles of the M11 motorway. The Heathrow Cargo Centre is within 3 miles of the M4, ca. 5 miles from the M25 and ca. 8 miles from the M3.
[28] For a typical industry comment on this issue, see paragraph 446

- Both Liege Airport and Leipzig Airport cite the ability to accept night flights, and the support of local government in doing so, as factors in their success.
- It is unclear (in the context of historic restrictions) whether or not night flights would be allowed at Manston Airport were it to reopen. However, it does seem clear that restrictions on night flying would have severe limitations for air cargo potential at the airport.

75. Finally, as noted previously, there is a clear move towards consolidation of freight activity at a few large airports. In order to be successful, Manston would need to reverse this well-established trend. It is not apparent how this could be achieved, even with markedly lower airport charges (which in turn would compromise the financial viability of the airport).

76. Therefore, even if there was a future need for additional airport capacity for freighter activity, Manston is poorly placed in both geographic and potential operational terms to service such a requirement. Other airports are in a much better position to exploit any such future opportunities.

2.6. Other Potential Options for New Dedicated Freight Capacity

77. Azimuth concludes that "*Manston is the only real choice for the location of a freight-focused airport in the South East of England*[29]". As discussed above, we dispute the need for a new freight-focussed airport, or that any such airport would need to be located in the South East. If new capacity was needed in the South East, a more central location than Manston's position on a peninsula would be desirable.

78. Bournemouth Airport is dismissed by Azimuth on account of its location and distance from the motorway network. We agree that these are significant disadvantages but similar issues apply to Manston (with its location arguably even more compromised than Bournemouth).

- From the South West, West London and the Midlands, Bournemouth is generally more accessible than Manston.[30]
- Bournemouth Airport[31] highlights that:

> *"With ample room to grow, our thriving cargo facility is expanding to meet the demands of importers and exporters from across the UK. Accommodating a huge variety of freight and passenger aircraft, Bournemouth supports cargo logistics round the clock, with the following benefits: 2271m runway, excellent good weather record, congestion free (with no slot restrictions), experienced in handling many cargo aircraft including the AN-124 Ruslan, 'Freighter friendly' airport management."*

79. As discussed, the South East is not necessarily the best location for new freighter capacity. Outside the South East, Doncaster Sheffield Airport has a central UK location. It markets itself as "*the UK's Freighter Gateway*[32]":

> *At the centre of the UK with easy access to the M18, M1, A1M, M62 and M180 Doncaster-Sheffield is the ideal airport for freighter operations. DSA is justifiably gaining the reputation as the most effective freighter airport in the UK. The attributes that are delivering this include…. exceptional performance record, 24 hour operation, runway 2,893m x 60m, CAT III, Class "D" controlled airspace, no slot constraints/congestion, Competitive jet fuel prices, short taxiing distances, excellent cargo reception and handling, inclusive pricing, NEQ capacity up to 9,300kg Hotac."*

[29] (Azimuth Associates, 2017 a, p. 19)
[30] For example, the following distances have been sourced from Google Maps for the typical fastest routing. Bournemouth Airport to Hounslow: 90 miles, Manston Airport to Hounslow: 103 miles. Bournemouth Airport to Bristol: 70 miles, Manston Airport to Bristol: 201 miles. Bournemouth Airport to Birmingham: 167 miles, Manston Airport to Birmingham: 197 miles.
[31] www.bournemouthairport.com/about-us/doing-business-together/cargo/
[32] www.therouteshop.com/profiles/doncaster-sheffield-airport/

80. Both these airports are currently operational, and benefit from a large site with a long runway. Doncaster Sheffield operates 24 hours a day, whilst night flights at Bournemouth can be arranged with prior notice.

81. Furthermore, Birmingham and Doncaster Sheffield have longer runways than Manston, with spare capacity to develop freighter activity. Both have superior locations than Manston.

2.7. Conclusion

82. It is highly unlikely that a re-opened Manston could play any significant role in serving the needs of the UK air cargo industry. There is currently no shortage of overall capacity, and future demand growth into the long term can be met with planned expansion from the leading cargo airports in the UK.

83. The Azimuth freight forecasts for Manston are summarised below:

- In Year 2 (the first year of freight traffic), tonnage is forecast to be more than double the previous Manston peak annual value.
- By Year 11, freight throughput is forecast at similar tonnage to 2016 Stansted performance. Growth from Year 2 to Year 11 is forecast at CAGR 9.7%.
- By Year 18, Manston is forecast to exceed the 2016 freight tonnage at East Midlands Airport (the largest dedicated freighter hub in the UK).

84. We consider the forecasts to be extremely optimistic, not credible or likely, with negligible supporting evidence.

- Growth in freight at Manston would be unprecedented in a UK market context, and in complete contrast to previous historic performance.
- As discussed previously, we do not expect there to be an overall shortage of freighter capacity in the UK or South East. Even if we are wrong in this assessment, Manston and other smaller airports have shown no signs of benefiting from supposed capacity shortages in recent years. Furthermore, there is demonstrable spare capacity at Stansted and East Midlands, both better established and located.
- The rationale for why Manston will be able to achieve a massive uplift on previous performance is weak. The stated advantages of using Manston were present when the airport struggled to grow freight volumes, despite investment in infrastructure and marketing (the previous owners invested £7m on new aprons and taxiways, increasing the freight capacity to 200,000 tonnes[33] per annum). Lack of Manston capacity was not a factor.
- As well as the forecasts ignoring historic performance, they also do not reflect the very clear market trends towards consolidation of freight at major passenger and dedicated freighter hubs. UK airports outside the major three freight hubs have seen volumes fall. There is also a trend away from freighter services towards bellyhold freight.

85. Manston previously operated as a niche air freight airport. While it could theoretically regain this role in the future, its structural disadvantages (location, lack of critical mass, lack of passenger hub, night flight restrictions etc.) will severely limit its potential. Even if reinvested, relaunched and supported, we would not expect freight volumes to be materially above historic levels, and considerably below the volumes forecast by Azimuth.

86. Finally, the forecast of freighter ATMs is simply not credible.

- By year 20, ca. 17,000 freighter flights are forecast for Manston.

[33] (Wiggins Group plc, 2002, p. 16)

- This represents one-third of current UK freighter flights, in a market where the number of freighter ATMs has been contracting. This trend has been recognised by the DfT, with its 2017 forecasts to 2050 assuming the number of freighter flights in the UK will remain flat at 2016 levels[34].

87. In particular, we note that York Aviation's professional opinion[35] is that the capability of Manston Airport is 21,000 annual air cargo aircraft movements. This capacity is more than enough to accommodate any potential a re-opened Manston Airport may have.

88. In paragraph 48, we put forward four questions in relation to RSP's proposals for Manston. These are more relevant and targeted than the broader questions posed by Azimuth in its first report[36]. The answers to our questions have been developed over the course of the Executive Summary of this report. We summarise our conclusions in the table below.

Question	Response
Considering planned airport expansions, will there be a need for further airport capacity in the UK for dedicated freighters?	No, planned expansions at existing airports should comfortably provide sufficient freighter capacity until 2040 and beyond.
Will the South East in particular require additional capacity for dedicated freighters?	No, Stansted is planning significant capacity growth. A third runway at Heathrow will provide additional bellyhold capacity (putting downward pressure on freighter demand). Finally, the South East market can be well served by airports more centrally located in England.
Would a reopened Manston be well placed to effectively serve a significant proportion of the dedicated freighter market?	No, a reopened Manston would only serve a niche role, similar to its historic record. It has a poor location and operating restrictions.
Are there other potential airport options for new dedicated freighter capacity?	Yes, there are many UK airports with excess freighter capacity. For example, Doncaster Sheffield Airport has a central UK location. It markets itself as the UK's freighter gateway. It benefits from a large site with a long runway, and has 24 hour operations.

Table 1 – Summary of Analysis of Potential Future Freight Role for a Reopened Manston Airport

89. As can be seen above, when one asks more targeted questions, the outcome is very different to that presented by Azimuth. Our overall conclusion is that the RSP proposals and the Azimuth forecasts are deeply flawed. The outlook put forward by RSP / Azimuth does not reflect market realities. We would expect freight tonnage and freight ATM outturn at a reopened Manston to be considerably below the Azimuth forecasts.

[34] (Department for Transport, 2017a, p. 33)
[35] (York Aviation, 2017)
[36] (Azimuth Associates, 2017 a, p. I)

3. Review of Azimuth Reports - Context

3.1. Aims of Azimuth Report

90. This section reviews the first Azimuth report, titled "*Manston Airport: A National and Regional Aviation Asset, Volume I, Demand in the south east of the UK, March 2017*".

91. The first Azimuth report[37] aims to answer the following questions:

> *"Does the UK require additional airport capacity in order to meet its political, economic, and social aims?*
>
> *Should this additional capacity be located in the South East of England?*
>
> *Can Manston Airport, with investment from RiverOak, relieve pressure on the UK network and meet the requirement of a nationally significant infrastructure project?"*

92. Azimuth concludes that *"the answer to each of the above questions is overwhelmingly yes"*. However, the questions conflate different issues. The first two questions provide poor context for the third question, and are not relevant to RSP's proposals for Manston.

93. We agree that the UK needs additional airport capacity, and that it should be located in the South East of England. This is not surprising given that:

- In September 2012, the Government asked Howard Davies to chair an independent Commission to identify and recommend options to maintain the UK's position as Europe's most important aviation hub[38] ("the Airports Commission").
- The Airports Commission concluded that "*a new runway in the South East is needed by 2030*". It also "*concluded that the best answer is to expand Heathrow's runway capacity*" as "*Gatwick… is unlikely to provide as much of the type of capacity which is most urgently required: long-haul destinations in new markets. Heathrow can provide that capacity most easily and quickly. The benefits are significantly greater, for business passengers, freight operators and the broader economy*[39]".
- In October 2016, the Government announced that its preferred scheme to meet the need for new airport capacity in the South East was a Northwest runway at Heathrow. This was subsequently confirmed in its revised draft Airports National Policy Statement ("ANPS"), published in October 2017. The ANPS[40] stated that "*The Heathrow Northwest Runway scheme delivers the greatest support for freight. The plans for the scheme include a doubling of freight capacity at the airport*." The draft ANPS, once ratified by Parliament, will settle the "need" case for the Northwest runway at Heathrow, but no other form of airport development.

94. However, while we agree with the positive response to the first two questions, it does not automatically lead to a "yes" for the third question. The third question covers fundamentally different issues to the first two questions.

95. There are clear distinctions between different types of airport capacity. The Gatwick option would have provided more incremental runway movements than the recommended Heathrow option[41]. However, a key reason for recommending Heathrow was that *"It delivers more substantial economic and strategic benefits than any other shortlisted option, strengthening connectivity…*[42]*"*

[37] (Azimuth Associates, 2017 a, p. I)
[38] (Airports Commission, 2015, p. 37)
[39] (Airports Commission, 2015, p. 4)
[40] (Department for Transport, 2017b, p. 31)
[41] (Airports Commission, 2015, p. 238)
[42] (Airports Commission, 2015, p. 245)

96. RSP is promoting a reopened Manston Airport on the basis of providing capacity for dedicated freighter flights:

- Bellyhold freight comprises ca. 70% of UK freight (see Figure 4), a proportion that has been growing in recent years (see Figure 5). The Azimuth freight forecasts do not assume any bellyhold freight[43]. We agree with this Azimuth assumption, and consider that the development of bellyhold freight at Manston is extremely unlikely.
- Azimuth forecasts passenger traffic of ca. 1.4 million by the 20th year of operation[44]. We consider these forecasts to be optimistic. However, even taking these forecasts at face value, the passenger throughput would represent less than 1% of 2016 passenger traffic at London airports.

97. Therefore, rather than asking "*Can Manston Airport, with investment from RiverOak, relieve pressure on the UK network and meet the requirement of a nationally significant infrastructure project?*", more relevant, targeted questions would be:

- Considering planned airport expansions, will there be a need for further airport capacity in the UK for dedicated freighters?
- Will the South East in particular require additional capacity for dedicated freighters?
- Would a reopened Manston be well placed to effectively serve a significant proportion of the dedicated freighter market?
- Are there other potential airport options for new dedicated freighter capacity?

98. Over the course of this report, we address each of the sub-questions above in turn (an overview of our analysis is included in the Executive Summary).

3.2. Aviation Economic Contribution

99. Azimuth[45] refers to a study by the Centre for Economics and Business Research on the impact on trade of airport capacity shortages. Given the distinctions between different types of airport capacity[46], general references to the economic impacts of airport capacity shortages have limited relevance. More relevant is whether there is or will be a shortage of airport capacity for dedicated freighter aircraft. In Section 5, we address this issue directly.

100. On a similar basis, references to a European shortage of runway capacity[47] in Paragraph 2.2.2 are too general to be meaningful in the context of Manston Airport. Additional capacity can only contribute to alleviating shortages if it is the right type of capacity and in the right location.

3.3. RSP Vision for Manston Airport

101. The RSP vision for Manston Airport[48] also creates misconceptions. The Azimuth report states the vision is "*To revive Manston as a successful freight-focused airport*". This implies Manston was previously a successful freight airport. In analysing this, the following points are particularly relevant:

- Its throughput has never exceeded ca. 43,000 tonnes or more than 2.0% UK market share in a single year.
- The airport was also chronically loss making, with major operating losses each year from 2006 until its closure (period of data availability).

[43] (Azimuth Associates, 2017 c, p. 11)
[44] (Azimuth Associates, 2017 c, p. 16)
[45] (Azimuth Associates, 2017 a, p. 5)
[46] Passenger hub capacity, other hub capacity, freighter hub capacity, other freighter capacity, geographic location of capacity relative to demand etc.
[47] (Azimuth Associates, 2017 a, p. 5)
[48] (Azimuth Associates, 2017 a, p. 1)

- The historic volumes and financial performance clearly indicates that Manston Airport was not a viable financial proposition, despite considerable investment in freight capacity.

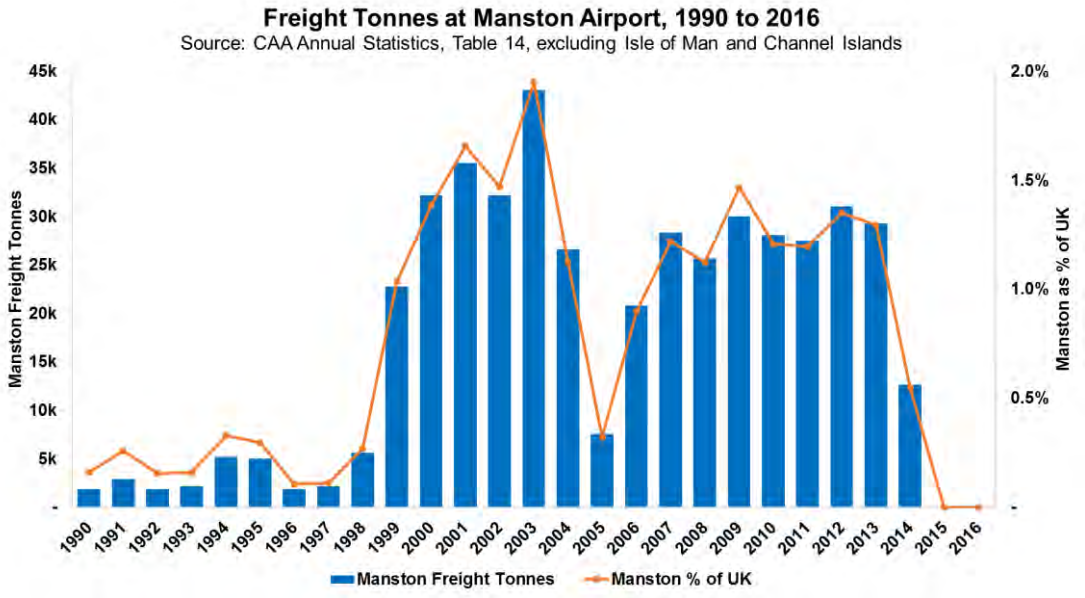


Figure 1 - Manston Airport Freight Tonnes 1990-2016

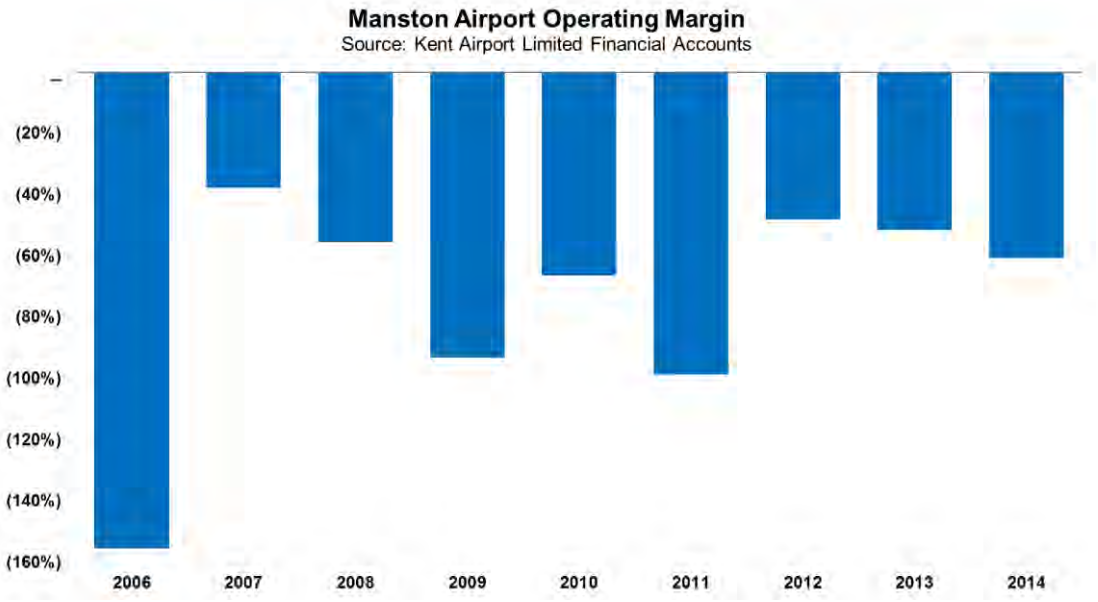


Figure 2 - Manston Airport Operating Margin (Operating Profit / Revenue) 2006-2014

102. As part of the RSP vision, it is stated that "*The only cargo hubs in the UK are East Midlands and Stansted airports, both of which focus on the integrator market. The UK needs a new hub for dedicated freighters, providing them with rapid turnaround times and the specialist security clearing ability that is currently absent at other UK airports.*"

- This description ignores Heathrow, which accounted for ca. 65% of all UK freight in 2016. It also implies, without foundation, that the focus on integrators at East Midlands and Stansted is incompatible with dedicated freighter provision.
- Furthermore, no evidence is presented to support the assertion that other UK airports are unable (either now or in the future) to support rapid turnaround times or possess specialist security clearing ability.

103. The reported vision also comments that "*The ideal location for this is close to the main market in the South East. RiverOak's long-term plan is to integrate Manston into the UK's airport network, effectively providing Heathrow with its fourth runway primarily dedicated to freighter cargo*."

- We highlight in paragraph 219 that the surface catchment area for freight is very wide, and there is no requirement for additional airport capacity for freight to be located in the South East specifically.
- The comment about Manston acting as a fourth runway for Heathrow is evidently untenable. Manston is ca. 100 miles from Heathrow, a similar distance as Birmingham Airport. Heathrow's existing two runways recorded ca. 473,000 air transport movements in 2016[49] (ca. 236,500 per runway), whereas Manston has never achieved more than 5,000 commercial air transport flights (passenger, cargo, air taxi combined) in a single year in the period since 2000.

[49] CAA Airport Statistics

4. Development of the UK Air Cargo Industry

4.1. Introduction

104. This section provides an overview of the development of the air cargo sector in the UK. The aim of this section is to highlight the key trends and the characteristics of the main airport players.

105. This analysis is then referenced in the following sections when considering the future outlook for the sector, and the role a reopened Manston could conceivably play.

4.2. UK Air Freight Development Since 1990

106. Since 1990, the UK air freight market can be divided into two distinct periods based on the growth trends seen. The period 1990-2000 was generally one of strong growth, with CAGR of 6.9% and positive annual growth in 9 of 10 years. In contrast, the period since then (2000-2016) has been one of stagnation (CAGR 0.2%, positive annual growth in only 8 of 16 years).

107. The 11th September terrorist attack in 2001, and the global financial crisis in 2008-09 coincided with particularly poor years for the UK air freight market.

108. In 2016, 2.4m tonnes of freight tonnes was handled at UK airports. This is the first year the previous 2004 peak was (slightly) exceeded.

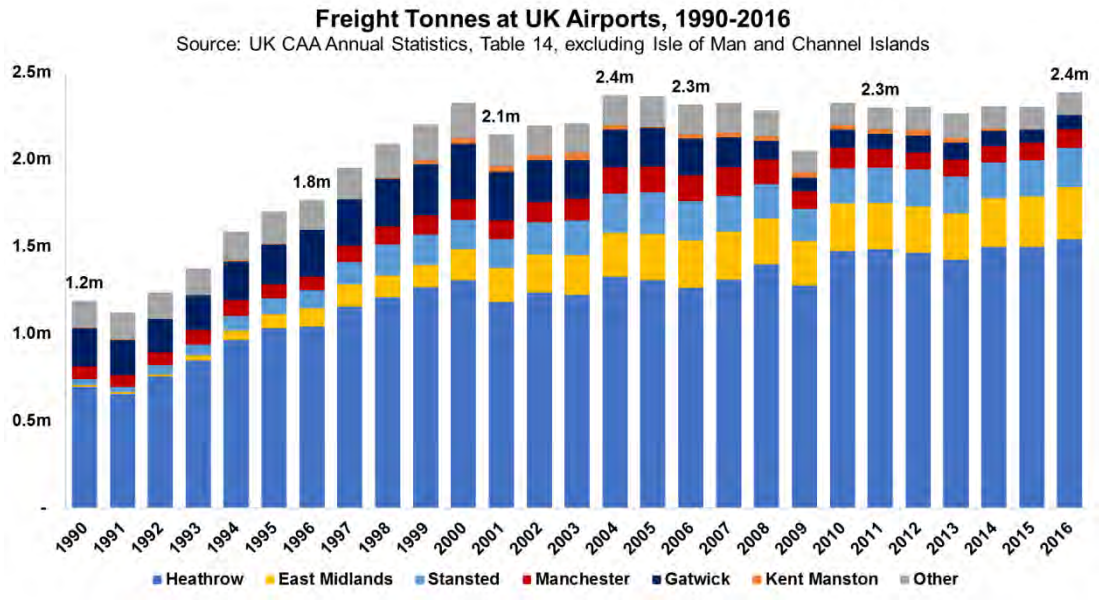


Figure 3 – Timeseries of UK freight tonnage

109. Heathrow is the airport in the UK that handles the most air freight. It has occupied this position through the entirety of the period 1990-2016. This is despite having constrained capacity (on the number of aircraft movements) through much of the period. In 2016 the airport achieved a market share of 64.6%.

110. East Midlands and Stansted are now the second and third largest airports for air freight in the UK. It has taken these airports 20+ years to reach this level, having grown from a very low market share in 1990. They had a 2016 market share of 12.6% and 9.4% respectively.

111. Manchester is the fourth largest UK airport for air freight. Note that it has grown very slowly, and continues to do so (1990-2016 CAGR of 1.6%, compared to 2.8% for UK airports excluding Manchester; 2011-2016 CAGR of 0.25%, compared to 0.77% for UK airports excluding Manchester).

112. In 2016 Gatwick was only the 5th largest UK air freight airport, having been clearly second-largest until ca. 2000.

113. Between them, these 5 airports accounted for ca. 95% of all UK air freight handled in 2016 (up from 87% in 1990).

114. Note that at no time in the period since 1990 has Manston played a significant part in the UK air freight market. Its share peaked at 2.0% in 2003, and in the 5 full years prior to its closure in 2014 (2009-13), it had an average share of 1.3%. The number of cargo ATMs only exceeded 1,000/year on a single occasion since 2000 (1,081 in 2003), averaging 462/year in the 2009-13 period (see Section 4.11).

4.3. UK Freighter versus Bellyhold Mix

115. At the top 5 airports in the UK, there are two distinctly different models of freight operation in place. At East Midlands and Stansted, virtually all freight is carried on cargo only aircraft (the low-cost carriers that operate passenger flights from these airports do not currently handle freight).

116. In contrast, at Heathrow, Manchester and Gatwick, less than 10% of freight is carried on cargo only aircraft (5.4%, 9.2% and 0.0% respectively).

- Overall, 29.7% of UK air freight in 2016 was carried on cargo only aircraft, with 70.3% carried in the bellyhold of passenger aircraft.

117. Despite Heathrow's low *proportion* of freight carried on cargo only aircraft, it continues to handle a significant share of the total UK freight carried on cargo aircraft[50].

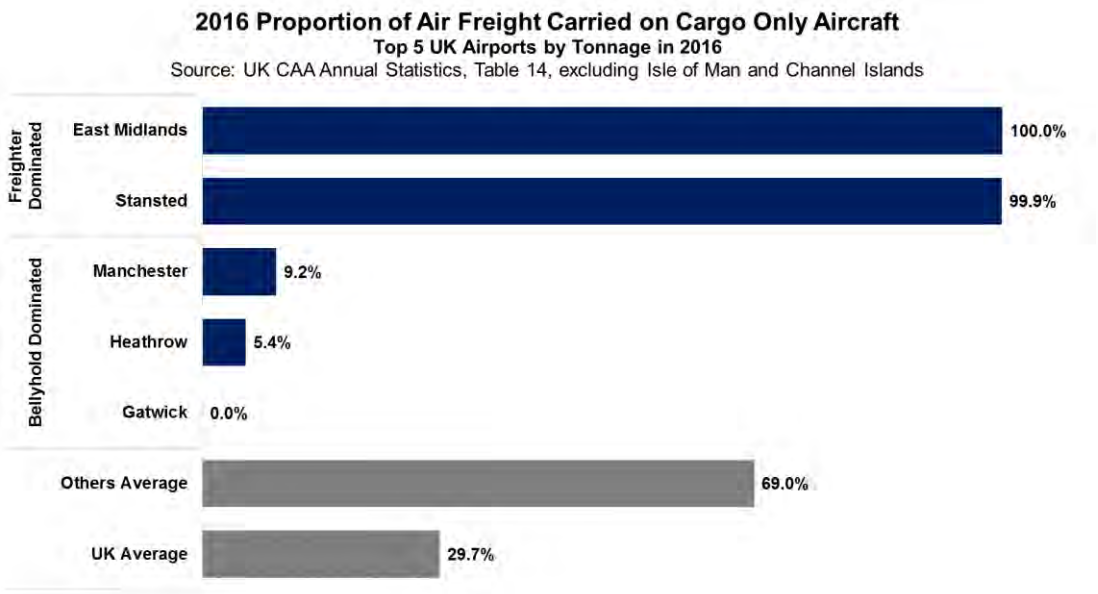


Figure 4 – Freighter/Bellyhold split at selected UK airports

[50] In 2016, Heathrow handled 12% of all UK freight carried on cargo only aircraft (a share it has broadly maintained since 2003).

118. Freight carried on all-cargo aircraft peaked in 2004, and has fallen significantly since while bellyhold freight has generally been growing. This is consistent with global trends highlighted in the appendix (Section 11.3) of this report.



Figure 5 – Split of UK air freight between bellyhold and dedicated freighter aircraft

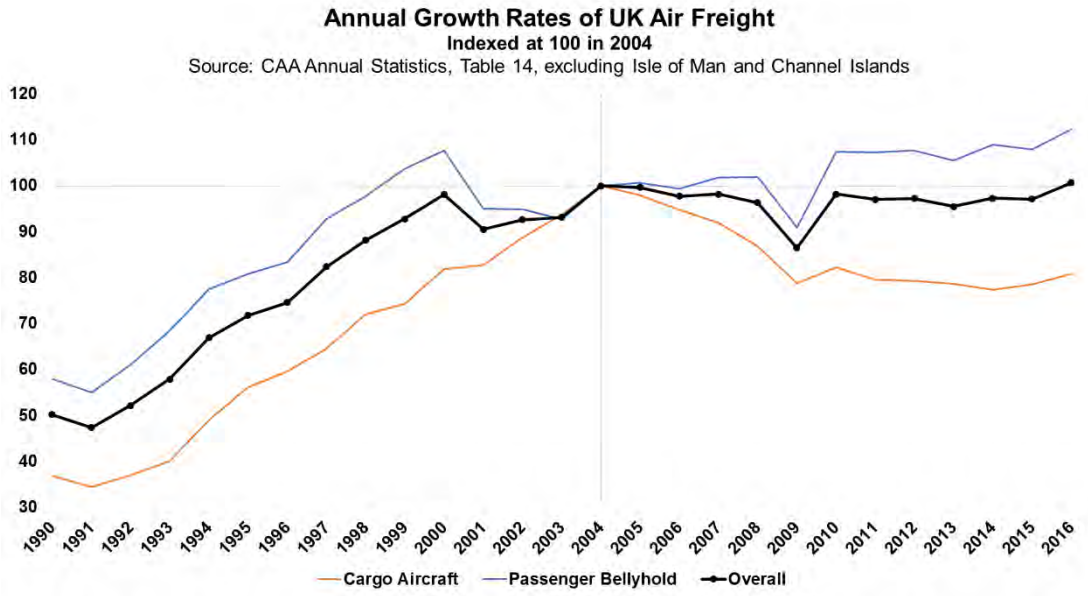


Figure 6 – Annual growth rates of UK freight

4.4. UK Freight on Cargo Only Aircraft

Airport Consolidation

119. In 1990, there were many UK airports from which carriers operated cargo only flights. Since then, there has been a very clear trend to consolidate cargo only operations at a few airports. In 2016, the three largest airports for freight (carried on cargo only aircraft) accounted for 86% of this UK market, up from 41% in 1990.

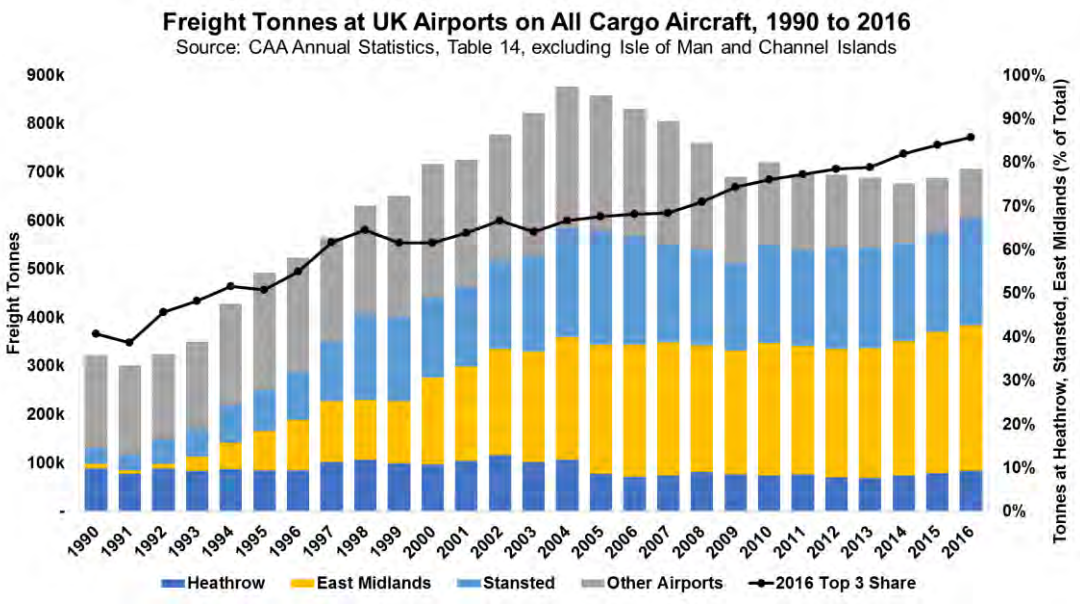


Figure 7 – Timeseries of UK freight on cargo-only aircraft

120. Historically, the following four airports have all been highly ranked in the UK for freight on cargo aircraft:

- Liverpool #5 in 1996 (peak tonnage in 1995, ca. 30,000 tonnes).
- Belfast International #4 in 2015 (ca. 38,000 tonnes in 2006).
- Prestwick #4 in 2001 (ca. 43,000 tonnes in 2001).
- Manston #4 in 2013 (ca. 43,000 tonnes in 2003).

121. However, by 2016 total freight on cargo aircraft across these airports was less than 20,000 tonnes (with Manston having shut completely).

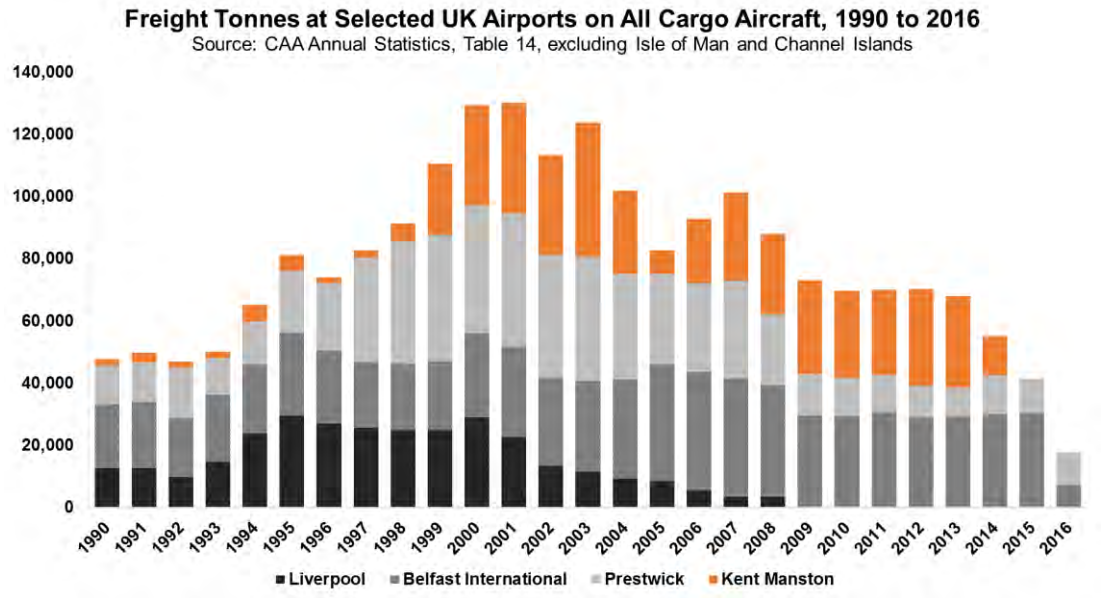


Figure 8 – Reduction of freight on cargo-only aircraft at selected airports

122. Note that none of the airports above has material capacity constraints. The trend towards consolidation of freight at a few airports is driven by cost efficiencies. It has resulted in airports which previously had significant freight volumes on all-cargo aircraft seeing their share of the market shrink/disappear.

123. In fact, of the 16 airports with more than 1,000 tonnes of freight on cargo aircraft in 1990, only 3 had higher equivalent freight volumes by 2016 (East Midlands: +290,000 tonnes, Stansted: +191,000, Luton: +4,000 tonnes, other 13 airports combined: -134,000 tonnes).

124. A similar trend can be seen when analysing the number of cargo aircraft movements; there is a sharp reduction in freighter flights from airports outside the "big three" of Heathrow, Stansted and East Midlands.

- Total freighter flights from other airports fell by almost 75% between 2000 and 2016 (from ca. 74,000 to ca. 19,000). Birmingham is the only significant cargo airport in this category that managed any meaningful growth in cargo ATMs (from 497 in 2000 to 1,184 in 2016).
- The number of freighter flights from the top 3 airports (Heathrow, East Midlands and Stansted) has varied relatively little over the same period.

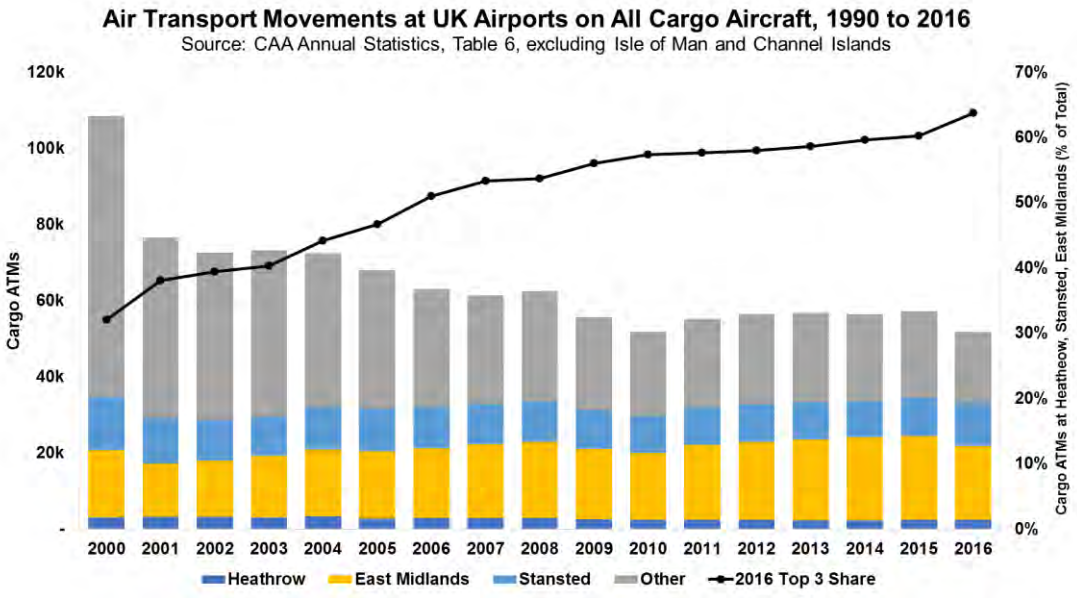


Figure 9 – Consolidation of freight on cargo-only aircraft at Heathrow, East Midlands and Stansted

125. Note that the decline in freighter movements has generally occurred at airports with limited infrastructure constraints. This indicates that airport capacity issues are not the main driver for the reduction in freighter flights at UK airports.

126. The Azimuth cargo ATM forecasts for Manston exceed 17,000 by year 20 (see Figure 25). This forecast should be seen in the following context:

- The most recent (2017) Department for Transport forecasts to 2050 assume the number of freighter flights in the UK will remain flat at 2016 levels[51].
- The Manston cargo ATM forecast is equivalent to 33% of the 2016 UK cargo ATM total, and over 80% of 2016 UK cargo ATMs if the two dedicated freighter hubs (East Midlands and Stansted) are excluded.
- After East Midlands and Stansted, Edinburgh is the next largest UK airport in terms of cargo ATMs, with 5,195 flights in 2016 (less than one-third of the projected Manston level in year 20).
- Since 2001, East Midlands and Stansted are the only UK airports to surpass 10,000 cargo ATMS in any single year.

[51] (Department for Transport, 2017a, p. 33)

Cargo-only Growth at a Regional Level

127. The change over time in the volume of freight carried on cargo only aircraft differs significantly by UK region. This is at least partially due to the locations of the larger airports at which freight has tended to consolidate since 2003.

128. For example, freight on dedicated cargo aircraft has grown substantially in the Midlands region, where East Midlands Airport has steadily developed into a major base for cargo only operations (in particular, express cargo). In contrast, freight on dedicated cargo aircraft has fallen in recent years in both the South East & East of England region and the Other UK regions.

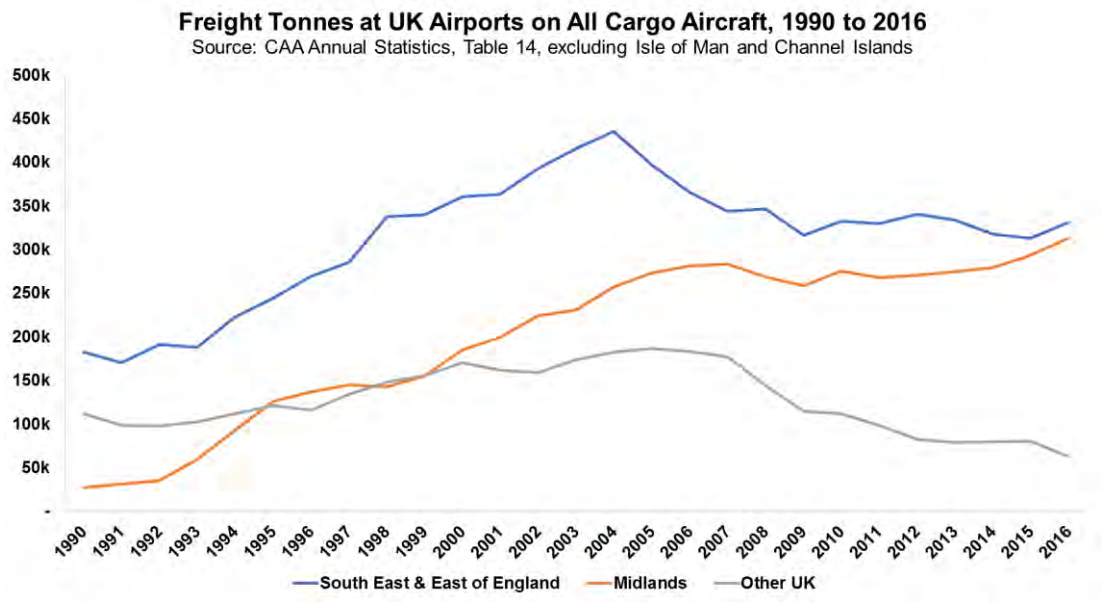


Figure 10 – Breakdown of UK freight on cargo-only aircraft, by region.

129. This reduction in freight on dedicated cargo aircraft in the South East & East region is sometimes attributed to shortage of suitable airport capacity. However, this does not explain the similar decline seen in the Other UK regions. Nor does it explain why this decline has not continued at the South East & East of England region airports through the period 2009-16 (through which the same constraints existed, and the decline continued at Other UK regional airports).

4.5. UK Bellyhold Freight

130. Heathrow handled 87% of all UK bellyhold freight in 2016. Manchester and Gatwick are the only other airports with significant bellyhold freight; in 2016, they had bellyhold market share of 5.9% and 4.7% respectively. These three airports have been the largest three airports for bellyhold freight since 1990, and have held a bellyhold market share of 96-98% over this period.

131. Heathrow dominates this segment as a result of its extensive long-haul network operated by wide body aircraft, which have significant cargo capacity. Freight tonnage on passenger aircraft has continued to grow at Heathrow (CAGR 2006-16 2.0%) despite the airport effectively operating at full runway capacity.

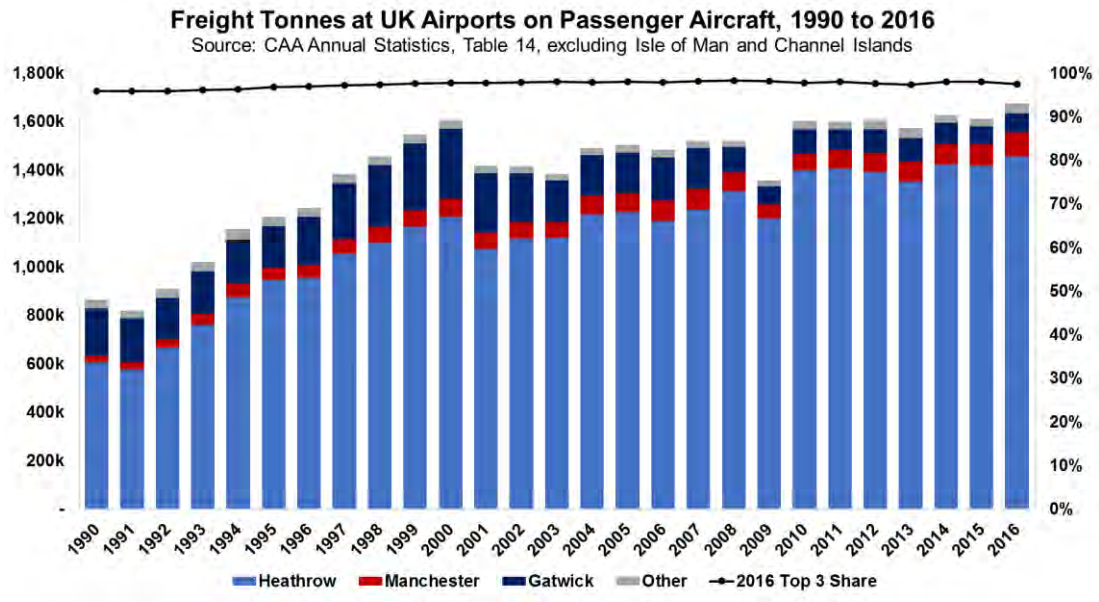


Figure 11 - Timeseries of UK freight on passenger aircraft

4.6. UK Air Mail

132. Mail is a relatively minor component of overall UK air cargo (ca. 200,000 tonnes in 2016 compared to 2.4m tonnes of air freight). For completeness, we include a brief overview of the UK air mail sector.

133. While volumes have fluctuated year on year, there has been no sign of sustained growth since the turn of the century (consistent with the widespread adoption of electronic communications).

134. As with air freight, air mail is concentrated on a small number of airports (Heathrow, East Midlands, Stansted, Edinburgh), with similar consolidation trends. Royal Mail has focussed on a small number of airports for night mail flights.

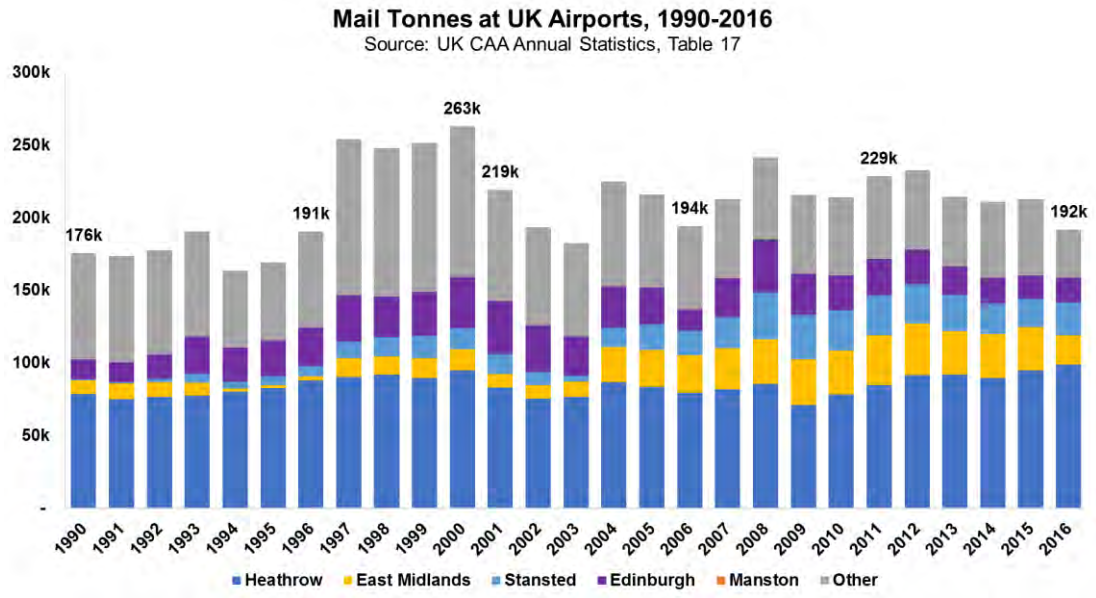


Figure 12 – Timeseries of UK Mail tonnage

4.7. Heathrow

135. As previously noted, Heathrow is the largest freight airport in the UK by some margin (as well as the largest passenger airport and only major passenger hub). It dominates the UK bellyhold segment and has a significant share of UK freight carried on dedicated freighters[52].

136. Despite operating very close to its air transport movement (ATM) limit for a number of years, Heathrow has managed to grow the volume of freight it handles faster than the overall UK market. It has had a higher annual growth rate than the average of other airports in the UK in 7 of 11 years over the period 2006-16, and also has a higher CAGR over that period (+2.0% compared to -2.2% at other UK airports).

137. It is likely that Heathrow cargo capacity has also been increasing through the adjustment of its mix of aircraft. There are two aspects to this:

- An increase in the proportion of ATMs allocated to widebody long haul flights, instead of narrow-body short-haul flights;
- The tendency for new long haul aircraft types (with the notable exception of the A380) to have more space for cargo than previous models.

138. We analyse each of the above factors in turn in the following paragraphs.

Widebody Share of Overall Flights

139. Data from OAG shows that the widebody share of Heathrow annual ATMs has risen from 34.0% in 2007 to 38.8% in 2017. Only two years in the ten-year period 2007-17 have seen this proportion fall. The airport stated in 2016 that "*fleet size at Heathrow has not fully matured and there is further potential to upsize / densify*"[53].

Cargo Capacity for Newer Aircraft Types

140. In general, older aircraft types have a lower cargo capacity than their newer equivalents. Of the older aircraft, the B747-400 is the most common in the UK. Likely replacements for this aircraft all have significantly higher cargo volume (given the payload available, volume is likely to be the constraining factor in the majority of markets to/from the UK). For example, the B777-9X has indicative cargo capacity of 109m^3 compared to just 71m^3 for the B747-400.

141. Further, industry sources reinforce the view that newer aircraft have a beneficial impact on cargo capacity. For example, American Airlines has commented:

> *"The introduction of the 787-9 brings another more fuel-efficient aircraft type with even greater cargo capacity into the American Airlines fleet…. On routes where we operate the aircraft, our cargo customers will see notable capacity improvements"*[54]

142. An exception to the trend for newer aircraft to have more cargo capacity is the A380, which has less cargo capacity than a B747. However, there are no indications that there will be any material increase in the prevalence of this aircraft in the UK[55].

143. Further analysis is provided in the appendices (see Section 13.1).

[52] The number of cargo ATMs operated at Heathrow is fairly low (ca. 2,500 in 2016) but average loads are high.
[53] (Heathrow Airport, 2016a, p. 8)
[54] (Vance, 2016)
[55] See Section 13.2 in appendix

144. The following charts, based on UK CAA data, shows that Heathrow has generally been successful at increasing its average freight tonnage per ATM, helping to maintain growth despite operating near its ATM limit.

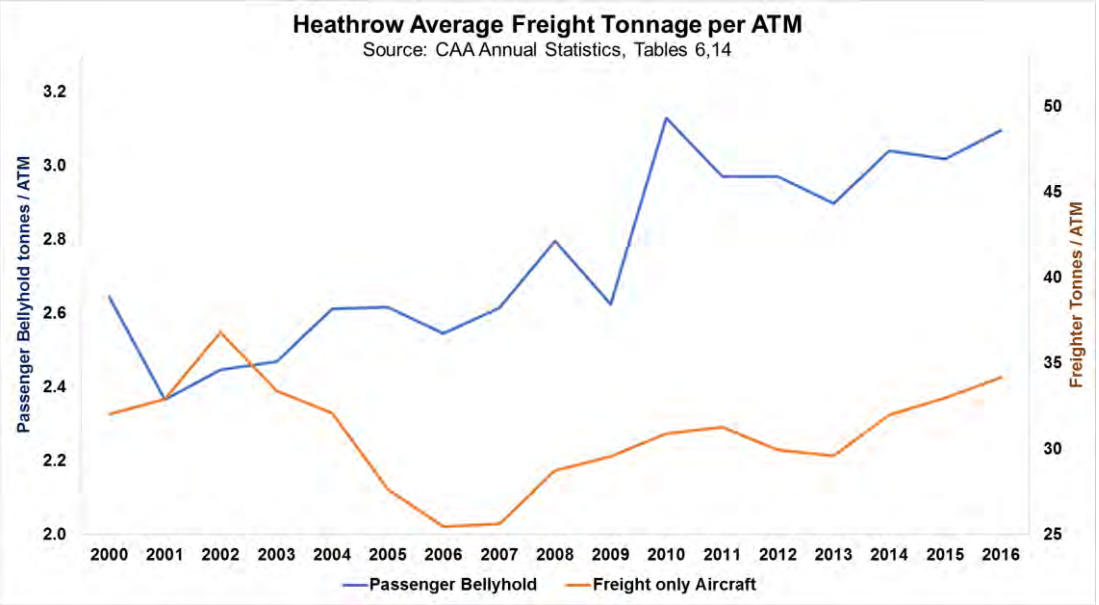


Figure 13 – Change over time of average tonnage per ATM at Heathrow

4.8. East Midlands

145. East Midlands Airport has a significant freighter operation. Since 2000, it has been the largest airport in the UK for cargo-only operations by tonnage handled (circa 300,000 tonnes of freight and ca. 20,000 tonnes of mail in 2016). The number of cargo ATMs in 2016 was ca. 19,000.

146. Almost all the freight handled by the airport is carried on cargo-only aircraft[56]. Bellyhold freight represents a tiny minority of tonnage at the airport, as most passenger flights are operated by low-cost carriers, which do not currently carry freight.

147. The type of freight handled at East Midlands Airport is predominately express cargo, a sector of the air freight market that has shown strong growth over the past decade. East Midlands is also a significant mail handling airport in the UK[57]. The airport states:

> *"DHL is the largest operator with services to key hubs in the USA and in Europe. UPS also link to their hubs in the USA and Europe and TNT have a smaller operation with a link to Europe"*[56]

148. Several of these integrators have invested significantly in operations at East Midlands Airport. For example, DHL invested £90m on infrastructure at East Midlands Airport in 2014[58].

149. The appeal of East Midlands Airport to the integrators is linked to the airport's location in the centre of England, where it is well placed to serve the whole of the UK. The ability to operate night flights is a key advantage. The airport states:

> *"The express freight operators provide an international next-day delivery service. This relies on the excellent surface access connectivity (90% of England and Wales is within a 4*

[56] (East Midlands Airport, 2015, p. 57)
[57] (East Midlands Airport, 2015, p. 16)
[58] (DHL, 2014)

hour (55mph) truck drive away from East Midlands Airport) along with the ability to operate aircraft at night"[57]

150. For express freight in particular, it is important to minimise trucking time between the shipper/consignee and the airport. As such, the location of an airport relative to warehouse locations is important. The map below highlights locations of large warehouse facilities in the UK[59]. A large number are seen to be near to East Midlands Airport, or on the motorway network with quick access to East Midlands Airport.

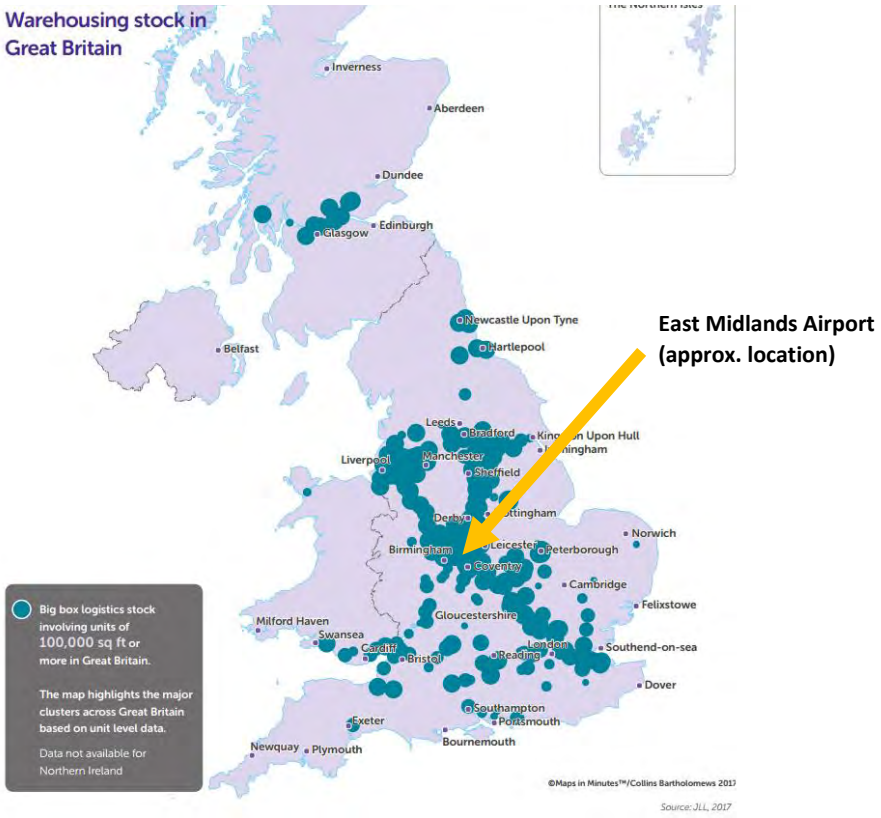


Figure 14 – Locations of large warehousing units in the UK, Source: Freight Transport Association

151. Regarding accessibility of the airport, East Midlands Airport states:

"There are in the region of 500 HGV movements to and from East Midlands Airport every day. However because of the nature of the freight hubs at East Midlands Airport, with pure-freight aircraft flying overnight, the vast majority of these vehicle movements take place very late at night (normally after 9pm) and very early in the morning (between 2am and 5am) and as such have no impact on peak motorway traffic levels"[57]

152. This pattern of utilisation fits with the airport's traffic being weighted heavily toward express freight. By implication, we can say that the vast majority of truck movements to/from East Midlands are not impacted by peak motorway traffic levels (as they are not using the motorway network at these times).

153. The "*East Midlands Gateway*", a project consisting of new warehousing and a rail freight station, is currently in development at a site next to East Midlands Airport. It is planned that the first warehouses will be occupied by September 2018. Construction of the rail station is due to begin after December 2019[60].

[59] (Freight Transport Association, 2017, p. 74)
[60] http://slp-emg.com/wp-content/uploads/2017/05/New-branding-A3.pdf

154. The importance of night flights to express freight has been stated before in this document, and is emphasised again by the breakdown of East Midlands ATMs, showing that ca. 64% of cargo ATMs in 2014 were at night (17,029 of 26,681)[61].

4.9. Stansted

155. Stansted has developed to become the main airport in South East & East region for freight on all cargo aircraft. It handled ca. 223,000 tonnes of freight in 2016, with further ca. 23,000 tonnes of mail (the number of cargo ATMs in 2016 was ca. 11,000). Amongst the London airports, it handled the highest volume of dedicated freighter traffic, and was also "*the most significant hub for express freight"*[62].

156. On express freight, the airport adds: *"The airport's express freight market, anchored by key operators such as FedEx and UPS, is the second biggest in the UK"*[62] (behind East Midlands Airport). TNT and around ten other companies also operate weekly services from the airport.

4.10. Others (excluding Manston)

157. Other airports that are significant for freight in the UK are Manchester, Gatwick and Birmingham. Together with the three airports discussed above, they accounted for 96% of UK air freight (by tonnage) in 2016. As an airport in the south of the country, Gatwick is worthy of more detailed examination.

Gatwick

158. In 2016, Gatwick handled 3% of the UK's air freight (ca. 80,000 tonnes). This was all in the bellyhold of passenger aircraft. However, it has previously had a share of the UK market as large as 18.5% (in 1990).

159. The proportion of Gatwick freight carried on cargo-only aircraft was between 6% and 25% over 1990-2006. In 2007, freighter share at Gatwick dropped to 1.4%, before falling close to 0% from 2012 onwards.

160. In 2008, a revised air traffic rights agreement between the UK and the USA meant that a significant number of long-haul UK-US operations switched from Gatwick to Heathrow. The loss of widebody capacity at Gatwick saw bellyhold freight fall by ca. 40% in 2008. It remained around the 2008 level in 2016.

161. Gatwick is operating reasonably close to its ATM capacity. This limits the growth potential for freight through additional passenger or freighter flights.

162. As of 2017, fewer than 10% of existing ATMs at Gatwick are used by widebody aircraft[63]. Thus, there is significant scope for Gatwick to increase its cargo capacity by increasing the share of widebody aircraft using the airport. To some extent this will happen naturally as passenger demand increases. Widebody share has risen in every year since 2014 (from 7.3% in 2014, to 9.4% in 2017[63]).

163. On routes where widebody capacity is in place at Gatwick, there is every indication that demand for freight is at least as strong as its closest competitor Heathrow; Gatwick Airport cites examples such as Emirates, Continental and Delta achieving *higher* freight tonnage per ATM at Gatwick than at Heathrow[64].

164. Freight volumes at Gatwick have grown strongly in 2016 and 2017 so far. This is driven by the rapid expansion of long haul routes by a number of airlines, including Norwegian, British Airways, Cathay Pacific and WestJet. We would expect this trend to continue as more slots are deployed for long haul flights, increasing bellyhold freight capacity.

[61] (East Midlands Airport, 2015, p. 111)
[62] (Stansted Airport, 2015b, p. 6)
[63] (OAG)
[64] (Gatwick Airport, 2015)

4.11. Manston

Historic Freight

165. Freight at Manston has accounted for an average of 0.8% of the UK total in the period 1990-2014 (prior to closure). Its peak share of the UK market occurred in 2003, when it reached 2.0%.

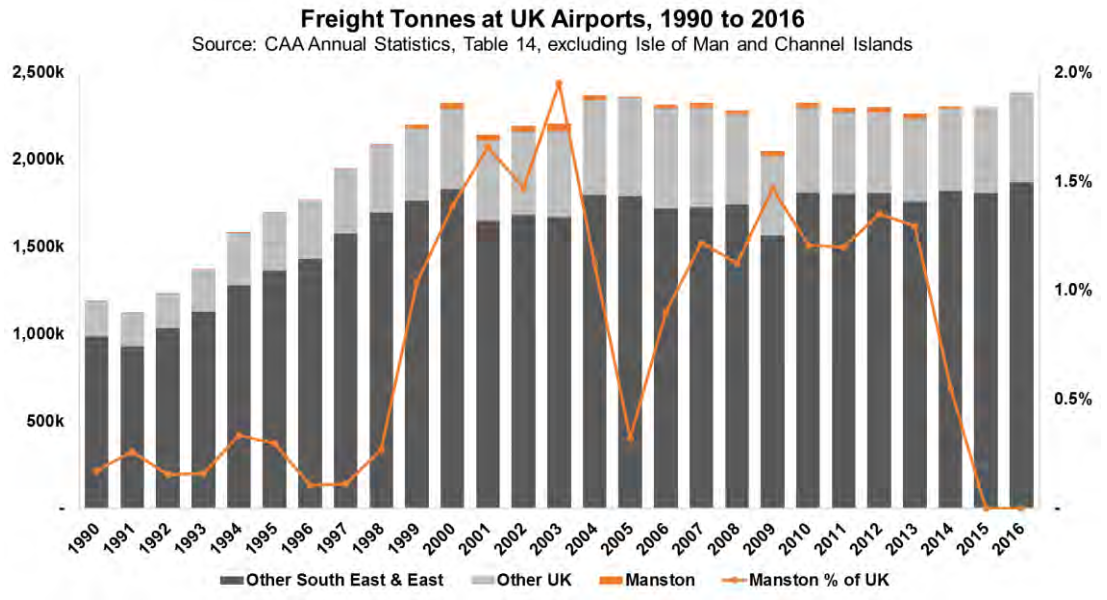


Figure 15 – Timeseries of UK freight, including that handled at Manston

166. The total number of cargo air transport movements at Manston averaged ca. 550 per year in the period 2000-14. This is equivalent to less than one aircraft rotation per day on average (peak year in 2003 was 1.5 rotations per day). Manston's share of UK cargo ATMs briefly peaked at 1.5% in 2003. In every year since 2005, Manston cargo ATMs have accounted for less than 1% of the UK total.

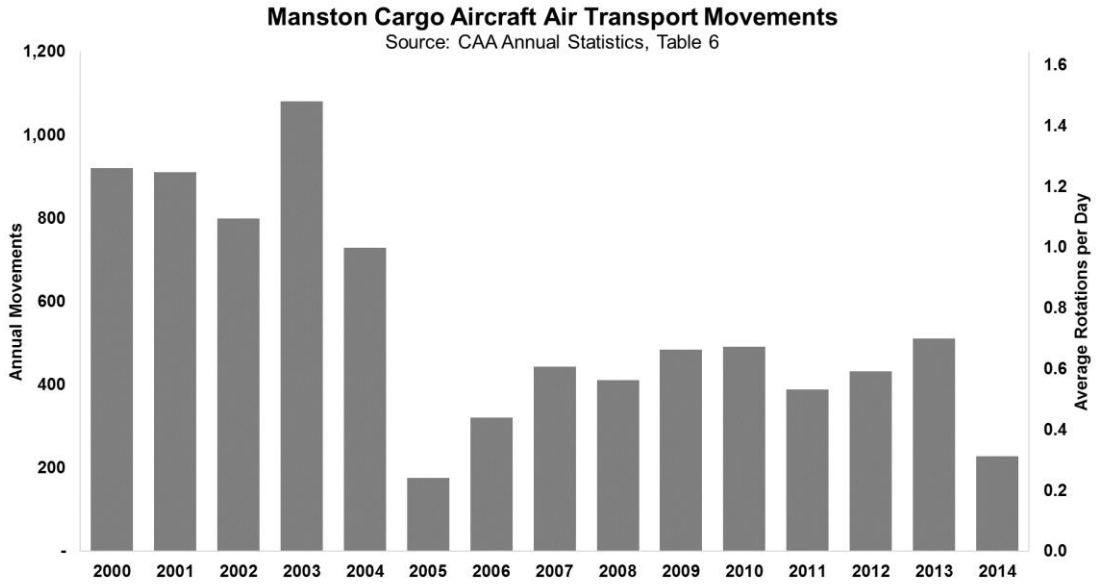


Figure 16 – Manston cargo-only aircraft movements

167. The hypothesis has been put forward that Manston previously was unsuccessful as it lacked the infrastructure to handle additional flights. However, with a peak of 1.5 rotations[65] per day, it seems certain that higher numbers of flights per day could have been handled if market demand was there.

168. As noted previously, the previous owners invested £7m on new aprons and taxiways, increasing the freight capacity to 200,000 tonnes[66]

Competitiveness of a Reopened Manston

169. Were Manston airport to be re-opened at some point in the future, it would likely be competing directly with East Midlands and Stansted for cargo-only flights. The outlook for the airport in this scenario is poor.

170. Firstly, the location of Manston on a peninsula physically limits the size of its catchment area.

- Within a 3 hour drive, only the South East & East of England, and a small part of the Midlands, are accessible.
- In comparison, most of England and Wales can be accessed within 3 hours of East Midlands Airport, while Manston's catchment is essentially a sub-set of the Stansted catchment.
- The case studies of Liege and Leipzig (Section 12), as well as the strong growth of freight at East Midlands, indicate the importance of a large catchment area and central location. While these airports attract cargo from an extensive area, they also benefit from strong cargo demand within their immediate catchment.

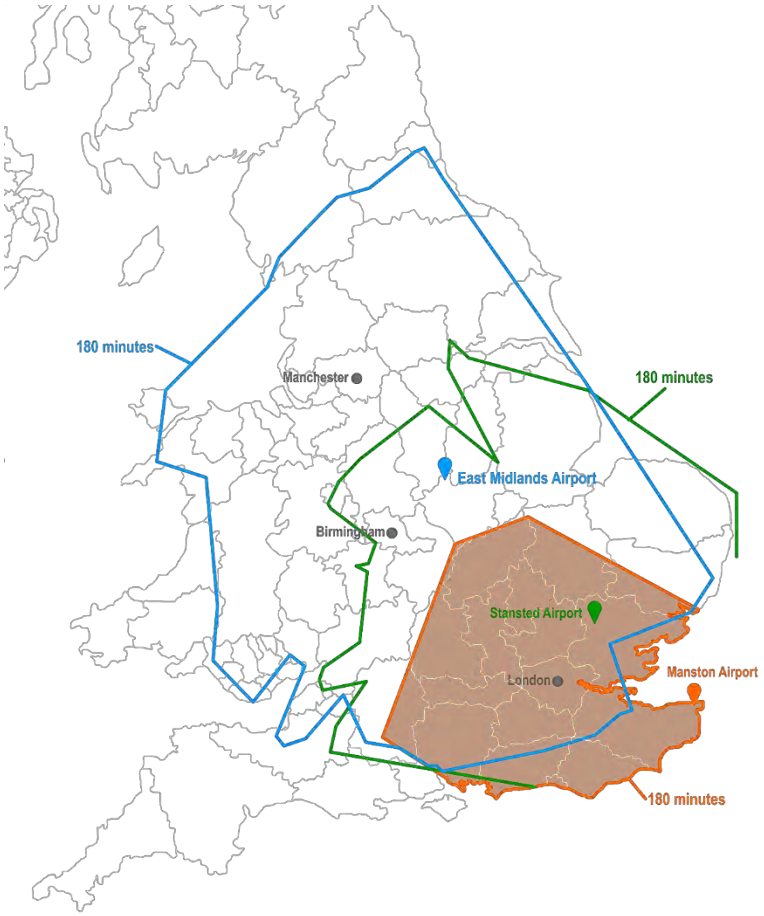


Figure 17 – 3-hr catchment region of Manston in comparison with those of East Midlands and Stansted
Source: Altitude analysis, Google Maps (truck speed set at 55 miles per hour)

[65] A rotation is an aircraft turnaround at an airport, representing an arrival and a departure flight.
[66] (Wiggins Group plc, 2002, p. 16)

171. In addition to Manston's poor geographic location, it is also relatively far from important transport infrastructure. The motorway network is not especially close (the airport is ca. 22 miles from the M2 and 38 miles from the M20). Successful freight airports in the UK and Europe are extremely close to the national motorway network, helping to minimise the shipper/consignee to airport transport time.

172. Secondly, there is consensus in the air freight industry that the ability to handle night flights is critical for many types of air freight (in particular for express freight, but also for other types of freight).

- East Midlands and Stansted are both able to accommodate flights 24 hours per day.
- Both Liege Airport and Leipzig Airport cite the ability to accept night flights, and the support of local government in doing so, as factors in their success (see appendices, Section 12).

173. It is unclear (in the light of historic restrictions) whether or not night flights would be allowed at Manston Airport were it to reopen. However, it does seem clear that restrictions on night flying would have severe limitations for air freight potential at the airport. Observations at other freight hubs such as East Midlands, a significant volume of freight activity takes place during night time hours, including onward (or inward) road haulage taking advantage of road capacity overnight to move freight outside of peak traffic periods. Manston's local road network is not ideally placed to accommodate large volumes of HGV traffic arriving in quiet hours

174. Finally, as noted previously, there is a clear move towards market consolidation of freight activity at a few large airports. In order to be successful, Manston would need to reverse this well-established trend. It is not apparent how this could be achieved, even with markedly lower airport charges (which in turn would compromise the financial viability of the airport).

175. Therefore, even if there was a future need for additional airport capacity for freighter activity, Manston is poorly placed to service such a requirement and better existing operational alternatives are available.

5. Current Freight Demand vs Supply at UK Airports

5.1. Context

176. Azimuth asserts that UK air freight has been constrained since 2000[67]. Furthermore, Azimuth concludes that shortage of airport capacity is leading to more trucking of freight ("*flying freight from Manston, negating the need to truck, to and from European airports for air transportation*[68]").

177. We consider that these conclusions are highly simplistic. They do not recognise the operational needs and behaviours that underpin the freight market:

- As discussed below, we agree there is a shortage of dedicated freighter capacity at the UK's main passenger hub airport (Heathrow). However, freighter capacity is available at other airports. For example, both Stansted and East Midlands have expanded freighter activity significantly since 2000, and continue to have spare capacity.
- Therefore, any shortage of air freight capacity in the UK relates specifically to Heathrow capacity rather than a more general lack of capacity.
- Trucking is a highly integrated component of the air freight business model, and not merely a substitute for air freighter flights when airport capacity is constrained. The increasing use of truck feeder services (see Figure 32) is due to cost efficiencies and is not restricted to the UK. We see no evidence that the growth in trucking is primarily driven by lack of Heathrow capacity for air freighter flights.
- In any case, even if there were significant levels of trucking caused by constraints at Heathrow, this would only be reduced by the provision of more Heathrow runway capacity. As there is already spare capacity at other airports in the UK, provision of further capacity would not make any significant difference to trucking levels. There is no reason why economic decisions to truck freight rather than fly would change in the absence of new Heathrow capacity.

178. In the remainder of this section of our report, we provide an analysis of current UK airport capacity for freight, and whether this has constrained demand. In the following section (Section 6), we investigate the outlook for future airport capacity for freight at UK airports.

5.2. Literature Review

179. As noted above (see paragraph 176), Azimuth asserts that UK air freight has been constrained since 2000. Its case for Manston relies heavily on this assertion, yet no evidentially supported and reasoned justification is provided. Three references are provided.

180. The first document cited is the Air Transport White Paper from the Department for Transport[69]. We have not found references to air freight being constrained in this document, which in any case dates from 2003.

181. The second document is by Oxford Economics[70]. This report is a technical note which examines how increased airport capacity (or conversely the lack of additional new capacity) could affect air freight and the economy. The study was undertaken for Transport for London / Mayor of London, promoters of the new Thames Estuary hub airport scheme.

[67] (Azimuth Associates, 2017 a, p. 8)
[68] (Azimuth Associates, 2017 a, p. 19)
[69] (Department for Transport, 2003)
[70] (Oxford Economics, 2013)

182. References in the Oxford Economics report to existing capacity constraints focus on Heathrow, and its forward-looking analysis is primarily in the context of the potential benefits of the proposed new hub airport. For example, on Page 8:

> *"Capacity constraints at Heathrow, however, set in as early as 2005 and future cargo growth is threatened by the inability of London area airports to keep up with demand. A new hub airport for London, with enough capacity to meet demand for the next 30 to 40 years, would be particularly important for the growth of bellyhold cargo."*

183. The Oxford Economics report also notes the divergent trends between short haul and long haul cargo in the UK. On Page 14, the factors that could explain the decline in short haul air cargo are explored.

> *"In all likelihood, short-haul cargo may have fallen due to both capacity constraints at Heathrow and freight forwarders substituting road or rail transport for short-haul destinations. In addition, the cost of air cargo is higher on short-haul routes because a larger portion of the trip is spent on the ground and more time in the air is spent climbing and descending. Lastly, the lack of widebody planes on short-haul journeys make bellyhold cargo less attractive at those distances to begin with."*

184. On Page 16, the Oxford Economics report goes on to state:

> *"The fact that volumes have fallen so dramatically could be due to both capacity constraints at Heathrow and also to the substitution of air cargo on short-haul distances with rail or truck transport. Which phenomenon is more important? The opening of the Channel Tunnel in 1994 between the UK and France has made it faster and cheaper to transport cargo by road between continental Europe and the UK. In terms of truck transport, it is estimated that 97,000 tonnes of air freight actually crosses the English Channel by truck per year, as compared to 87,000 tonnes flown on bellyhold. In fact, the volume of short-haul cargo peaked around the time the Channel Tunnel opened and has declined ever since. Therefore, this hints that much of the decrease in short-haul volumes may be due to the relatively lower cost of truck transport to continental Europe rather than capacity constraints at London area airports. In other words, the generalised cost of surface transport (relative to air transport) has decreased, spurring a modal shift on short-haul routes."*

185. The final reference is to rankings of European Union countries for the quality of air transport infrastructure[71]. This appears to relate to overall air transport infrastructure, and is not specific to freight. In any case, the UK is ranked reasonably highly in the most recent results (#7 out of 28 EU countries for 2015/16).

186. To summarise, the three studies quoted by Azimuth do not provide any meaningful support for the assertion that UK airport capacity for freight has been constrained for many years. The Oxford Economics study identifies constraints at Heathrow and hub capacity specifically but also highlights other factors for recent freight trends. The 2003 Air Transport White Paper and the European Union infrastructure ranking study do not address the issue directly.

187. In the next subsection of our report, we show that there is no overall shortage in UK airport capacity for dedicated freighter operations (the type of capacity a reopened Manston would potentially provide as identified by RSP).

188. In paragraph 235, as part of our review of the Azimuth forecasts for Manston, we highlight how results from a York Aviation study have been applied incorrectly.

[71] https://ec.europa.eu/transport/facts-fundings/scoreboard/compare/investments-infrastructure/quality-airports-infrastructure_en#2015-2016

5.3. Analysis of Current Freight Demand vs Supply at UK Airports

189. There is no overall shortage in UK airport capacity for dedicated freighter operations. Both of the two largest airports, East Midlands and Stansted, can accommodate more freighter services than currently operating (sufficient to meet demand). Many other airports in the UK have spare capacity for freighter services.

190. In this sub-section of our report, we examine the current freight capacity at UK airports. In the following section (Section 6), we analyse future UK airport freight capacity.

East Midlands Airport

191. East Midlands Airport does not require slot coordination[72]. It is designated as a Level 2 airport, with the UK slot coordinator (Airport Coordination Limited) only providing data collection services[73]. IATA[74] defines a Level 2 airport as one "*where there is potential for congestion during some periods of the day, week or season, which can be resolved by schedule adjustments mutually agreed between the airlines and facilitator*". In other words, the airport cannot be considered as facing significant capacity constraints.

192. The airport does not appear to have any limit on the number of overnight ATMs it can operate. Note that it *does* have limits on the amount of noise any given aircraft can make at night. There is a limit on the land area that is exposed to noise above a certain threshold, as well as a rule preventing operation of the noisiest aircraft types between 23:00 and 07:00 (as per many other UK airports including Heathrow, Gatwick, Stansted).

193. The airport appears to have established a common position with the local authority which supports operation of the airport. For example:

> *"The Council will provide for the operational growth of East Midlands Airport whilst having regard to its impact on local communities and the wider environment…. Noise-sensitive development, particularly housing, will be resisted where it can be demonstrated that the noise levels associated with the airport would be detrimental to the occupiers or users of any such development"*[75]

194. The airport's runway[76] is long enough to handle the typical large cargo aircraft flying today, including the B747-400, B747-8F and the AN-225. It can also handle the A380, which could be relevant if older examples of that model are converted to a cargo aircraft in future[77].

Stansted Airport

195. Stansted is designated as a Level 3 coordinated airport. A process of slot allocation is required whereby it is necessary for all airlines to have a slot allocated by a coordinator. Therefore, Stansted is facing some capacity constraints in peak periods.

196. Nevertheless, there remains significant capacity available at most times of day, as shown below for the Summer 2017 scheduling season.

[72] Allocation of airport "slots" to airlines by an independent body. A slot provides permission for an airline to arrive or depart an airport for a specific time at a specific weekday and for a specific period applied for.
[73] https://www.acl-uk.org/faqs/
[74] (IATA, 2017c, p. 22)
[75] (East Midlands Airport, 2015, p. 69)
[76] East Midlands Airport runway length is 2,893m, compared to ca. 2,750m for Manston Airport.
[77] (East Midlands Airport, 2015, p. 73)

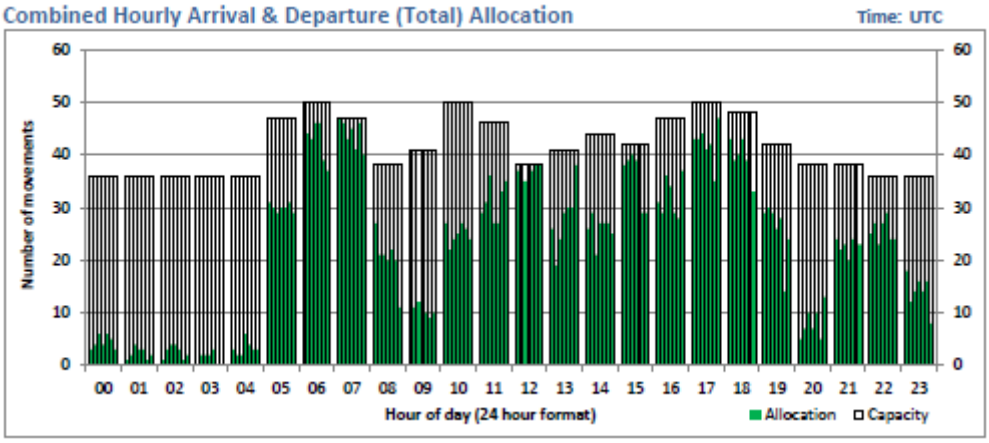


Figure 18 - Peak Week, Hourly Runway Allocation, Stansted Airport, Summer 2017. Source Airport Coordination Limited[78]

197. The number of cargo ATMs grew by ca. 13% in 2016 (source: Altitude analysis of CAA data), indicating that capacity constraints are not severe for freighters.

198. The airport is more tightly regulated than East Midlands Airport. Stansted's annual number of ATMs is limited. Currently, these limits stand at 243,500 passenger aircraft ATMs and 20,500 cargo aircraft ATMs[79]. These limits compare to 2016 movements of ca. 153,000 passenger ATMs and ca. 11,000 cargo ATMs. The airport considers the ultimate capacity of the runway to be 285,000 ATMs[80].

199. Separately, there is a quota on the overall number of ATMs allowed between the hours of 23:30-06:00 (7,000 ATMs in the summer season and 5,000 in the winter season). In 2013, the airport reports there were ca. 9,300 night ATMs in total, and that cargo aircraft ATMs take up a "*sizeable proportion*" of the quota[80].

Heathrow Airport

200. The UK does lack available dedicated freighter capacity at its only major passenger hub airport, Heathrow.

- Heathrow is also the UK's largest freight airport with ca. 65% of the UK's overall throughput (see paragraph 109).

201. Freight forwarder activity has consolidated around Heathrow on the strength of its extensive network of long haul passenger services. These services, typically using widebody aircraft, provide substantial bellyhold cargo capacity to a wide range of destinations.

202. At Heathrow, only ca. 5% of freight is carried on dedicated freighters (see Figure 4).

- If more capacity for freighter services existed at Heathrow, we would anticipate much greater levels of dedicated freighter activity.
- In the absence of operating constraints, major passenger hubs tend to also play a role as key dedicated freighter hubs (e.g. Frankfurt). Freighter services complement the connectivity provided by passenger flights, while the cargo industry benefits from economies of scale and scope from the consolidation of activity.

203. Where dedicated freighter flights cannot be accommodated at Heathrow (due to capacity constraints), freight customers have the following choices:

[78] (Airport Coordination Limited, 2017, p. 11)
[79] (Stansted Airport, 2015a, p. 9)
[80] (Stansted Airport, 2015b, p. 29)

- Operate freighter flights (or use existing freighter flights) from other UK airports where capacity is available (e.g. Stansted, East Midlands).
- Transport freight in the bellyhold of passenger flights from Heathrow (or other UK airports).
- Transport freight to a major European air freight hub (e.g. Liege, Frankfurt), typically by truck.
- Use surface modes of transport (road, rail, water) for the whole journey (note that this is not a realistic option for most potential air freight consignments due to the distances involved and/or urgency of shipment).

204. The capacity constraints at Heathrow also limit the number of passenger flights that can be operated. This in turn will have an impact on the bellyhold capacity that is available. However, it is not clear whether this is a substantial issue in relation to potential freight volumes.

- Heathrow continues to dominate the long haul passenger segment (72% of UK passengers in 2016[81]).
- Where demand is available, it is typically more economic to use constrained Heathrow slots for long haul flights (compared to short haul). Heathrow's share of overall UK long haul passengers has actually grown since 2002 (from 70% to 72% in 2016). In comparison, its share of short haul passengers has dropped from 24% to 17%. This indicates that short haul services are being squeezed out of Heathrow to accommodate long haul growth (due to current capacity constraints)[82].
- Air freight is focussed on long haul markets. Less than 10% of Heathrow freight in 2016 was to/from UK and Europe[83], despite accounting for 62% of passenger flights[84].
- Therefore, the extent to which constraints on Heathrow passenger flights are limiting bellyhold freight at Heathrow is difficult to establish from current publicly reported information.

205. Note that AviaSolutions[85] has undertaken analysis that suggests that average cargo loads at Heathrow are markedly lower than average cargo capacity.

> *"At Heathrow with a significant number of wide-bodied aircraft (35%), we estimate the average belly-hold freight capacity to be 7 tonnes per ATM at LHR (2015), significantly higher than the actual freight per ATM of 3 tonnes".*

206. This indicates there is excess bellyhold capacity at Heathrow. However, capacity may nevertheless be insufficient for demand on certain routes, directions of travel or at particular times of year, etc.

Other Airports

207. In addition to spare capacity at East Midlands and Stansted, other South East and regional airports could also accommodate significant freight volumes if the demand was there. This is true for both freight on dedicated freighter aircraft or bellyhold freight.

208. Bournemouth Airport[86] highlights that:

> *"With ample room to grow, our thriving cargo facility is expanding to meet the demands of importers and exporters from across the UK. Accommodating a huge variety of freight and passenger aircraft, Bournemouth supports cargo logistics round the clock, with the following benefits: 2271m runway, excellent good weather record, congestion free (with*

[81] Source CAA airport statistics, Altitude calculations
[82] Source CAA airport statistics, Altitude calculations.
[83] (Heathrow Airport, 2017, p. 5)
[84] CAA airport statistics
[85] (AviaSolutions, 2016, p. 31)
[86] www.bournemouthairport.com/about-us/doing-business-together/cargo/

no slot restrictions), experienced in handling many cargo aircraft including the AN-124 Ruslan, 'Freighter friendly' airport management."

209. Bournemouth Airport has some disadvantages due to its coastal location and distance from the motorway network. However, similar issues apply to Manston (with its location arguably even more compromised than Bournemouth, given its position on a peninsula). From the South West, West London and the Midlands, Bournemouth is generally more accessible than Manston[87].

210. Outside the South East, Doncaster Sheffield Airport has a central UK location. It markets itself as "*the UK's Freighter Gateway*[88]":

"At the centre of the UK with easy access to the M18, M1, A1M, M62 and M180 Doncaster- Sheffield is the ideal airport for freighter operations. DSA is justifiably gaining the reputation as the most effective freighter airport in the UK. The attributes that are delivering this include…. exceptional performance record, 24 hour operation, runway 2,893m x 60m, CAT III, Class "D" controlled airspace, no slot constraints/congestion, Competitive jet fuel prices, short taxiing distances, excellent cargo reception and handling, inclusive pricing, NEQ capacity up to 9,300kg Hotac."

211. Both of these airports are currently operational, and benefit from a large site with a long runway. Doncaster Sheffield operates 24 hours a day, whilst night flights at Bournemouth can be arranged with prior notice.

212. Finally, there are a range of other UK airports (currently in use) that previously carried significant volumes of freight, and would be able to do so again if demand returned.

- Prestwick handled ca. 42,000 tonnes of freight in 2001, compared to only ca. 11,000 in 2016. We are not aware of any reasons why Prestwick would be unable to handle similar or higher volumes in the future (assuming demand existed).
- Similarly, Liverpool had negligible freight throughput in 2016 but has handled as high as ca. 30,000 tonnes in 1995. Again, we would assume the airport has the capacity to accommodate similar or higher volumes in the future.
- Gatwick bellyhold freight volumes have been as high as ca. 290,000 tonnes in the past, compared to ca. 80,000 tonnes in 2016. As more long haul routes are added at the airport, freight throughput is once again growing. In the 12 months ending September 2017, Gatwick added ca. 15,000 tonnes of cargo (+20.3%)[89].

213. Taking all UK airports combined, the difference between peak year and 2016 freight tonnes was ca. 225,000 tonnes (freight on dedicated freighters only)[90].

- This excludes airports which have closed (e.g. Manston, Plymouth), where commercial activities have been downsized (e.g. Blackpool, Coventry) and London airports (where pressure on slots may reduce the ability to recover to historic volumes should dedicated freight demand return).

[87] For example, the following distances have been sourced from Google Maps for the typical fastest routing. Bournemouth Airport to Hounslow: 90 miles, Manston Airport to Hounslow: 103 miles. Bournemouth Airport to Bristol: 70 miles, Manston Airport to Bristol: 201 miles. Bournemouth Airport to Birmingham: 167 miles, Manston Airport to Birmingham: 197 miles.
[88] www.therouteshop.com/profiles/doncaster-sheffield-airport/
[89] http://www.mediacentre.gatwickairport.com/press-releases/2017/booming-global-connections-drive-gatwick-to-record-september.aspx
[90] CAA airport statistics.

5.4. Conclusion

214. We conclude that there is no overall shortage of freight capacity at UK airports, whether for dedicated freighters or bellyhold freight.

- The two largest dedicated freight airports have spare capacity.
- There is significant excess capacity at a range of other UK airports that are currently in use. These airports have seen demand reduce due to trends towards consolidation at major airports and switch to trucking.

215. We acknowledge that there is a shortage of freighter capacity at Heathrow. Slot constraints could also be having some impact on the bellyhold market, although the impact may be relatively moderate.

216. However, it is important not to conflate Heathrow constraints with the wider capacity situation. We see no evidence to support the assertion that there is a long-standing shortage of overall UK airport capacity for freight. Indeed, the evidence is to the contrary, given the reductions in freight throughput experienced by many UK airports.

217. There would be substantial benefits to adding freight capacity at Heathrow, the UK's only major passenger hub airport. It can also be argued that freight capacity at a proposed new hub airport in the Thames Estuary would also generate strong benefits if it could be delivered. This option, though, was emphatically ruled out by the Airports Commission.

218. Therefore, it is difficult to see what benefit would accrue from adding freight capacity at non-hub airports, as there is already sufficient supply at advantageous geographic locations. In particular, freight volume at Manston has never exceeded ca. 43,000 tonnes in any single year. This is despite the supposed shortage of UK airport freight capacity and despite a previous owner investing to increase Manston's capacity to 200,000 tonnes per annum.

219. From a freight perspective, we do not consider it meaningful to focus on the South East alone as a separate market. Freight is less time sensitive than passengers. Therefore, for major airports, the freight catchment area is typically many times larger than the passenger catchment area. This is one of the key factors that leads to the high degree of market consolidation seen for air freight.

- East Midlands serves the whole of England and Wales, exploiting its central location in the UK.
- Similarly, the extensive network of long haul flights from Heathrow and its hub operation means it attracts freight from the whole of Great Britain.
- For Europe's major freight hubs, the catchment can be even wider. For example, Leipzig Airport considers its catchment covers a 10-hour trucking radius (see Figure 38), while Liege sees its catchment as all areas within access of a full day trucking (see Figure 39). The catchment areas for these two airports are particularly wide, as a result of their wide range of air services.

220. Mainly due to the hub strength of Heathrow, 78% of 2016 UK air freight was flown from airports in the South East & East of England. Heathrow and Stansted alone achieved 65% and 7% market share respectively.

- Much of the UK's high value manufacturing is located outside London and the South East[91]. In Q1 2015, only 15% of UK manufacturing jobs were located in London and South East[92].
- Clearly, a substantial proportion of air freight using Heathrow in particular will be travelling to/from other areas of the UK.

221. More important is the type of airport capacity. Freight has consolidated around the three major air freight airports (Heathrow for bellyhold, while freighter activity is concentrated on East Midlands, Stansted and

[91] (Heathrow Airport, 2014, p. 19)
[92] (House of Commons Library, 2015, p. 7)

Heathrow). This enables the air freight industry to benefit from the economies of scale and scope flowing from consolidation. These cost efficiency pressures are unlikely to reverse.

6. UK Capacity Outlook

6.1. Context

222. In the previous section, we demonstrated that there is currently no overall shortage of freight capacity at UK airports.

223. In this section of the report, we analyse the scope for developing freight capacity at existing airports, in order to meet future demand.

- We focus on the published expansion plans of the three major freight airports.
- We consider the spot years of 2029 (prior to assumed new runway opening at Heathrow in 2030), 2040 (medium term planning horizon) and 2050 (long term planning horizon).

224. We also review comments in the Azimuth report in relation to the future role of individual airports.

6.2. Review of Individual South East Airports

Heathrow Airport

225. In its final report, the Airports Commission[93] "*unanimously concluded that the proposal for a new Northwest Runway at Heathrow Airport… presents the strongest case*." Heathrow is working on a timeline of a 2025 opening[94]. However, we consider that an assumed opening date of 2030 is more prudent, given the complexity of the planning and construction process. This aligns with the Airports Commission's stated need for one additional runway to be in operation in the South East of England by 2030.

226. Heathrow is developing its infrastructure to increase its cargo handling capability. The airport states:

> *"We are developing proposals for a complete overhaul of our cargo facilities as part of our expansion plans for an additional runway. Redevelopment of the airfield will provide an opportunity for the first time to expand the site and create new efficiencies*[95]

227. The airport has commented on the factors that currently reduce its competitiveness for cargo, and has developed a strategy to address these issues:

> *"Our customers have told us about the bottlenecks caused by some of the infrastructure, inefficient facilities and processes that are slower and more arduous than those of our European competitors. Our stakeholders rate us as poor for our facilities and value for money"*[96]

228. In its 2016 document 'Heathrow Cargo Strategy', Heathrow states:

> *"Our cargo strategy will lift freight volumes to 3 million tonnes a year by 2040"*[97]

229. Based on UK CAA data for 2016, this represents CAGR of 2.7% over 2016-40. Documentation from the airport indicates that growth is likely to come from additional bellyhold capacity rather than freighter ATMs:

> *"This will provide capacity at Heathrow for freight and cargo to be carried in the belly hold of passenger flights"*[98]

[93] (Airports Commission, 2015, p. 9)
[94] https://www.heathrowexpansion.com/local-community/important-dates-information/ (retrieved 19th October 2017).
[95] (Heathrow Airport, 2014, p. 20)
[96] (Heathrow Airport, 2016b, p. 2)
[97] (Heathrow Airport, 2016b, p. 2)
[98] (Heathrow Airport, 2014, p. 20)

230. Azimuth[99] discusses Heathrow in its first report.

231. Azimuth states that "*Indeed, more than 99% of air freight at Heathrow is carried in the bellyhold of passenger aircraft*". This is incorrect. Since 2010, the proportion of bellyhold freight at Heathrow has consistently been around 95%. A CAA report seems to be incorrectly attributed by Azimuth as a source for this figure.

232. It is also suggested that:

> *"The addition of a third runway at Heathrow is unlikely to resolve the capacity issues for dedicated freighters. Since Heathrow's passenger market has been constrained for some years, it is likely that the new runway will be used to meet this pent-up demand".*

- This is a pessimistic viewpoint. Heathrow's runway capacity in 2016 was 99% utilised[100]. With ca. 50% additional capacity on opening of a third runway, we would envisage some opportunities for additional freighter flights. Despite severe slot constraints, the number of freighter movements at Heathrow has remained stable since 2010[101].
- Therefore, there is some prospect of more freighter traffic at Heathrow after the opening of the third runway. Nevertheless, we do not dispute that there will be ongoing constraints on freighter activity at Heathrow, especially in the very long term.
- Of course, the major expansion of passenger flights following the new runway opening will lead to a substantive uplift in bellyhold capacity. As previously discussed, for most types of general freight, there is no inherent market preference for bellyhold or freighter carriage (with cost often the key deciding factor, which generally favours bellyhold). Therefore, the new Heathrow runway will add a significant amount of new cargo capacity into the UK market.

233. The Azimuth report also speculates that:

> *"Should Low Cost Carriers, who do not carry belly-freight for operational reasons, fill much of the additional runway capacity, Heathrow's freight handling, in terms of tonnes per year, is unlikely to increase substantially."*

- We view the references to low cost carriers as not relevant. Even if low cost carriers switch to Heathrow (which may depend on the level of airport charges after the new runway opens), this will have limited impact on bellyhold capacity.
- The full service short haul carriers operating at Heathrow currently contribute very little in terms of freight tonnage. Less than 10% of Heathrow freight is to/from UK and Europe[102], compared to 62% of passenger flights[103].
- There are several factors that cause this. In general, air freight is less competitive than trucking for shorter distances. Furthermore, the cargo carrying capacity of short haul aircraft (typically narrowbody types) is limited. Finally, air freight that is flying short distances tends to be express cargo, which is more likely to use dedicated freighter aircraft.
- Therefore, whether low cost carriers operate a significant proportion of Heathrow short haul services in the future will not have a significant impact on bellyhold availability. Similarly for long haul low cost, as these airlines typically carry bellyhold cargo (e.g. Norwegian).

[99] (Azimuth Associates, 2017 a, pp. 15-16)
[100] 474,963 ATMs compared to cap of 480,000 (source CAA airport statistics).
[101] Cargo ATMS at Heathrow since 2010 were 2010: 2,414; 2011: 2,456; 2012: 2,378; 2013: 2,347; 2014: 2,332; 2015: 2,388; 2016: 2,452; (source: CAA airport statistics).
[102] (Heathrow Airport, 2017, p. 5)
[103] In 2016 Heathrow handled 477,614 aircraft movements. 295,605 of these flew Domestic or European routes [source: CAA airport statistics, Altitude analysis].

234. Azimuth also compares Heathrow processing times unfavourably to Manston Airport. We noted above (see paragraph 227) that Heathrow has a strategy to improve its process efficiency. However, the broader point is that this is not a meaningful comparison.

- Using a dedicated freighter at an unconstrained airport should nearly always be the fastest way of transporting air freight, assuming equivalent trucking time to reach the airport[104].
- However, for the majority of general cargo, the time-sensitivity is in the order of days rather than hours. A bellyhold freight consignment through a major hub will typically be much cheaper. Freight can be consolidated with other freight consignments. The incremental cost of carriage for bellyhold is relatively low, meaning that rates charged are typically much more competitive than for freighters – especially if there is not enough volume to fully utilise freighter capacity.

235. Finally, Azimuth[105] refers to a York Aviation study, in the context of Heathrow:

> *"York Aviation figures show, there will be a shortfall of slots for dedicated freighters, likely to be in the region of 45,000 by 2050".*

- This is an incorrect reading of the York report, which York Aviation rebut in detail in its November 2017 report commissioned by SHP[106].

236. In summary, the Azimuth analysis substantially underplays the potential for freight growth at Heathrow.

Stansted Airport

237. The airport has outlined infrastructure improvements to facilitate cargo traffic growth, including the potential for more cargo handling facilities to be built, and increasing the number of stands for cargo aircraft from 16 to 24[107].

238. Stansted Airport also published a 'Sustainable Development Plan' document in 2015 detailing the future demand it expects to handle:

> *"There is potential for cargo goods volume at the airport to increase on the single runway, potentially doubling the current throughput of cargo on dedicated aircraft to around 400,000 tonnes per annum….. Further growth can be expected from belly hold cargo as the range of airlines and destinations operating from the airport increases. The current modest amount carried in the belly hold of passenger aircraft could increase to around 60,000 tonnes a year"*[108]
>
> *"There is potential that cargo movements could rise to make full use of the current movement limit, however this needs to be considered against growth in passenger movements and the night quota. For planning purposes we have assumed that the number of cargo movements will be in the range of 15,000 and 18,000 per annum…. The majority of the cargo movements are expected to operate during the late evening and at night. Cargo aircraft will continue to operate during the off-peak periods between passenger movement peaks"* [109]

239. Note, the document is vague regarding the timescales relating to its forecast; it never states the year in which it expects demand to reach the forecast level. An assumption that the figure of 460,000 tonnes per annum is achievable by 2040 results in a CAGR of 2.7%[110].

[104] Although for most parts of the UK, trucking time to Heathrow will be significantly shorter than to Manston.
[105] (Azimuth Associates, 2017 a, p. 16)
[106] (York Aviation, 2017)
[107] (Stansted Airport, 2015b, p. 36)
[108] (Stansted Airport, 2015b, p. 26)
[109] (Stansted Airport, 2015b, p. 29)
[110] We believe this is a reasonable assumption, as both Stansted and East Midlands forecast are owned by MAG; MAG produced both forecast documents in the same year and using the same formatting and template; 2040 is the stated forecast year for East Midlands.

240. A plan for 15,000-18,000 cargo ATMs, when there is currently a limit of 12,000 overnight ATMs in total, possibly indicates growth of general cargo is expected.

241. Azimuth[111] argues that freighter services at Stansted will be forced out by passenger services.

> *"However, the airport is under pressure from Ryanair to increase the number of passenger flights. Ryanair is the dominant carrier at Stansted Airport and, since the LCC model is based on fast turnarounds, the airline will not tolerate interference from cargo handling. Ryanair is increasing their offering to more distant destinations including Turkey, North Africa, Cyprus and the Middle East. For the airline to maintain four rotations per day to maximise the profitability of each aircraft, late evening and night time slots will be required. Freight carriers have traditionally used these night slots."*

242. Azimuth continues:

> *"Since the airport also has a limit on total movements, this may mean Stansted has to choose between increasing passenger movements or retaining its freight. In this case, it seems likely that Stansted's management will preference passenger movements."*

243. There is no foundation for a number of the points raised above. Taking the various points in turn:

- No supporting evidence is provided for the statement that Ryanair is applying pressure on the airport to increase passenger flights (especially the implication that this would be at the expense of cargo flights). The Summer 2017 peak week runway profile (Figure 18) clearly indicates significant capacity for Ryanair to expand operations.
- We do not see any reason why handling freight from dedicated freighters would have any impact on the turnaround time of Ryanair aircraft.
- Azimuth appears to have limited understanding of the low cost carrier sector. We estimate that Ryanair averaged less than 2.5 rotations per aircraft per day across its network in FY17 (based on an analysis of its financial accounts).
- Ryanair operate from airports with night curfews or with night restrictions. Across 2017, an analysis of OAG schedule data for Stansted suggests that less than 3% of Ryanair flights operate in the night time period. Stansted Airport expects that cargo aircraft will continue to operate during the off-peak periods between passenger movement peaks (see paragraph 238).
- Stansted Airport has a separate movement cap for cargo and passenger ATMs. There is also an overall ATM cap[112], which is the sum of the separate passenger and cargo ATM caps. Therefore, the suggestion that Stansted will need to prioritise passenger flights over cargo flights is misplaced.
- Finally, no acknowledgement seems to have been made by Azimuth that Stansted Airport has stated that it is planning to grow freight tonnage alongside developing the passenger business (see paragraph 238).

Gatwick Airport

244. As discussed in paragraph 212, Gatwick has previously carried bellyhold volumes of ca. 290,000 tonnes (ca. 210,000 higher than the 2016 outturn). Gatwick had lost freight volumes as traffic mix has changed, in particular following the loss of long haul services after changes to traffic distribution rules in 2008.

245. Freight volumes have been growing rapidly since 2015, helped by the recent expansion of long haul services (many by low cost carriers). As more long haul services are added at the airport, we would expect continued growth.

[111] (Azimuth Associates, 2017 a, pp. 14-15)

[112] www.acl-uk.org/wp-content/uploads/2017/07/STN-Local-Rule-4-1.pdf . Note that the airport also has an overall movement cap, which comprises of passenger ATMs + cargo ATMs + 10,000 other movements.

246. Azimuth[113] only comments briefly on Gatwick:

- "*It has increased its annual tonnage from only 3,000 in 2014 to 73,000 tonnes in 2015*." This is a somewhat surprising statement. Growth of this scale would merit more than a passing mention. However, the true freight tonnage in 2014 was ca. 89,000 tonnes, not 3,000 tonnes (source: CAA airport statistics).
- "*Gatwick is not a serious competitor in the freight market*." We note that current freight throughput (year ending September 2017) was almost 90,000 tonnes, more than double the peak annual value achieved by Manston in its entire existence. It was the 5th largest UK freight airport in 2016.

Other South East Airports

247. Azimuth[114] discusses the potential of other South East airports. As noted previously, we do not believe there is requirement for new freight capacity in the South East specifically. Therefore, we only briefly comment on the potential of other airfields.

- Bournemouth is only fleetingly considered by Azimuth. As highlighted in paragraph 208, we consider there to be some potential for freight development from this airport, a view shared by the airport itself.
- We also note that in its analysis of Southampton, Azimuth wrongly states that it handled 185,000 tonnes in 2015 (the correct figure is 185,000 kilogrammes or 185 tonnes). The short runway at Southampton constrains its ability to serve the freight market.

6.3. Review of Individual Regional Airports

East Midlands Airport

248. East Midlands is the UK's leading airport for dedicated freighter activity. Its central location enables it to serve a wide catchment, encompassing England, Wales and Scotland.

249. This is acknowledged by Azimuth[115]. However, it argues that the airport is not in a good position to serve the South East.

> *"At present the airport serves a wide catchment area as shown in Figure 2. However, surface access to these geographically distant businesses, of which many are concentrated in the South East, is hampered by congestion on the UK's road network. Therefore, total time taken to deliver from origin to final destination increases, particularly around the bottlenecks on some of the major motorways. Figure 2 clearly shows the number of businesses located in the South East, within the Manston catchment area.*

250. Earlier in the report (see paragraph 170 onwards), we provide a comparative analysis of the accessibility of East Midlands versus Manston. Given the wide catchments areas for cargo (see paragraph 219), we consider that the East Midlands is very accessible for the South East market. The M25 orbital motorway can be reached in just over 1.5 hours.

251. East Midlands Airport notes that the vast majority of vehicle movements to/from the airport take place very late at night or very early in the morning (see paragraph 151). Therefore, motorway bottlenecks alluded to by Azimuth should have a limited impact, as journeys will not be taking place during peak hours. In any case, congestion on the UK motorway system will affect all UK airports (including a reopened Manston).

[113] (Azimuth Associates, 2017 a, p. 16)
[114] (Azimuth Associates, 2017 a, pp. 18-19)
[115] (Azimuth Associates, 2017 a, pp. 17-18)

252. East Midlands has a benign planning environment (see paragraph 192 onwards). Despite the relatively low level of restrictions, the airport acknowledges sensitivity to developments that will impact on night time noise:

> *"Any further consideration or development at the airport related to night flights will require the application of stringent controls over night-time noise."*[116]

253. East Midlands Airport has land available for development of additional cargo facilities in order to support growth:

> *"The DHL Hub building opened in 2000 and it was always intended that the site would be developed in phases. Land continues to available for phased development on the western side of the building"*[117]

> *"Land will be reserved for the development of an integrator hub at Cargo East on land between the Pegasus Business Park and the runway/taxiway. This will enable the development of additional apron to serve the new hub operation. The building will be of a significant scale and will provide for the sortation systems required by the integrated carriers and also landside vehicle access for vans and for HGV's"*[117]

> *"Opportunities will be identified for incremental redevelopment and improvements to the existing Transit Sheds in Cargo East. A site for new cargo development, to the east of the current Royal Mail hub, will also be reserved. These development schemes will be made on a case by case basis and in response to operators' requirements"*[118]

254. As noted in paragraph 153, a rail interchange adjacent to the airport is in development, further strengthening its market position.

255. In the 'Sustainable Development Plan' document referenced previously, East Midlands Airport also publishes a demand forecast for the airport.

256. This forecast assumes that freight at East Midlands continues to be carried on freight-only aircraft, and that the type of freight carried by integrators (primarily express) will grow faster than that carried by other types of carrier.

> *"The forecast for future cargo tonnage is for some 618,000 tonnes in 2035 and some 700,000 tonnes in 2040…. by 2040, the number of cargo movements could grow to around 42,600. This reflects the growth of the integrated carriers and that the average freight load per cargo aircraft movement is predicted to increase from 14.4 tonnes in 2012 to 17.9 tonnes at 2040"* [119]

> *"The future split of day and night movements is expected to be similar to that of today"*[120]

257. Note that the airport does not include in its forecast any significant growth of mail (as it expects "*structural changes to the mail market. This is as a result of the shift from letters to parcels*"[119]).

258. In addition to stating its forecast demand, East Midlands Airport made clear statements on its future capacity in its 'Sustainable Development Plan' document. It does not believe it will be constrained by 2040:

> *"There are therefore no plans for the development of a second runway within the planning horizon covered by this Master Plan (2040) …. The capacity of the East Midlands Airport*

[116] (East Midlands Airport, 2015, p. 69)
[117] (East Midlands Airport, 2015, p. 79)
[118] (East Midlands Airport, 2015, p. 80)
[119] (East Midlands Airport, 2015, p. 61)
[120] (East Midlands Airport, 2015, p. 111)

runway is estimated to be between 34-36 runway movements per hour. This provides the airport with sufficient runway capacity for the foreseeable future and will be more than sufficient to accommodate an airport of a scale to handle 10 million passengers and 1.2 million tonnes of cargo annually" [121]

"the Land Use Plan identifies the land, the uses and the facilities required to support the operation of an airport capable of handling 10 million passengers annually and 1.2 million tonnes of cargo"[122]

"there will need to be a minimum of seven additional cargo stands provided including the ability to regularly park aircraft up to Code F (Boeing 747-8F) size"[123]

Other Regional Airports

259. There are a range of other regional airports with spare freight capacity which could play a larger role in the future.

- Doncaster Sheffield (see paragraph 210).
- Manchester Airport is the largest passenger airport outside the South East. It operates a two-runway system (the only UK airport with two runways except Heathrow). It has previously handled substantially more freight than currently handled.
- Similarly, Liverpool and Prestwick have previously handled much higher freight volumes than currently. Both airports have significant spare runway capacity and a large site to develop cargo infrastructure (Prestwick already has the facilities to handle specialist cargo). While Prestwick may be too far north to effectively serve the South East market, it could relieve pressure on other UK airports by capturing a larger share of freight demand to/from Scotland and the North of England. Liverpool is well connected to the UK motorway network, and the airport is owned by the operators of Liverpool Port.

6.4. Overall Capacity Outlook to 2040

260. We have projected the overall airport capacity for freight in 2040. For the three largest freight airports, future capacity has been sourced from the published plans described in the previous sub-section.

- While Heathrow and Stansted do not explicitly state their maximum expected future cargo capacity, we can assume each airport will have at least enough capacity to serve its predicted demand[124].
- The Heathrow figure assumes the opening of the planned third runway.

261. For other airports, we assume the following:

- Gatwick has handled ca. 0.2m annual tonnes of freight as recently as 2006. We assume it has the capability (demand permitting) to handle similar volumes in the future.
- Manchester handled ca. 0.17m annual tonnes of freight in 2007, and in its 2006 Masterplan, the airport forecast cargo tonnage of 0.25m tonnes by 2015[125]. We assume that the airport will be able to accommodate freight up to its masterplan forecast (0.25m tonnes).

[121] (East Midlands Airport, 2015, p. 73)
[122] (East Midlands Airport, 2015, p. 9)
[123] (East Midlands Airport, 2015, p. 75)
[124] Documentation from these airports indicates they have identified and made provision for developments of ground facilities (warehouses, stands etc…) to accommodate the forecast demand. Only Heathrow requires development of runway capacity.
[125] (Manchester Airport, p. 29)

- We assume that the remaining UK commercial airports (which are still fully operating) can handle freight tonnage at the level of previous peak year throughputs. This provides an assumed capacity of ca. 0.3m tonnes.
- Finally, we assume that by 2040, an additional 0.1m tonnes could be handled at airports with large sites but limited historic freight throughout (e.g. Doncaster Sheffield). This is likely to be a conservative assumption.

262. Total UK air freight capacity in 2040 is estimated to be ca. 5.4m tonnes per annum (including the impact of a new Heathrow runway). Of this, ca. 65% could be bellyhold capacity, with ca. 35% from freighters. Capacity at the three main cargo airports (Heathrow, East Midlands and Stansted) is estimated to be ca. 4.6m tonnes.

Airport	Estimated 2040 Capacity (m tonnes)	Possible Utilisation	
		Freighter	Bellyhold
Heathrow	**3.00**	0.09	2.91
East Midlands	**1.10**	1.08	0.03
Stansted	**0.46**	0.40	0.06
Manchester	**0.25**	0.03	0.23
Gatwick	**0.20**	0.00	0.20
Other UK	**0.39**	0.30	0.09
Total UK	**5.40**	**1.89**	**3.51**

Table 2 – Summary of estimated 2040 air freight capacity at UK airports
Source: Heathrow Airport, East Midlands Airport, Stansted Airport, Manchester Airport, UK CAA, Altitude analysis and assumptions

6.5. Capacity Outlook Prior to New Runway at Heathrow (2029)

263. We have also considered the potential capacity available prior to the third runway at Heathrow (assumed to open in 2030). There is limited information on the phasing of future capacity developments in the period to 2040, so this estimate has a greater reliance on our assumptions.

264. We have modelled the potential UK air freight capacity in 2029 at ca. 3.6m tonnes. This is based on the following prudent assumptions:

- No additional passenger or cargo ATMs at Heathrow compared to 2016. We assume that the airport will be able to accommodate freight growth at half the achieved annual growth rate for bellyhold tonnes/ATM recorded from 2006-16.
- We assume that the current Stansted and East Midlands capacity is at least 20% above 2016 freight outturn. We then model that the incremental capacity to be added by 2040 will be brought onstream at a constant rate.
- We model that Manchester is able to handle freight that was forecast for 2015 in its 2006 masterplan (same as 2040 assumption).
- For all other existing commercial UK airports, we assume the airports can handle historic peak values.

265. This is a deliberately cautious approach. Neither Stansted nor (especially) East Midlands face substantial freight constraints currently, and should be able to handle much higher freight volumes in the coming years.

6.6. Post 2040 Capacity Outlook

266. In the long term, there is the possibility of additional runway capacity in the South East. The Airports Commission stated in its final report:

> *"Even with a third runway at Heathrow, capacity in the London and South East system could be highly constrained by the 2040s and, as the Commission noted in its Interim*

Report, there would be likely to be sufficient demand to justify a second additional runway by 2050 or, in some scenarios, earlier"[126]

267. The regulatory environment, particularly with regard to noise and night flying, looks likely to be a key determinant as to the overall capacity that might be available for cargo movements post-2040.

[126] (Airports Commission, 2015, p. 334)

7. UK Demand vs Supply Outlook

7.1. Our Forecast for the UK Market

Context

268. We have assessed the future demand for air freight in the UK, reflecting some notable trends:

- Increasing role of passenger aircraft in the carriage of air freight, and the relative diminishing in importance of freighter aircraft. Passenger demand has developed strongly in recent years. This has led to expansion of cargo capacity in the bellyhold of passenger aircraft outstripping growth in air freight demand (see Figure 37).
- This trend has led to cutbacks in dedicated freighter operations from leading airlines such as Cargolux, IAG, Air France-KLM and Singapore Airlines (see paragraph 425). As of Q4 2016, 15% of widebody freighter capacity globally was in storage (see Figure 36). Airbus forecasts growth of just 42 freighters in European fleets by 2036[127]. In the UK, freight tonnes carried on all-freighter aircraft peaked in 2004. Since 2004, its share of total air freight has fallen from 37% (ca. 876,000 tonnes) to 30% by 2016 (ca. 708,000 tonnes, see Figure 5).
- There has also been a clear move towards consolidation of air freight activity at major passenger or freight hubs. In the UK, the leading 3 airports (East Midlands, Stansted and Heathrow) have steadily grown their share of overall UK air freight tonnes on dedicated freighter services – from 41% in 1990 to 86% in 2016 (see Figure 7). The UK bellyhold market is even more consolidated, with the leading 3 airports (Heathrow, Manchester, Gatwick) achieving a combined market share of 97%+ in each year since 1996 (see Figure 11).
- Cargo ATMs across UK airports have contracted, from ca. 108,000 in 2000 to ca. 52,000 in 2016. The most recent (2017) Department for Transport forecasts to 2050 assume the number of freighter flights in the UK will remain flat at 2016 levels[128].

269. We expect these trends to continue into the long term. These fundamental market developments do not appear to have been recognised by Azimuth, or have been ignored, in its assessment of the potential for a re-opened Manston.

Forecast Approach

270. Air cargo forecasting is complex, with a wide variety of factors influencing long-term demand. These include:

- High-level economic factors (such as overall GDP growth of the producer and consumer countries, and exchange rates) as well as low-level economic factors (e.g. business rates and import/export taxes).
- The state of global relations and the proliferation of protectionist trade measures.
- The mix of products being traded (remembering that generally only high-value items are suitable for air freight).
- The rate of product miniaturisation (which reduces air cargo volumes/tonnages).
- Development of entirely new products (e.g. iPhone and the global uptick in air freight when a new model is released).
- Technological advances enabling mode shift to or from air freight.

[127] (Airbus, 2017a, p. 105)
[128] (Department for Transport, 2017a, p. 33)

- Fuel prices impacting the competitiveness of air freight relative to other modes (while some products must travel by air, for others this is a preference, which is influenced by price).

271. It is also reasonable to suggest that there is less of a global focus on air cargo forecasts than, for example, air passenger forecasts. As such, there is less detailed, less well-defined, and less-robust data available upon which to base air cargo forecasts.

272. In the interests of simplicity and transparency, we have adopted a very high level econometric approach.

- Future freight growth has been linked to projections of future UK GDP growth.
- We use the UK Office for Budgetary Responsibility long term predictions of UK GDP[129]. In real terms, UK GDP is anticipated to grow by CAGR 2.2% in the period 2016-40 (CAGR 2016-29: 2.2%, 2029-40: 2.3%) with CAGR of 2.4% for period 2040 to 2050.

Forecast Results – Base Case

273. We project the size of the UK air freight market in 2040 to be ca. 4.2m tonnes per annum. This breaks down as ca. 3.1m tonnes of bellyhold demand and ca. 1.1m tonnes of freighter demand. We also project that:

- 2029: ca. 3.3m tonnes (of which ca. 0.9m tonnes of freighter demand).
- 2050: ca. 5.1m tonnes (of which ca. 1.2m tonnes of freighter demand).

274. Key assumptions made in generating our base case forecast include:

- Low growth experienced in the last decade will not continue, with future demand elasticities only slightly below historic long-term observed ratios.
- Future demand elasticities will decline slightly with time (also due to increasing market maturity).

275. We forecast the 2016-40 growth rate to be 2.4% CAGR. This is slightly behind the level of growth seen in the long-term historic data (between 1990 and 2016, CAGR was 2.7% CAGR). Nevertheless, we view our forecast as relatively optimistic. Our forecast growth rate is well ahead of the level of growth seen in more recent years (e.g. 2010-16 CAGR of 0.4%).

276. Our forecast growth rate is behind global forecast growth by Airbus (CAGR 2016-36 of 3.8%). This is not unexpected given that the UK is a relatively mature market, and that our forecast is for a longer period. Note also that our forecast is for tonnage, compared to flown tonne-kilometres for Airbus (as such, changes in the average sector length would influence the Airbus forecasts).

Forecast Results – Scenario with lower demand elasticity

277. We have also produced a scenario in which we lower our forecast demand elasticities to be in line with observed ratios from the four most recent historic years (i.e. 2013-16, over which UK air freight tonnage has grown at 1.8% CAGR). GDP growth in this scenario is as per our base case.

278. This scenario results in a UK demand of 3.6m tonnes of air freight in 2040 – significantly lower than our base case forecast (see Figure 19). This highlights the strength of the market recovery we are assuming in our base case.

[129] (Office for Budget Responsibility, 2017, January)

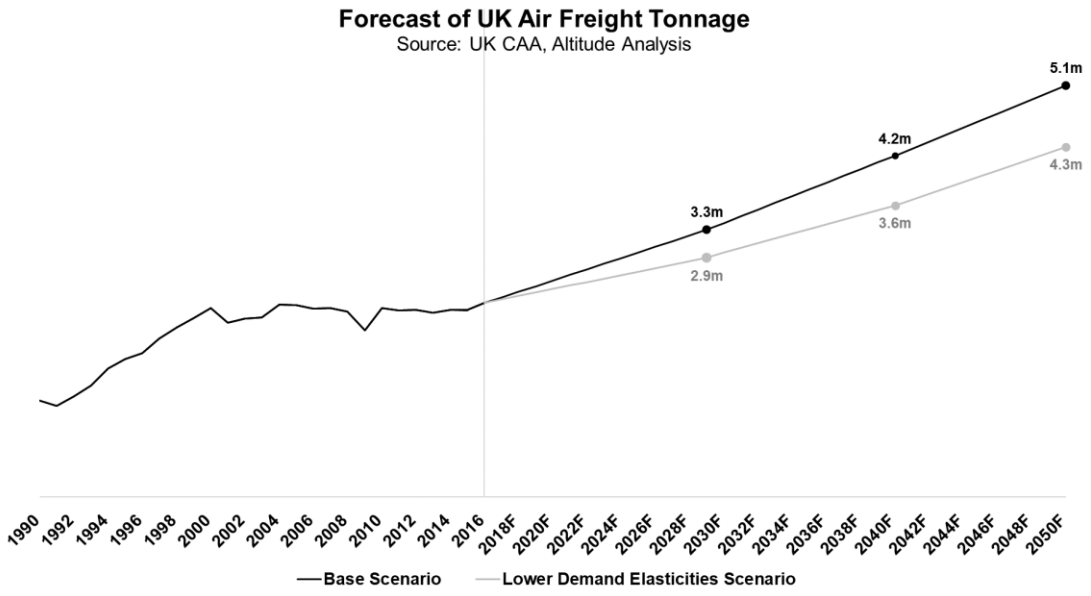


Figure 19 – Altitude forecast of UK air freight demand to 2050

7.2. Other UK Market Forecasts

East Midlands Airport UK Market Forecast

279. In its 2015 'Sustainable Development Plan' document, East Midlands Airport has published its assumptions for the size of the UK market in 2040. It predicts total demand of 4.4m tonnes per annum:

> *"A review of the airport's cargo forecasts has also been carried out. This assumes growth in the UK's total air freight demand, doubling from 2012 levels (2.3 million tonnes) to 4.4 million tonnes by 2040 (combined annual growth rate of 2.3%)"*[130]

280. This gives an average growth rate that is similar to our forecast but from a starting point of 2014 rather than 2016. Growth in the period 2014-16 was significantly lower than 2.3%, explaining the minor differences in the 2040 projections.

York Aviation London Airports Forecast

281. York Aviation published a report in 2015 for the Freight Transport Association and Transport for London. The report included a prediction of the volume of air freight demand in London in 2050. Note the final year of outturn data upon which this forecast is based appears to be 2013.

282. York Aviation's forecast air freight demand at London airports is 4.2m tonnes per annum by 2050[131]. Using the report's stated figure for 2013 freight tonnage at London airports (1.8m tonnes), the forecast CAGR 2013-50 is 2.3%.

283. However, while the growth rate is similar to our UK wide forecast growth, there are again differences in the starting point (achieved growth in the period 2013-2016 was lower than the average growth rate of the whole forecast period).

[130] (East Midlands Airport, 2015, p. 16)
[131] (York Aviation, 2015, p. 19)

7.3. Future Requirement for Freight Capacity at UK Airports

284. As indicated previously, we have compared our forecast demand with our assumed airport capacity for three spot years:

- Prior to new Heathrow runway (2029, last year before assumed new runway opening).
- Medium term planning horizon (2040).
- Long term planning horizon (2050).

285. For the period to 2040, the potential air freight airport capacity in the UK is comfortably higher than the volume of demand we forecast for the UK as a whole.

- In 2029, we forecast base case demand of 3.3m tonnes, compared to a conservatively modelled airport capacity of 3.6m tonnes. In practice we would anticipate that both Stansted and East Midlands capacity could be significantly higher than we have assumed. Therefore, we do not see any overall capacity shortage prior to the third runway at Heathrow.
- By 2040, we forecast demand of 4.2m tonnes, compared to assumed airport capacity of ca. 5.4m tonnes.

286. Furthermore, the potential freighter capacity is significantly above our freighter demand forecast, and the potential bellyhold capacity is also ahead of our bellyhold demand forecast.

287. By 2050, if there is no further capacity development, demand levels are projected to approach capacity provision. This may lead to capacity constraints at preferred airports for the freight sector.

288. Based on planned expansions at the existing major airports, we do not envisage a need for additional freight capacity to be developed in the period to 2040, and possibly not until 2050.

289. Therefore, there is not a compelling need for development of further airport capacity for freighter aircraft in the UK (other than that already in the pipeline or at operational airports with identified potential future capacity).

8. Review of Azimuth Freight Forecasts

8.1. Context

290. In this section, we assess the Azimuth freight forecasts for Manston. As part of this assessment, we review in turn:

- Arguments put forward by Azimuth in Volume 1 in relation to the future potential of Manston. These arguments are then deployed later on in the Azimuth study in support of its freight forecasts.
- The discussion of forecasting approaches put forward by Azimuth in Volume II.
- The research Azimuth undertook (interviews) and their findings and conclusions (Volume II).
- The methodology adopted by Azimuth in its freight forecasts for Manston Airport, set out in Volume III.
- The Manston freights forecasts that have been developed by Azimuth (Volume III).

291. Note that there is a degree of repetition across the various Azimuth reports. To avoid excessive duplication, we review similar points only once.

8.2. Supporting Arguments (Volume I)

292. In this sub-section, we review the key arguments for Manston that Azimuth[132] deploy in Volume I of its report. We critique these points in the same order as they appear in the Azimuth report.

General

293. In Table 2 (P11), Azimuth outlines the leading European airports for freighter movements. In relation to the table, on Page 10 it comments that:

> *"The figures highlight the reliance on belly-freight at most of the UK's airports…. As the UK progresses with negotiations to exit the EU, the Country will find it advantageous to have sufficient capacity at airports that can handle dedicated freighters, without the need to truck to airports in mainland Europe."*

294. We make a couple of observations:

- By Year 5 of the Azimuth[133] forecasts, the predicted freight throughput of Manston is already ahead of the 2014 volumes of some of the leading European airports in the table (Dublin, Rome, Frankfurt Hahn). This highlights the scale and speed of the freight growth that is forecast for Manston by Azimuth.
- The non-UK airports in the table are predominantly major passenger hubs or large passenger airports (typically primary capital city airports). The only exceptions to this are the major integrator hubs at Leipzig and Liege, and Frankfurt Hahn (one of the smaller freight airports in the sample, with lower throughput than envisaged for Manston in Year 4 of the forecasts). This illustrates the importance of "hub" capacity for freighter operations, where wide body long haul passenger flights complement dedicated freighter operations. Manston would not provide this type of capacity.

295. Azimuth also quotes Oxford Economics, Transport for London and York Aviation studies highlighting freight capacity shortages (Volume I, P1-13). We reiterate our previous comments that we do not believe there is an overall shortage of freight capacity. Azimuth ignores the context of these studies, and does not distinguish between hub capacity and freighter capacity at other airports. We refer to the November

[132] (Azimuth Associates, 2017 a)
[133] (Azimuth Associates, 2017 c, p. I)

2017 report by York Aviation[134] which clearly explains how Azimuth misrepresents the studies relied upon to the extent that York Aviation make clear that *" the York Aviation work relied upon by RSP does not, and cannot be taken to, support RSP's proposed alteration to Manston Airport and, therefore, cannot be relied upon by RSP, the Planning Inspectorate, the Secretary of State and any future appointed Examining Authority (should RSP submit the application and the Secretary of State accepts the application)".*

296. Therefore, it does not follow, as stated on Page 13, that "*It is clear from the figures presented here that the capacity available at Manston Airport is vital to the continued competitiveness of the UK.*"

297. Azimuth acknowledges the importance of integrators and freight forwarders on Page 14:

> *"The RiverOak vision is to encourage integrators and freight forwarders to locate in the Manston area, have a competitive pricing structure, and build on the previous excellent cargo handling service provided by the airport."*

298. However, both integrators and freight forwarders consolidate activity at major hubs. It is not clear why they would relocate to the peripheral location of Manston. Heathrow is the major consolidation point in the South East. Even under the highly optimistic Azimuth forecasts, Manston freight throughput would remain a fraction of the Heathrow outturn volumes.

299. Page 14 of the Azimuth report outlines various advantages that Manston apparently benefits from. However, these stated advantages were insufficient to enable the airport to be viable when it was operational.

300. Page 22 raises concerns about the number of destinations served from Heathrow.

> *"The Aviation Policy Framework indicates the Government's concerns over the falling number of destinations served by Heathrow Airport and the impact on connectivity. Profitable routes are operated at higher frequencies, reducing the number of destinations served (DfT, 2013, p. 28). This reduces the possibility of using bellyfreight to those destinations no longer served from Heathrow and indicates the need for dedicated freighters on those routes."*

- It is not clear that the number of destinations served from Heathrow is falling (recent trend is inconclusive).
- As discussed in paragraph 204, capacity constraints have primarily impacted short haul routes, which are less relevant for bellyhold freight. The freight tonnage per flight has been increasing at Heathrow in recent years (see Figure 13).

BREXIT and Security Issues

301. Section 5.2 (P22-23) discusses the potential effect of BREXIT on UK aviation. We agree with the comment that "*There are many unknowns at this stage*". However, only positive outcomes (in relation to Manston) are considered. Some major assertions are made that are based on conjecture and lack logic.

302. For example, on Page 23, it is speculated that:

> *"Friction at the borders between EU countries and the UK, particularly at the Channel ports, is likely to increase to meet the demands of security checks and ensuring tariffs are paid where necessary. This may serve to switch transport away from trucking to air freight, avoiding congestion at the Channel Crossings."*

[134] (York Aviation, 2017, p. 9)

303. Two major assumptions are made. Firstly, that any border issues will be significant and of a permanent nature. However, this will not necessarily be the case. A news report in the Guardian[135] interviewed the chief executive of the Belgian port of Zeebrugge.

> *"Gridlock at the border, vast motorway car parks and jobs lost: British ports have been vocal about the risks of a hard Brexit. In case Conservative MPs missed the message, the Port of Dover advertised at the party conference, warning that an extra two minutes on lorry inspections could lead to queues of 17 miles at Dover and similar "chaos in Calais and Dunkerque".*
>
> *Across the North Sea, continental ports are worried about the great unknowns of Brexit. One of the most exposed is the Belgian port of Zeebrugge, which does 45% of its trade with the UK. "We are vulnerable if something happens to the trade from the UK to the continent," said port chief executive Joachim Coens. "So what I mainly hope is that we could continue having a good trade relationship with the UK… as we have been doing for centuries."*
>
> *However, Zeebrugge is less concerned about the resumption of customs checks – "I think we can handle that," says Coens. The Belgian port could even take business from Calais, he suggests, because it specialises in people-free freight – "roll on, roll off" in industry jargon – removing problems about drivers having to clear UK border controls.*
>
> *Meanwhile, Zeebrugge is fast-tracking the development of apps and scanners to further reduce paperwork. It is developing a UK-specific programme for every stage of the logistics chain, which would allow goods to clear customs even when lorries are miles from the port."*

304. The second major assumption is that customs checks would not have a similar impact on processing times for air freight. As air freight is much more time sensitive than trucked freight, the addition of an hour (say) to processing time would have a much greater impact on air freight than trucking.

305. Even if BREXIT was to negatively impact trucked freight from Europe into the UK, it could equally impact trucked freight in the other direction. Therefore, there could be less flown freight into the UK for onward trucking distribution to other parts of Europe.

306. Azimuth continues:

> *"It is also likely that increased trade will occur between Britain and more geographically distant countries. Trucking of goods to these countries will not be an option thus increasing the need for air freight, making the capacity Manston can provide nationally significant to the Nation's airport infrastructure*".

- This outcome is a possibility.
- It is also plausible that the UK could lose trade with other parts of the world. For example, if Japanese car manufacturers relocated assembly plants from the UK to locations within the single market, this would have a negative impact on trade and freight.

307. In summary, the impact of BREXIT is essentially unknown. No business decision or planning application can be made based on such an unknown.

308. Also on Page 23, Azimuth speculates on the impact of increasing passenger security at airports, following terrorism attacks at Brussels and Istanbul airports.

[135] https://www.theguardian.com/politics/2017/oct/07/zeebrugge-brexit-braced-for-tariffs-trade-loss

> *"Airports are not designed to security check all visitors as they enter the airport. If required, it will cause huge delays and require passengers to arrive many hours (almost certainly at least three) before their flight. These delays impact belly-freight, making a switch to dedicated freighters more likely."*

309. We do not see the logic in this assertion. If passengers need to arrive at the airport earlier, this will not impact aircraft turnarounds or the loading or unloading of freight. These are independent processes. Therefore, it is difficult to see how such a development would have any impact on bellyhold freight.

310. The potential positive impact of e-commerce development is discussed on Page 24. The analysis of the opportunity is anecdotal. No consideration is given to how e-commerce may be replacing other types of freight.

Previous Manston Performance

311. Finally, on Page 26, there is some discussion on why Manston was unsuccessful, despite an efficient cargo product:

> *"Manston established a reputation for speedy handling of perishable cargo, with unloading and throughput times much faster than competitor airports."*

312. Azimuth goes on to state:

> *"Since Manston suffered from a severe lack of investment, and constraints on the ground are likely to have resulted in capacity restrictions that prevented growth past the figures for cargo shown in Table 4. With only one cargo stand, aircraft were unable to exit to the runway if another aircraft taxied into the cargo area behind it. The airport had limited storage, had not invested in up-to-date handling equipment, and closed their Border Inspection Post. In spite of the lack of investment, there was considerable growth in Manston's cargo market from 2010 until 2013. This growth strongly indicates that Manston, with the investment required would have a strong future."*

313. We understand that there was significant investment from previous owners. In 2002, it was reported that £7m had been invested on new aprons and taxiways, increasing the freight capacity to 200,000 tonnes[136]). It seems unlikely that the low level of freighter activity was due to lack of capacity.

- The report states that Manston had 2,073 ATMs in 2013, its last full year of operation. This was also the busiest year for ATMs since 2005. However, CAA data indicates that only 511 fights were cargo related.
- This is equivalent to an average of less than 1 rotation per day in its final full year. If demand was there, we would expect that the airport should have been able to handle much greater levels of freight activity.

314. The Azimuth conclusion (see above) that a reopened Manston would have a strong future is based on the "*considerable growth in Manston's cargo market from 2010 until 2013*". The actual growth was 1,203 tonnes (CAGR 1.4%). In fact the airport did not achieve significant growth at any stage in the last decade of operations, with the 2013 outturn only 2,680 tonnes ahead of the 2004 value.

[136] (Wiggins Group plc, 2002, p. 16)

8.3. Approach to Forecasting (Volume II)

315. In Volume II of its reports, Azimuth[137] discusses at some length air freight forecasting literature and its own research methodology.

316. In the interests of brevity, we do not provide detailed comment on Azimuth's literature review. In general, we find the review is very broad, with much of the material of limited relevance (e.g. use of game theory). The approach is also somewhat academic, with minimal practical application.

317. Azimuth[138] concludes that:

> *"…in the case of Manston Airport, closed for several years and lacking investment for many more, this approach is not appropriate. Any attempt to build an econometric model would have to establish criteria whereby a proportion of the total predicted UK air freight traffic was 'diverted' to Manston. However, deciding upon the proportion to divert to Manston raises significant problems.*
>
> *Therefore, instead of providing a mathematical forecasting model, this review of the literature suggests a qualitative approach that aims to predict human and organisational behaviour. Indeed, the DfT (2014, p. 3) place a heavy reliance on an understanding of human behaviour in achieving realistic outputs. A qualitative approach that gathers the opinions of industry experts would allow areas of potential demand for Manston Airport to be identified. It is this type of approach that has been selected in the case of Manston Airport."*

318. We disagree with the conclusion that a purely qualitative methodology is appropriate. While qualitative approaches can be useful, they are most robust as a complement to a quantitative approach. Furthermore, qualitative approaches are typically only adopted for relatively short term forecasts.

319. The issues with a purely qualitative approach in the context of Manston Airport are:

- Assumptions are subject to bias, lack transparency and are impossible to independently verify.
- Does not identify current market size for relevant segments.
- Forecasts do not reflect historic traffic patterns.

320. In particular, we would have expected some attempt at quantification of the overall UK market size for the different freight segments assumed in the Azimuth forecasts. Otherwise, it is extremely difficult to gauge what level of market share for Manston is implied in each freight niche.

321. In describing its research methodology, Azimuth[139] state that:

> *"It should be noted that a comparative case study approach was not deemed possible, as no airports in sufficiently similar circumstances were identified."*

[137] (Azimuth Associates, 2017 b, pp. 6-25)
[138] (Azimuth Associates, 2017 b, p. 20)
[139] (Azimuth Associates, 2017 b, p. 22)

322. While no two airports are exactly alike, there are various airports with similar characteristics to Manston prior to its closure. For example, Prestwick Airport is an airport with modest passenger volumes that also accommodates dedicated freighter flights. Its peak annual freight tonnage was ca. 43,000 tonnes, almost identical to the equivalent value for Manston (source: CAA airport statistics).

- Prestwick Airport[140] has "*the ability to handle large pieces of specialist cargo*".
- It has invested in the "*latest security screening technology which ensures even long and heavy pieces of cargo can be processed quickly and securely*".
- A dedicated sales team has been established, "*targeting high yielding and specialist areas, whilst still delivering a high quality and cost effective service to routine loads". Furthermore, the "management team also continues to promote the airport as a major UK cargo hub at key global events and trade shows and is doing significant work on evaluating the potential for the airport to become a handling consolidation point for Scotland's perishable export industry and the local aerospace industry*".

323. Despite this investment, the airport's current freight throughput is well below historic levels (ca. 11,000 tonnes in 2016, source: CAA airport statistics). The airport identifies the following challenges:

- "*… the dedicated freighter only aircraft market that the Company has specialised in has been in global decline*".
- "*However, income per tonne has remained static over the last 3 years primarily because of the static market, increasing belly hold capacity and the overall competitive nature of the business*".

324. We note there are many similarities to Manston. The proposed strategy for a reopened Manston has some notable areas of commonality with the current Prestwick strategy. Prestwick incurs substantial financial losses, as did Manston for many years before its closure.

325. Clearly there are some differences. The demand in Scotland will not be as strong as in the South East. However, the level of airport competition is much stronger in the South East.

326. It should also be noted that Azimuth[141] is forecasting ca. 341,000 tonnes of freight on dedicated freighters within 20 years of reopening. This is higher than current freighter tonnage at any UK airport. Therefore, clearly there is no equivalent case study that supports the Azimuth growth forecasts.

[140] (Glasgow Prestwick Airport Limited, 2016)
[141] (Azimuth Associates, 2017 c, pp. 11-12)

8.4. Expert Interviews and Discussion (Volume II)

327. The qualitative forecasts by Azimuth[142] were informed by interviews with 24 different parties.

- Only a minority of the parties interviewed appear to be airlines or freight forwarders. Many of the interviewees seem to be of limited direct relevance.
- It is not clear how much air cargo to/from the UK is transported by interviewees. With the notable exceptions of DHL and FedEx, most operators interviewed appear to be relatively small. Azimuth[143] comment that "*there was a wide range between 90 tonnes and 20,000 tonnes per year for the smaller shippers to vast amounts for the integrators.*"
- There is limited visibility on how much cargo these operators used to fly through Manston when it was open.

328. There is also a lack of information on the following points:

- Which airports would a re-opened Manston be capturing cargo from?
- Why do operators not use East Midlands or Stansted, given stated concerns with Heathrow?
- What are the relative economics of using Manston versus bellyhold freight at Heathrow, freighters at alternative UK airports or trucking?

329. Not all the comments support the RSP case for Manston:

- Page 30: *"… it's not going to work if you can only fly between 10.00 and 21.00".* This suggests the airport would need to accommodate night flights to be viable.
- Page 41: "*Integrators monopolise the freight-friendly airports such as East Midlands (DHL) and are reluctant to change their operations, preferring to cope with slot restrictions at Heathrow rather than moving to other more cost effective airports (DHL, FedEx). The explanation for this is the focus on associated fixed costs and the resources involved to make a move to another airport (FedEx)*". This confirms that integrators (and associated high freight tonnage) will be unlikely to move to Manston. The remaining opportunities discussed are mainly in niche areas.

330. We question some of the responses from interviewees:

- On Page 42, Frankfurt is highlighted as an example of a successful cargo airport which does not have 24 hour operations. This is not a relevant comparison in the context of Manston. Frankfurt is one of Europe's leading passenger hubs (over 60m passengers in 2016), with dedicated freighter flights complementing bellyhold provision.
- On Pages 43/44, it is hypothesised that "*With London being a major economy and with scant landing slots available for cargo, a portion of Frankfurt cargo is likely being transported from Frankfurt to London by truck. Manston could readily handle this business in a more cost effective and timely manner, with less environmental impact than trucking from Frankfurt to the UK.*". There is simply no supporting evidence for this assertion, or consideration of the possibility that trucking may be more cost effective (and environmentally friendlier) than flying.
- On Page 46, there is speculation of the impact of Brexit. "*With the UK's exit from the EU, more stringent border control procedures can be expected… Given increased friction at the border crossings, this market is more likely to consider moving to airfreight*". We address this issue from paragraph 302 onwards.

[142] (Azimuth Associates, 2017 b, pp. 25-46)
[143] (Azimuth Associates, 2017 b, p. 26)

331. In the discussion section of the Azimuth[144] report, a range of market opportunities for Manston are put forward. We have commented on many of these areas in depth earlier in our report. On Page 58, Azimuth discusses how future preferences may shift away from bellyhold freight.

> *"Whilst the UK air freight market is currently dominated by belly-hold rather than dedicated freighters, this is the reverse of the situation in the rest of Europe. Several factors may contribute to a change to this dominant model. These include reduced capacity on aircraft such as the A380, the LCC model, which generally focuses on rapid turnarounds, which preclude the carriage of freight. In addition, many interviewees talked of freight being bumped from passenger aircraft and the negative impact this has on their business. If the market was to move away from belly-freight and towards the use of more dedicated freighters, Manston would be well placed to attract this growing market".*

332. We disagree with this assessment:

- Trends in the UK and globally have been strongly towards bellyhold (due to passenger demand and hence belly hold capacity outstripping air cargo demand, see Appendix Section 11.3).
- The A380 is the exception. In general, newer widebody aircraft types have more bellyhold capacity than predecessors (see paragraph 140 onwards).
- There is limited freight uplift from full service passenger airlines operating short haul routes. Therefore, increased penetration of low cost carriers in this segment will not have a major impact (see paragraph 233).

333. On Page 64 of the Azimuth report, it is speculated that Manston could act as a base for Amazon, including the development of a drone hub. No supporting evidence is provided. For the locational reasons highlighted previously, Manston does not seem an obvious choice to host such activity.

[144] (Azimuth Associates, 2017 b, pp. 56-66)

8.5. Methodology Used in Manston Forecasts (Volume III)

334. Volume III of the Azimuth[145] report provides freight forecasts for the first 20 years of Manston Airport (after assumed reopening).

335. In the preamble, Azimuth once again seeks to justify its qualitative approach (Page 3).

> *"The second option was to take a qualitative approach focused on collecting market data. This allows base data to be derived from a method that takes account of how commodities are currently transported and how they are likely to be transported in the near future. This approach is particularly applicable in the Manston case since the airport is not currently operational. Indeed, in the short-term, any useful forecast needs to be built from the likely behaviour of potential airport users.*
>
> *This method is confirmed by the ACI-North America, who represents local, regional and state governing bodies that own and operate commercial airports in the United States and Canada, and recommends deriving customised inputs from a detailed market assessment. This assessment should be informed by carriers, their business partners and other supporting entities in the air freight community (ACI-NA, 2013, p. 3)."*

336. We do not believe that the ACI[146] study provides sufficient rationale for the Azimuth forecast approach. The same ACI study states on Pages 46/47:

> *"The best source of customized inputs in a forecast derives from a detailed market assessment. Carriers, their business partners, and all of the supporting entities in the air cargo community can provide meaningful input to ensure that the forecast is anchored in reality and adds clarity to the planning requirements."*
>
> *"Use the most reliable and current data – A correct and solid traffic basis is essential. If not available, different data sources should be consulted to establish the best possible estimates."*
>
> *"Typically, at least two forecast scenarios are developed to provide a range of potential future activity levels. The baseline forecast represents a continuation of the airport's current role in the region and in the national transportation system. The baseline forecast represents the most likely scenario and will be used for future planning. An alternative scenario(s) can be used as a sensitivity analysis to assess the ability of the airport to respond to optimistic demand factors that depart from the baseline forecast."*

337. Therefore, ACI is not advocating a completely qualitative approach.

- The Azimuth study does not provide a detailed market assessment (rather, anecdotal evidence about the size of selected niches).
- Interviews only covered a small selection of current UK operators.
- No attempt has been made to establish a solid traffic base (from which Manston could seek to capture market share).
- The ACI study suggests that historic traffic performance should inform baseline projections, rather than be disregarded. Alternative scenarios are more appropriate for the types of optimistic demand factors incorporated in the Azimuth forecasts.

[145] (Azimuth Associates, 2017 c)
[146] (Airports Council International - North America, 2013)

338. The ACI study (Page 50) goes on to highlight the different demand data that should be considered, including segmenting tonnage by origin/destination, commodity, desired level of service[147] and shipment size.

339. Key factors to consider are summarised on Page 52, including regional demographics, regional employment and production, regional industrial location patterns, shifts in commodity demand and shifts in distribution practices and patterns.

340. A more balanced assessment of the ACI guidelines is that both qualitative and quantitative methods play an important role in the development of air cargo forecasts. It is not our reading that ACI proposes that a purely qualitative approach is sufficient.

341. On Page 3 of its report, Azimuth makes reference to the Airport Commission:

> *"The Airports Commission also recommends using the Delphi Method, pointing out that relying on, "a single, central-point forecast would be a risky approach" (Airports Commission, 2013, p. 8)."*

- The Airports Commission developed multiple scenarios in its traffic forecasts.
- However, despite this, only one scenario is presented in the Azimuth projection.

342. Volume III also refers to York Aviation and Transport for London analysis (Page 1). As highlighted previously and as supported by York Aviation themselves (see paragraph 235), Azimuth makes incorrect interpretations from the studies.

343. Azimuth also quotes selected secondary data in support of its forecasts. On Page 4, it quotes a one month snap shot of global freight volume growth from November 2016. In the context of long term forecasts for Manston, this is meaningless.

344. Boeing and Airbus freight forecasts are also highlighted.

- Boeing and Airbus are both leading industry bodies which regularly publish air cargo forecasts.
- Boeing on a bi-annual basis (most recent in 2016).
- Airbus, annually (most recent in 2017).
- Note that both forecasts are in units of flown tonne-km – a combination of the tonnage of cargo flown and the distance it is flown for (as such, changes in the average sector length would affect the forecasts). The tonne-km forecasts include both bellyhold and cargo carried on dedicated freighters (though these are not separated in the projections).

345. Global Airbus projections are then used as the source for a simplistic annual growth for Manston for years 11-20 of the Azimuth forecast.

- There are obvious difficulties in comparing growth rates for tonnage at a UK airport (in a mature market) with global freight tonne-km projections (which include forecast growth in faster growing economies).

346. We have undertaken a more in-depth review, outlined in the paragraphs below.

347. In its latest forecast, Boeing predicts air cargo growth of 4.2% CAGR over the period 2015-35[148]. The most recent Airbus forecast, for the period 2016-36, gives a CAGR of 3.8%[149].

[147] Trade-off between the cost and the quality of service as determined by transit time, reliability and security, often compared to the same characteristics for available surface options.
[148] (Boeing, 2016, p. 2)
[149] (Airbus, 2017a, p. 101)

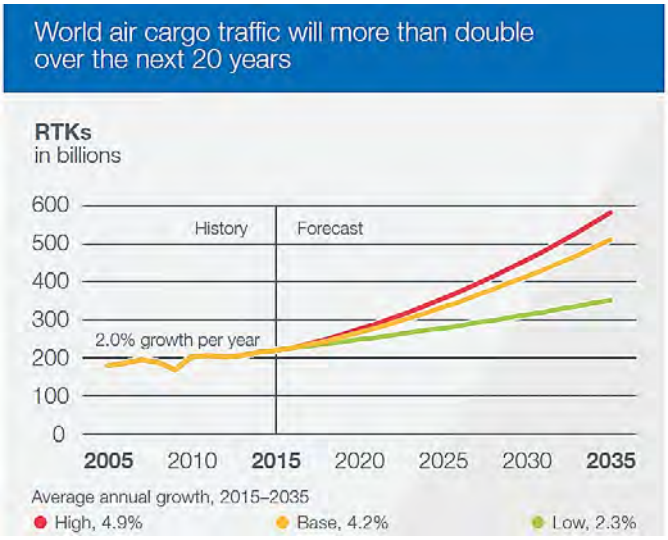


Figure 20 – Global 20-year air cargo forecast - timeseries of high, base and low forecasts

Source: Boeing

348. Boeing also provides a regional breakdown of expected growth rates[150]. For the flows involving Europe, most are below the global average CAGR. Growth of intra-Europe air cargo is forecast to be the lowest of any regional flow shown (2.2%). This indicates global growth projections need to be treated with caution in the context of the UK market.

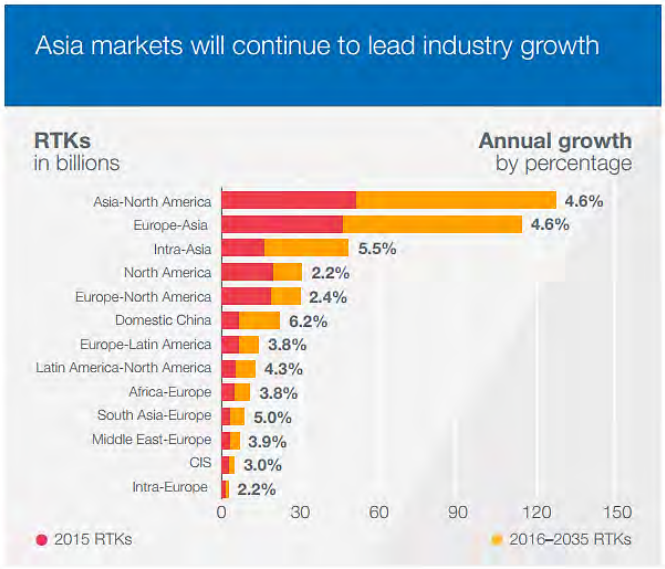


Figure 21 –Global 20-year air cargo forecast – size, and growth rates, of key flows

Source: Boeing

349. While Airbus and Boeing forecast strong growth in tonne-km in future years, it should be noted that only limited growth in freighter aircraft is envisaged for European based airlines. Airbus forecasts growth of just 42 freighters in European fleets by 2036[151] (Boeing does not appear to provide an equivalent number).

350. History shows that Airbus and Boeing forecasts tend to be optimistic. Boeing has reduced its 20-year forecast of growth in every iteration since at least 2010/11, while Airbus has reduced forecast growth in

[150] (Boeing, 2016, p. 16)
[151] (Airbus, 2017a, p. 105)

every iteration since at least 2012. This has resulted in lower tonne-km at the end of each forecast e.g. the 2017 version forecasts lower tonne-km for 2036 than the 2015 version forecast for 2034.

351. Similarly, the number of dedicated freighter aircraft Airbus expects to be in operation by the end of its 20-year forecast has been reduced by around one third, from ca 3,000 (based on the 2012 forecast[152]) to ca, 2,000 (based on the 2017 forecast[149]). We note this downgrading of freighter outlook has not been mentioned in the Azimuth reports, notwithstanding its use of Airbus cargo projections.

- Note the drop of one third in the number of freighters expected to be operating in future is greater than the drop in its cargo tonne-km CAGR forecast, implying increasing dependence on bellyhold capacity to meet air cargo demand. This is consistent with historic trends, highlighted previously in this report.

352. Alongside the figures discussed above, Boeing publishes high and low forecasts. These show global air cargo CAGRs of 4.9% and 2.3% respectively. Notice that the downside (-1.9ppts) is significantly larger than the upside (+0.7ppts). Notwithstanding the differences in geography and forecast units highlighted previously, our projections for the UK sit within this range (CAGR 2.5% for same time period as Boeing projection).

353. Both the consistent reductions of the forecast numbers with each new iteration, and the large potential downside (relative to upside), indicate some uncertainty for the sector in the future.

8.6. Manston Air Freight Forecasts (Volume III)

354. Given the lack of transparency in the Azimuth forecasts, it is not possible to undertake a detailed critique of the forecast building blocks / assumptions. The only breakdown provided is by imports and exports. There is no segmentation by carrier type, commodity type etc.

355. The freight forecasts for Manston are summarised in the chart below.

- In Year 2 (the first year of freight traffic), tonnage is forecast to be more than double the previous Manston peak annual value.
- By Year 11, freight throughput is forecast at similar tonnage to 2016 Stansted performance. Growth from Year 2 to Year 11 is forecast at CAGR 9.7%.
- By Year 18, Manston is forecast to exceed the 2016 freight tonnage at East Midlands Airport (the largest dedicated freighter hub in the UK).

[152] (Airbus, 2012, p. 137)

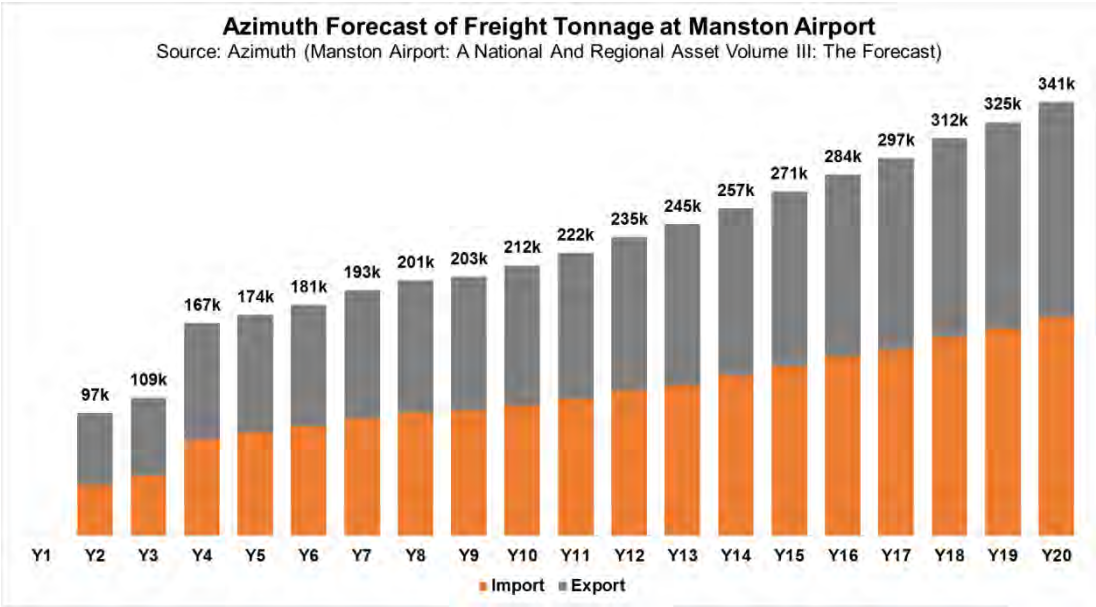


Figure 22- Azimuth Forecast of Freight Tonnage at Manston Airport

356. We have contrasted the projected air freight growth with historic Manston growth, historic UK growth and our base case demand projections for the UK.

- By year 20 of the Azimuth forecasts (assumed to be 2039), Manston freight throughput is forecast to have grown by almost 12 times the 2013 outturn (the last full year of operations). The equivalent CAGR from 2013 is 9.9%.
- This compares to our projected demand growth for the UK market of 2.3% over the same period.

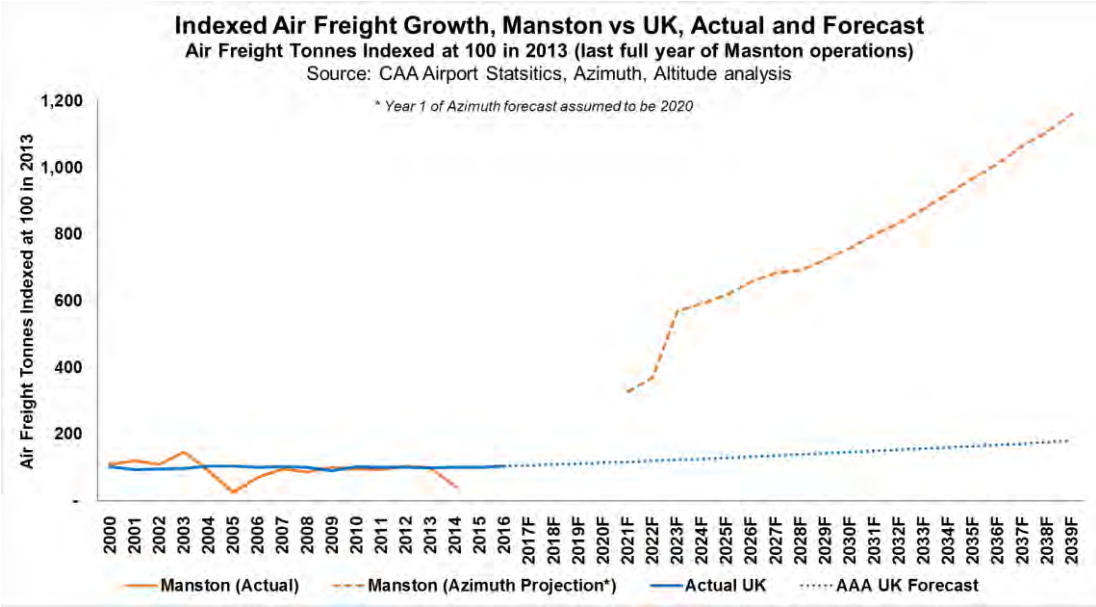


Figure 23- Azimuth Forecast Compared to Historic Growth and UK Forecast

357. We have also compared the Azimuth projections for Manston to the 2016 performance at the leading air freight airports in the European Union.

- The projected volumes for Manston by year 5 would see it comfortably within the top 20 EU airports in 2016.
- By year 20, Manston's projected volumes would be higher than all but the 12 largest EU airports in 2016.
- 19 of the airports in the top 20 are either major/large passenger hubs or major integrator hubs. The one exception is Luxembourg, the home base of Cargolux, which is one of the largest all cargo airlines in the world with a fleet of 27 freighter aircraft[153]. Given that Manston is not expected to develop into either a passenger or an integrator hub, this shows the level of ambition in the Azimuth projections.

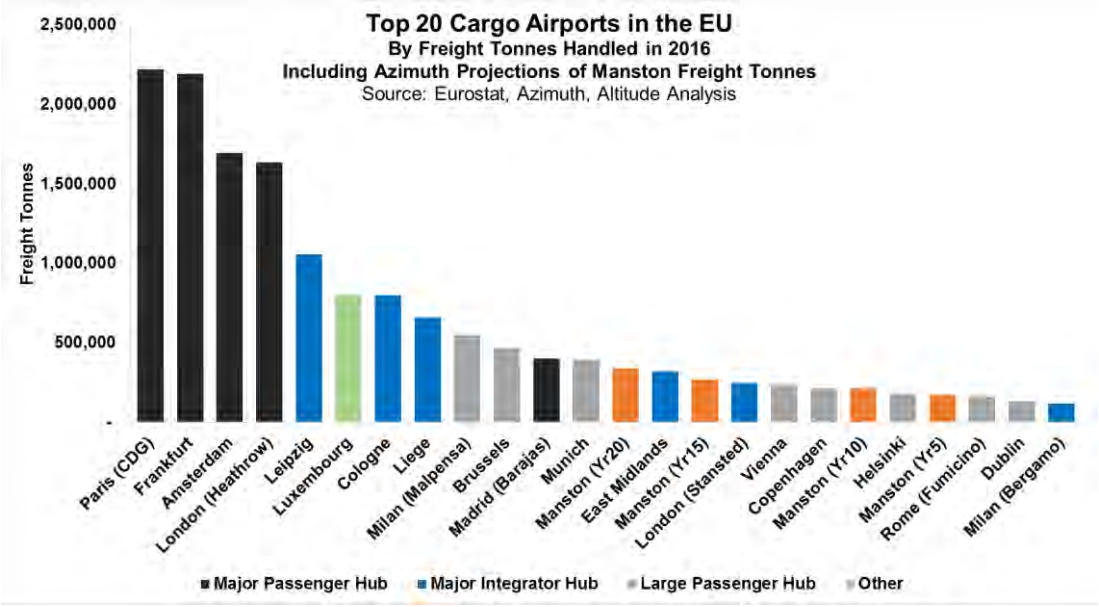


Figure 24- Azimuth Forecast Compared to EU Air Freight Benchmarks

358. Not surprisingly, we consider the forecasts to be not credible, given their extreme optimism and the negligible supporting evidence.

- Growth in freight at Manston would be unprecedented in a UK market context, and in complete contrast to previous historic performance at Manston.
- We do not expect there to be an overall shortage of freighter capacity in the UK or South East. Even if we are wrong in this assessment, Manston and other smaller airports have shown no signs of benefiting from supposed capacity shortages in recent years.
- The rationale for why Manston will be able to achieve a massive uplift on previous performance is weak at best. There is no evidence that bellyhold will not continue to dominate the UK market. The stated advantages of using Manston were present when the airport struggled to grow freight volumes, despite investment in the airport. Lack of capacity was not a material factor.
- As well as the forecasts ignoring historic performance, it also does not reflect the very clear market trends towards consolidation of freight at major passenger and dedicated freighter hubs. UK airports outside the major three freight airports have seen volumes fall.

[153] Ranked the 9th largest cargo airline in the world in 2016 (source: aircargonews). Source for Cargolux fleet is the Cargolux website.

359. There also seems to be a discrepancy between the methodology description and the long term forecast results. On Page 7 it is stated:

> *"Therefore, from Years 11 to 20 an annual percentage growth has been applied to the figures derived for Year 10."*
>
> *"However, to be conservative, and in line with the Airbus forecast, a 4% uplift on the Year 10 figures has been applied to extrapolate the long-term forecast for Manston Airport. "*

360. We therefore expected that long term growth for Manston (Year 11 onwards) would be 4%. The Year 10 to Year 20 CAGR is 4.8% (adding ca. 25,000 tonnes by Year 20, compared to a 4.0% CAGR).

361. As highlighted previously, there are significant issues with using a simplistic annual growth uplift based on global manufacturer forecasts for global tonne-km. Further issues are:

- The manufacturer forecasts have a track record of optimism, and have consistently been revised down in later iterations.
- The Airbus forecast referenced has since been updated, with growth of CAGR 3.8% (lower than the forecast used by Azimuth).
- There is significant variation in growth rates for different parts of the world, with the European market more mature than average. Within the European context, the UK is one of the more mature markets. Therefore, use of a global figure is likely to significantly overstate demand growth in the UK and is not an appropriate tool for looking at demand in the UK market.
- While Airbus and Boeing forecast strong growth in tonne-km in future years, it should be noted that only limited growth in freighter aircraft is envisaged for European based airlines. Airbus forecasts growth of just 42 freighters in European fleets by 2036[154] (Boeing does not appear to provide an equivalent number). Therefore, demand in the most relevant segment for Manston is likely to be lower than the overall average.

362. We are also surprised to see imports and exports almost entirely balanced in the Azimuth forecasts.

- Exports were a minority of overall freight before Manston was closed. Exports accounted for between 6.0% (2010/11) and 24.3% (2004/05) in the last 11 years of operation. The average export percentage in the period 2002/03 to 2013/14 was 12.6%.
- The UK is generally an import rather than an export market for goods. HMRC[155] data indicates that exports accounted for 37.5% of total UK air freight to/from non-EU countries by weight in 2016.
- Therefore, the assumption that flights will be equally loaded for both inbound and outbound operations seems very optimistic.

[154] (Airbus, 2017a, p. 105)
[155] www.uktradeinfo.com/Statistics/BuildYourOwnTables/Pages/Table.aspx

8.7. Manston Cargo ATM Forecasts (Volume III)

363. The Azimuth forecasts also include freighter ATM projections, summarised below.

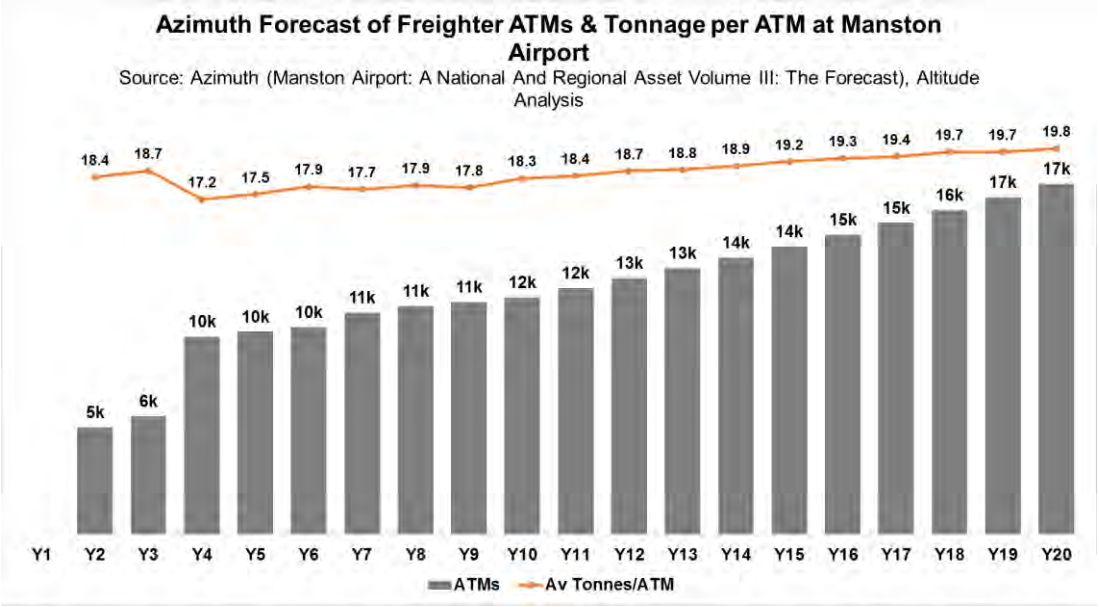


Figure 25- Azimuth Forecast of Freighter ATMs & Tonnage per ATM at Manston Airport

364. The tonnes per ATM forecast figure (ca. 17-20 tonnes) is very low compared to historic levels at Manston. In the last full 5 years of operation, the airport recorded an average of 63 tonnes per cargo ATM.

- The low figure is driven by an assumption that the most predominant cargo aircraft at Manston will be smaller Code C and Code D aircraft. We understand that this differs to the historic pattern, explaining the difference in average loads.
- The projected average load is slightly above current Stansted levels. However, given the lack of integrator operations at Manston, we would have expected the average load figure to be higher.
- As an illustration, if the average load in Year 20 was consistent with historic levels, the same forecast freight tonnage (340,000 tonnes) could be handled by ca. 5,400 cargo flights.

365. We note that York Aviation's professional opinion[156] is that the capability of Manston Airport is 21,000 annual air cargo aircraft movements. This figure is higher than the Azimuth's Year 20 freighter ATM forecast for Manston.

- This is despite very optimistic cargo tonnage projections and average cargo per ATM assumptions that are much lower than historic values.

[156] (York Aviation, 2017)

366. The cargo ATM forecasts have also been compared to leading European airports. This emphasises the extremely challenging nature of the Azimuth forecasts. By year 20, the projected cargo ATMs at Manston are higher than achieved by all but 6 EU airports in 2016. Again, it is noticeable that the leading EU airports for cargo ATMS are either major/large passenger hubs or major integrator hubs, which are not the business models proposed (or that would be realistically achievable) for Manston.

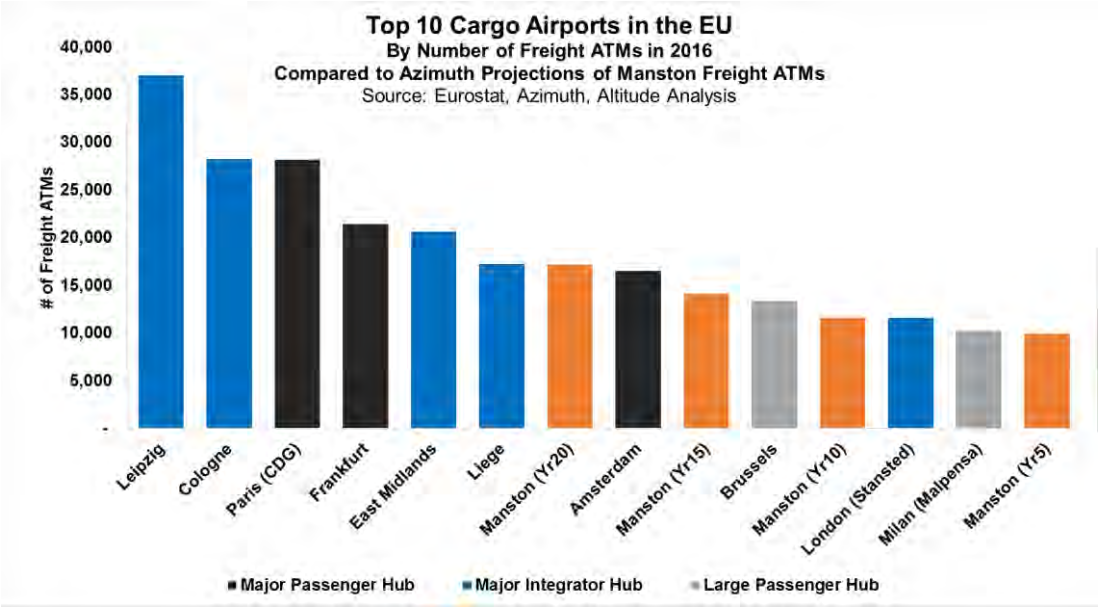


Figure 26- Azimuth Forecast Compared to EU Freighter ATM Benchmarks

367. Finally, we also compare the average air freight tonnes per cargo ATM projected for Manston with leading EU benchmarks. Note that the air freight total includes bellyhold as well as freighter cargo.

368. The projections for Manston indicate low average loads compared to the leading EU airports, with the exception of some integrator hubs (which have a higher proportion of smaller aircraft for short haul flights, reflecting the nature of the express market). This sheds further doubt on the validity of the Azimuth projections for cargo ATMs. If the average loads were higher, this would result in lower cargo ATMs for the same air freight tonnage.

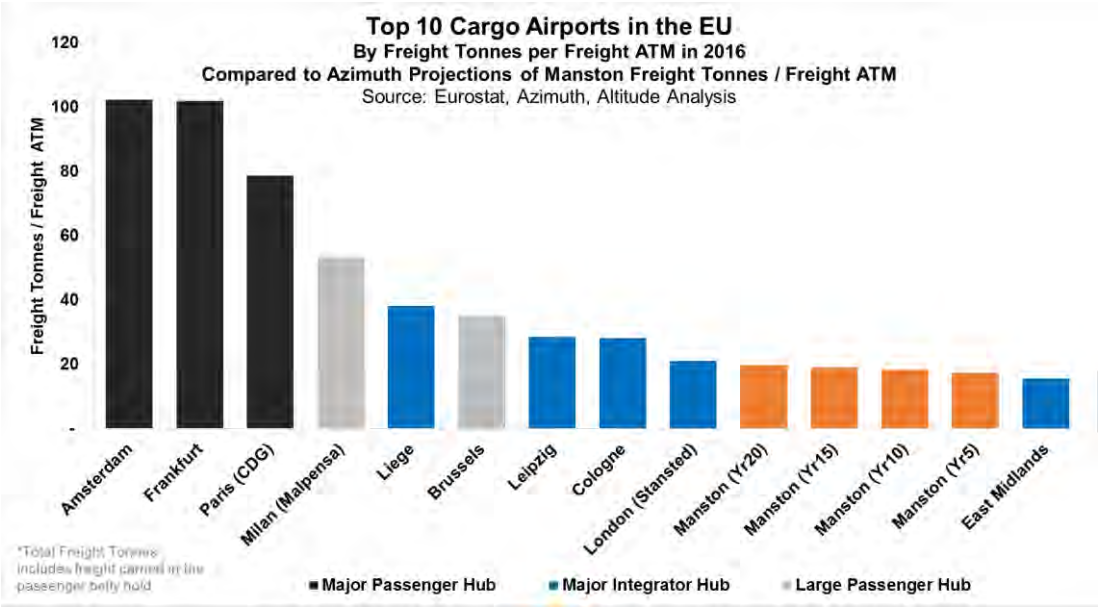


Figure 27- Azimuth Forecast Compared to EU Air Freight Tonnes per Freighter ATM Benchmarks

8.8. Conclusion

369. It is highly unlikely that a re-opened Manston could play any significant role in serving the needs of the UK air cargo industry. There is currently no shortage of overall capacity (beyond that identified specifically at Heathrow), and future demand growth into the long term can be met with planned expansion from the leading cargo airports in the UK.

370. Manston previously operated as a niche air freight airport. While it could theoretically regain this role in the future, its structural disadvantages (location, lack of critical mass, lack of passenger hub, night flight restrictions etc.) will severely limit its potential.

371. Our overall conclusion is that the RSP proposals and the Azimuth forecasts are deeply flawed. The outlook put forward by RSP / Azimuth does not reflect market realities. We would expect freight tonnage and freight ATM outturn at a reopened Manston to be considerably below the Azimuth forecasts. We see no realistic prospect that Manston could ever develop to reach the threshold required of a Nationally Significant Infrastructure Project, namely to increase cargo ATMs by at least 10,000/year compared to the existing capability.

9. Overall Conclusion

372. It is highly unlikely that a re-opened Manston could play any significant role in serving the needs of the UK air cargo industry. There is currently no shortage of overall capacity, and future demand growth into the long term can be met with planned expansion from the leading cargo airports in the UK.

373. The Azimuth freight forecasts for Manston are summarised below:

- In Year 2 (the first year of freight traffic), tonnage is forecast to be more than double the previous Manston peak annual value.
- By Year 11, freight throughput is forecast at similar tonnage to 2016 Stansted performance. Growth from Year 2 to Year 11 is forecast at CAGR 9.7%.
- By Year 18, Manston is forecast to exceed the 2016 freight tonnage at East Midlands Airport (the largest dedicated freighter hub in the UK).

374. We consider the forecasts to be extremely optimistic and not credible, with negligible supporting evidence.

- Growth in freight at Manston would be unprecedented in a UK market context, and in complete contrast to previous historic performance at Manston.
- We do not expect there to be an overall shortage of freighter capacity in the UK or South East. Even if we are wrong in this assessment, Manston and other smaller airports have shown no signs of benefiting from supposed capacity shortages in recent years. Furthermore, there is demonstrable spare capacity at Stansted and East Midlands, both better established and located.
- The rationale for why Manston will be able to achieve a massive uplift on previous performance is weak. The stated advantages of using Manston were present when the airport struggled to grow freight volumes, despite investment in infrastructure and marketing (the previous owners invested £7m on new aprons and taxiways, increasing the freight capacity to 200,000 tonnes[157]). Lack of Manston capacity was not a factor.
- As well as the forecasts ignoring historic performance, they also do not reflect the very clear trends towards consolidation of freight at major passenger and dedicated freighter hubs. UK airports outside the major three freight hubs have seen volumes fall. There is also a trend away from freighter services towards bellyhold freight.

375. Manston previously operated as a niche air freight airport. While it could theoretically regain this role in the future, its structural disadvantages (location, lack of critical mass, lack of passenger hub, night flight restrictions etc.) will severely limit its potential. Even if reinvested, relaunched and supported we would not expect freight volumes to be materially above historic levels, and nowhere close to the volumes forecast by Azimuth.

376. Finally, the forecast of freighter ATMs is not credible.

- By year 20, ca. 17,000 freighter flights are forecast for Manston.
- This represents one-third of current UK freighter flights, in a market where the number of freighter ATMs has been contracting. This trend has been recognised by the Department for Transport, with its 2017 forecasts to 2050 assuming the number of freighter flights in the UK will remain flat at 2016 levels [158].

377. In particular, we note that York Aviation's professional opinion is that the capability of Manston Airport is 21,000 annual air cargo aircraft movements. We would envisage that freighter ATMs at Manston would

[157] (Wiggins Group plc, 2002, p. 16)
[158] (Department for Transport, 2017a, p. 33)

be only a fraction of the level required under Section 23 of the Planning Act of 2003 (being at least 10,000 ATMs/year above the existing capability).

378. In paragraph 48, we put forward four questions in relation to the RSP proposals for Manston. These are more relevant and targeted than the broader questions posed by Azimuth in its first report[159]. The answers to our questions have been developed over the course of this report. We summarise our conclusions in the table below.

Question	Response
Considering planned airport expansions, will there be a need for further airport capacity in the UK for dedicated freighters?	No, planned expansions at existing airports should comfortably provide sufficient freighter capacity until 2040 and beyond.
Will the South East in particular require additional capacity for dedicated freighters?	No, Stansted is planning significant capacity growth. A third runway at Heathrow will provide additional bellyhold capacity (putting downward pressure on freighter demand). Finally, the South East market can be well served by airports more centrally located in England.
Would a reopened Manston be well placed to effectively serve a significant proportion of the dedicated freighter market?	No, a reopened Manston would only serve a niche role, similar to its historic record. It has a poor location and operating restrictions.
Are there other potential airport options for new dedicated freighter capacity?	Yes, there are many UK airports with excess freighter capacity. For example, Doncaster Sheffield Airport has a central UK location. It markets itself as the UK's freighter gateway. It benefits from a large site with a long runway, and has 24 hour operations.

Table 3 – Summary of Analysis of Potential Future Freight Role for a Reopened Manston Airport

379. As can be seen above, when one asks more targeted questions, the outcome is very different to that presented by Azimuth. Our overall conclusion is that the RSP proposals and the Azimuth forecasts are deeply flawed. The outlook put forward by RSP / Azimuth does not reflect market realities. We would expect freight tonnage and freight ATM outturn at a reopened Manston to be considerably below the Azimuth forecasts. We see no realistic prospect that Manston could ever develop to reach the threshold required of a Nationally Significant Infrastructure Project, namely to increase cargo ATMs by at least 10,000/year compared to the existing capability.

[159] (Azimuth Associates, 2017 a, p. I)

10. Appendix - Overview of the Cargo Industry

10.1. Modes of Transport for Transportation of Cargo

380. Air cargo makes up only a small proportion of global cargo (by tonnage). Seabury estimated that in 2016, air cargo had a share of just 1.5% of containerised air and sea trade[160]. For international transit in particular, sea is the dominant mode of cargo transport.

381. In many cases, cargo reaches its destination using a mix of modes. Road and rail are commonly used to collect cargo from many different shippers across a large geographic area, and bring it to a central hub for consolidation, before onward shipping by air or sea (with a similar process occurring at the other end of the air/sea journey in order to distribute cargo to consignees).

382. The different modes of transport each have inherently different costs associated with them, usually related to speed of transit and quantity of product being moved. Air (a relatively fast and relatively low-quantity mode) is more expensive than sea (a relatively slow mode capable of moving vast quantities of product at a time). Generally, products that make use of air transportation are high-value and/or time critical, and can be easily packaged.

383. Transportation of high value items by air helps businesses maximise profits by minimising the time for which its inventory is tied up in supply chains. For high value items, the benefits of being able to quickly realise the value of product inventory and reinvest can outweigh the additional cost of air transport. As such, the proportion of global trade that travels by air is much greater when measured by value (ca. 35%[161]), than when measured by tonnage.

384. For time critical products, the trade off between a) the cost of transport, and b) the deterioration in the value of the product with time, can be a key factor in determining what mode (or modes) to use. Products such as flowers, newspapers and some pharmaceuticals have no value if they are not available to consumers a short period after they are shipped. For these products, air is often the only viable mode of transport.

385. The nature of the cargo, or its physical size, may also influence mode choice (for example heavy plant machinery may be too large for air transport, while air transportation of many substances is restricted or prohibited).

[160] (Seabury, 2017, p. 4)
[161] (IATA, 2017a, p. 5)

10.2. Types of Air Cargo

386. Whilst there are many different types of air cargo, at a high level, most can be categorised as one of general freight, express or mail.

- Mail is typically letters and parcels, delivered to final destination by the postal service of a given country.
- Express cargo is typically 'next-day' shipments that are collected from the shipper by close of business and are required by the consignee by close of business the following day.
- General freight is everything else (note that general freight is a very broad category which also includes several types of low volume specialist cargo such as hazardous, valuable and live animal freight).

387. The air cargo market is served by various different business models. These include:

- Cargo-only airlines, such as Cargolux, which operate aircraft carrying only cargo.
- Integrators, such as DHL Express, which facilitate cargo transportation from shipper through to consignee, and typically own/lease and operate the vehicles necessary to achieve this (and which carry only cargo). Integrators tend to have a focus on express cargo.
- Traditional airlines such as British Airways, which carry cargo on their passenger flights (known as bellyhold cargo). These carriers may additionally operate cargo-only flights (in which case they are known as combination carriers).
- Couriers and road hauliers, which move cargo between the shipper/consignee and the airport hubs.
- Freight forwarders, which typically help shippers to organise the transport of freight, but do not take part in actually moving it.

388. Steer Davies Gleave was commissioned by the UK Department for Transport to improve its understanding of the UK air cargo industry. Its report, 'Air Freight: Economic and Environmental Drivers and Impacts' provides a breakdown of the UK air cargo market in 2008, by type of cargo and type of carrier – see below. General cargo and specialist products accounted for 75% of the market, express for 18% and mail for 7% (all by tonnage)[162].

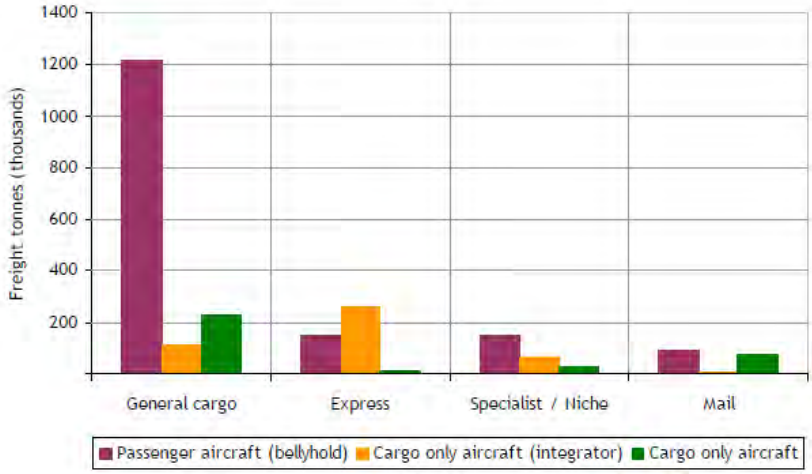


Figure 28 - UK air cargo in 2008 by type of cargo and type of carrier

Source: Steer Davies Gleave [2010], AIR FREIGHT Economic and Environmental Drivers and Impacts

[162] (Steer Davies Gleave, 2010, p. 47)

Bellyhold Cargo

389. A commercial passenger aircraft has a considerable amount of space underneath the passenger cabin, used to store the checked baggage of passengers. The checked baggage generally does not utilise all this space, and some airlines choose to generate additional revenue by filling it with cargo.

390. The routes operated, the aircraft used, and flight timings are typically determined by passenger demand. However, passenger demand does not always align with cargo demand. Some routes may have very little cargo demand, while others may have much more than can be accommodated.

391. The revenue generated from bellyhold cargo can be a significant minority of overall revenue. Furthermore, carrying bellyhold cargo does not substantially increase costs (for example, the aircraft itself and the crew, the landing fees etc are incurred with or without the cargo).

392. Bellyhold cargo can therefore offer an airline a significant revenue upside opportunity, with little downside risk (as long as the airline is careful to price cargo to cover the incremental cost of carriage e.g. increased fuel burn).

393. Loading and unloading cargo from the aircraft can make very short turnaround times impossible to achieve. Therefore short haul low cost operations, which rely on very high aircraft utilisation to achieve profitability, typically do not to carry bellyhold cargo.

394. The capacity available for cargo in the bellyhold of passenger aircraft is difficult to estimate. It depends on many factors, including how many passenger and crew bags there are to accommodate (and how heavy they are, and how efficiently a given airport's staff loads those bags), the volume of fuel needed, the temperature and altitude of the departure airport, the type of engines etc. Many of these factors vary significantly from departure to departure, even if the exact same aircraft hull is used.

395. Complicating matters is that the limiting factor on the amount of cargo that can be uplifted depends on its density. One flight may depart with a bellyhold that is physically full but with spare weight capacity. Another may depart with space available in the bellyhold but not able to carry more weight. Reporting of air cargo load factor typically states only the weight used versus the overall available weight.

Cargo Carried on Cargo Aircraft

396. A cargo aircraft (or freighter) is operated purely for cargo, and carries no commercial passengers. Most of the aircraft used are very similar to commercial passenger aircraft, with the exception that all seats and overhead storage, carpets, toilets, galleys etc. are removed from the space that is normally the passenger cabin; this space is then filled with cargo. Additionally, as there is no checked baggage, all space underneath the passenger cabin is available for cargo. For example, a 747-400 cargo aircraft can carry multiple times more freight than a 747-400 passenger aircraft.

397. As there are no commercial passengers on a freighter aircraft, the size of aircraft operated, the routes and the timings are all chosen to fit cargo demand.

398. IATA highlights the higher average yield from freight carried on cargo-only aircraft in comparison with that carried in the bellyhold of passenger aircraft:

> *"At an aggregate industry level, cargo-only services have exhibited a greater sensitivity to fuel price changes. Cargo only services on average earned a premium of 10% in 2014 over belly hold services"*[163]

399. Note that the yield premium of freighters is not a comparison on a like for like basis. It will include, for example, the impact of freighters serving different markets.

[163] (IATA, 2015, p. 5)

400. The absence of commercial passengers also means that all costs must be covered by the revenue from cargo only. The impact of this on profitability (in comparison with bellyhold cargo profitability) is demonstrated in the following illustrative example (from a 2015 Seabury presentation on air cargo trends).

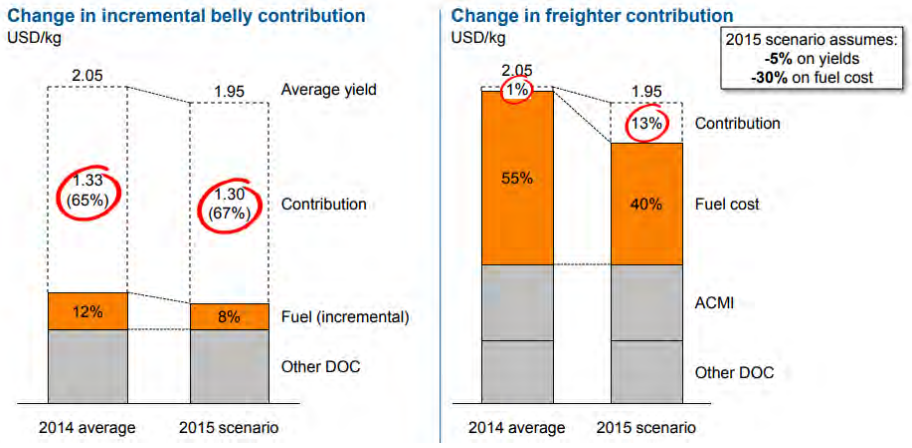


Figure 29 - Freighter vs bellyhold profitability, and impact of fuel price

Source: Seabury [2015], 'Air Cargo 2015: Recent trends and impact on air cargo industry'

401. In 2015, when carrying an item on a freighter, only 13% of revenue goes to profit. Carrying the same item at the same price, but as bellyhold cargo, results in 67% of the revenue going to profit[164].

402. Furthermore, it is seen that freighter profitability is more sensitive to fuel price than bellyhold cargo (fuel price reduced by 30% between 2014 and 2015; illustrative contribution increased by 12 percentage points ("ppts") on the freighter, but only by 2ppts for the bellyhold cargo)[164].

403. Whilst the current low fuel price environment means freighter profitability has increased, it also means future increases in fuel price could significantly reduce the profitability of freighter operations.

404. Another challenge for operators of freighter aircraft is that, unlike passenger demand, cargo demand can be highly directional. A freighter may be full on one sector, and carry very little on the return journey. Long haul freighters may operate circuitous routes with multiple stops (taking them literally all around the world in some cases), in order to minimise flying on sectors with low cargo demand.

405. Freighters may be scheduled (the flight operates regularly to a published timing and route), or charter services (a flight operated on a one off basis to meet irregular/unusually large demand e.g. moving Formula 1 race equipment between one race location and the next).

Trucking

406. The air cargo industry primarily uses trucking in one of two ways. There are road feeder services, operated to move cargo between the shipper/consignee and the airport hub, and there are trucks operated between airport hubs in place of flights.

407. According to Boeing, the use of road feeder services enables carriers to "*extend their networks and add scheduling flexibility*"[165].

408. Integrators generally operate their own road feeder services, while cargo-only and traditional airlines may use third parties (as well as accepting cargo from independent hauliers and couriers).

[164] (Seabury, 2015, p. 7)
[165] (Boeing, 2016, p. 31)

409. The book 'Moving Boxes by Air: The Economics of International Air Cargo' states that trucks operate between airport hubs in place of flights where and when "*the lower unit cost of operating trucks*"[166] makes it sensible to do so. For express freight, this can often be the case on shorter routes, as described by the Steer Davies Gleave report[167]:

> *"for distances of 400 – 500km, cargo will generally go by road. For distances above this, flights will be used, except at weekends, where many packages are only required on the Monday and so can be trucked. The circa 500km cutoff is a function of the integrators next day delivery guarantee."*

410. On such routes, relatively low aircraft utilisation (air transport of express freight is typically required overnight, but not through the day) combined with the lower time benefit of air transport, makes trucks a preferable option in many cases.

411. Regarding less urgent general cargo, the same report states[167]:

> *"Users of air freight with a requirement to send a consignment over 500 kilometres within Europe but without the need for next day delivery, will be likely to purchase a modal option other than air freight".*

412. The lower time benefit of air transport on short routes is derived from the high proportion of the total journey time that is taken up by sorting/handling and ground-based distribution; globally, the average air cargo flight accounts for just 33% of the average air cargo shipment time[168]. On routes with below-average flight times, this percentage falls even lower.

[166] (Morrell, 2011)
[167] (Steer Davies Gleave, 2010, p. 66)
[168] (IATA, 2017a, p. 7)

11. Appendix - Air Cargo Global Market Trends

11.1. Air Cargo Share of Global Cargo

413. While air freight had a share of 1.5% of the world's total air and sea freight in 2016, this share has been dropping during the period since 2000 (when air freight had a share of 2.5% of the global market). This is illustrated in the chart below[169]. Note that over the period 2013-16, air share of the global market has stabilised at ca. 1.5%.

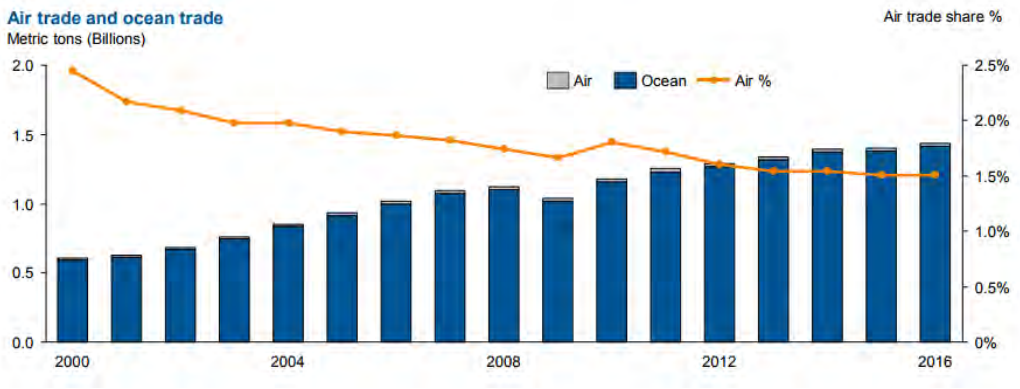


Figure 30 – Evolution of air and ocean freight tonnage with time

Source: Seabury

414. The 2008 financial crisis appears to have marked a shift in the nature of global trade. Before this point, sea and general air freight were growing strongly. In the period since 2008, growth of both has reduced dramatically (sea from 8.9% to 2.5% CAGR, general air freight from 4.3% to 0.9% CAGR). Conversely, the period since 2008 has seen rapid growth of express and mail air freight, as well as China-Europe rail (although these are from a much smaller base, particularly China-Europe rail)[170].

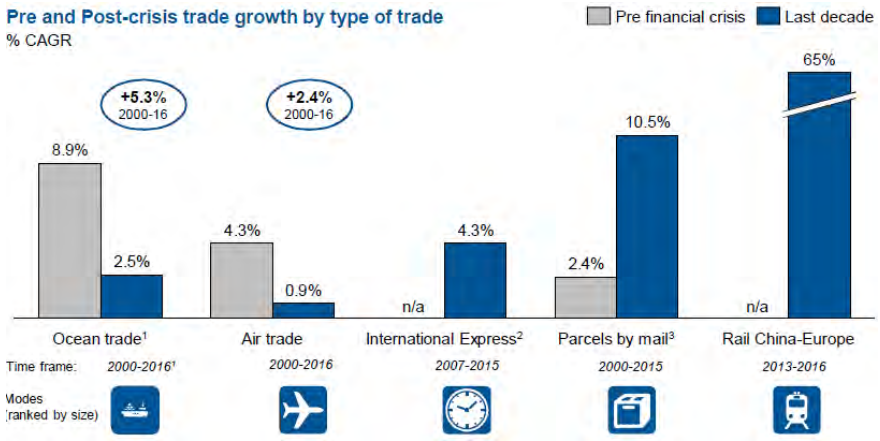


Figure 31 – Cargo growth rates by mode (pre- and post- financial crisis)

Source: Seabury

[169] (Seabury, 2017, p. 4)
[170] (Seabury, 2017, p. 23)

Trucking

415. Within Europe, the past decade has seen an increase in the use of trucking as a substitute for air transport. Referring to Europe, Boeing provides the diagram below, and states[171]:

> *"Since 2006, airport pairs of truck flights grew 3.1 percent on average per year. Weekly frequencies of truck-flights grew 14.3 percent on average per year between 2006 and 2013, but the growth has been at pause since 2013"*



Figure 32 – Example of the growth of trucking within Europe

Source: Boeing

416. The same source also refers to a rise in 'long haul truck-flight operations in Europe', claiming "*their dramatic rise over the past decade has clearly contributed to a decline in growth of scheduled freight carried by air*". Steer Davies Gleave provides data showing a similar trend over the period 2002-07[172]:

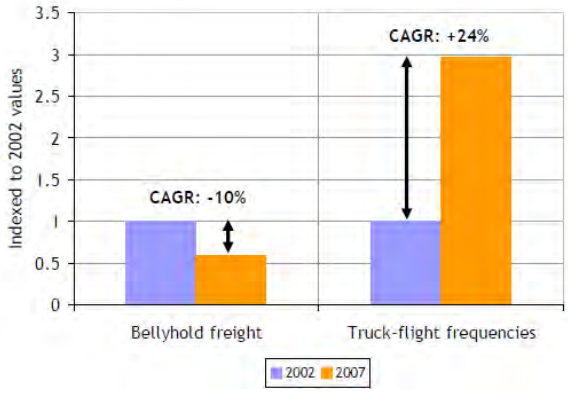


Figure 33 – Comparison of bellyhold airfreight tonnage and truck-flight frequency growth

Source: Steer Davies Gleave (2010), AIR FREIGHT Economic and Environmental Drivers and Impacts

[171] (Boeing, 2016, p. 32)
[172] (Steer Davies Gleave, 2010, p. 7)

11.2. Air Cargo Mix

417. Within air cargo, the low growth of general freight and the rapid growth of express and international mail is shown explicitly in the chart below[173]: Note that a significant proportion of the growth in general freight since 2008 occurred in 2010-11, and that growth of general freight since then has been lower (or even negative).

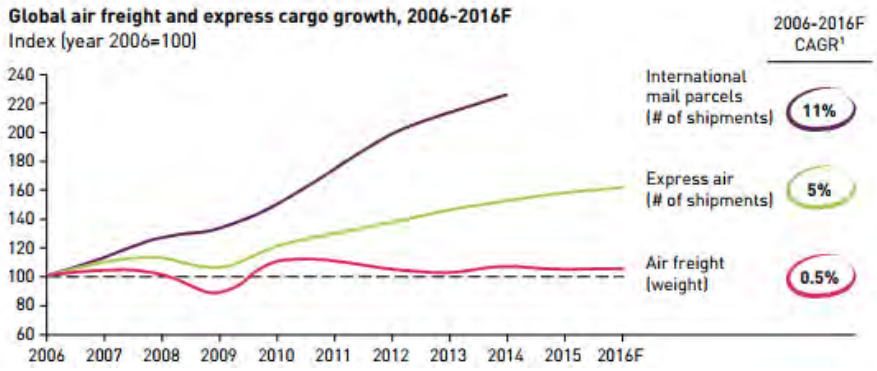


Figure 34 – Air cargo growth rates by type of cargo

Source: Seabury

418. Boeing confirms the relatively fast growth of express cargo[174]:

> *"International express traffic continued to grow faster than the average world air cargo growth rate, expanding 7.2 percent in 2014 and 3.6 percent in 2015".*

419. Within general freight, evolution of certain commodities has hurt air cargo volumes. For example, due to the miniaturisation of electronics, a modern laptop is significantly smaller and lighter than a personal computer from 1995, and so takes less space and weight to ship.

[173] (Seabury, 2016, p. 45)
[174] (Boeing, 2016, p. 7)

11.3. Bellyhold and Freighter Capacity versus Demand

420. In recent years, air cargo capacity has increased dramatically. This has been driven primarily by increased passenger demand resulting in an increase in the number of passenger aircraft (and therefore an increase in bellyhold capacity). Boeing states "*lower-hold capacity increased 27 percent from 2010 to 2015… the number of large freighters in service increased by 8 percent over this same period*"[175]. A similar trend is seen in the chart below from CAPA[176]:

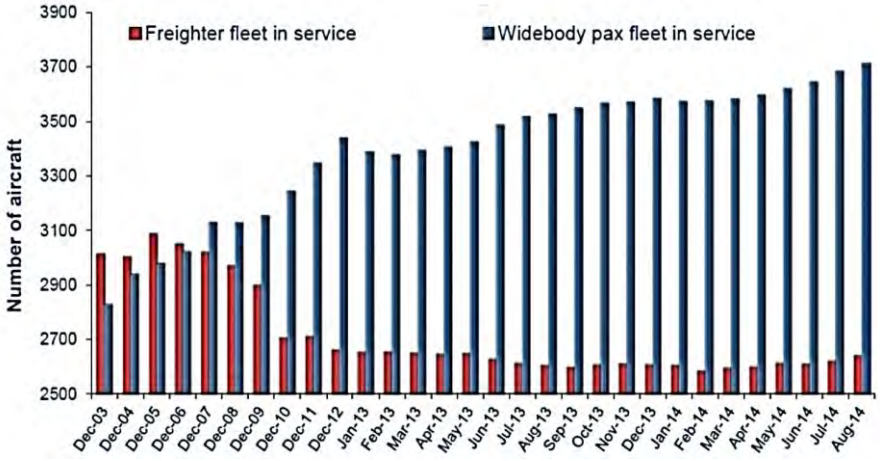


Figure 35 – Number of freighters and widebody passengers aircraft in service globally, Source: CAPA

421. The global financial crisis in 2008 had a significant impact on freighter numbers, while high fuel prices in the period 2011-14 is likely to have been a factor that kept freighter numbers depressed (see paragraph 400).

422. Whilst cargo capacity has been growing rapidly, cargo demand has not kept pace. This is illustrated by the fact that, as of Q4 2016, 15% of widebody freighter capacity globally was in storage[177].

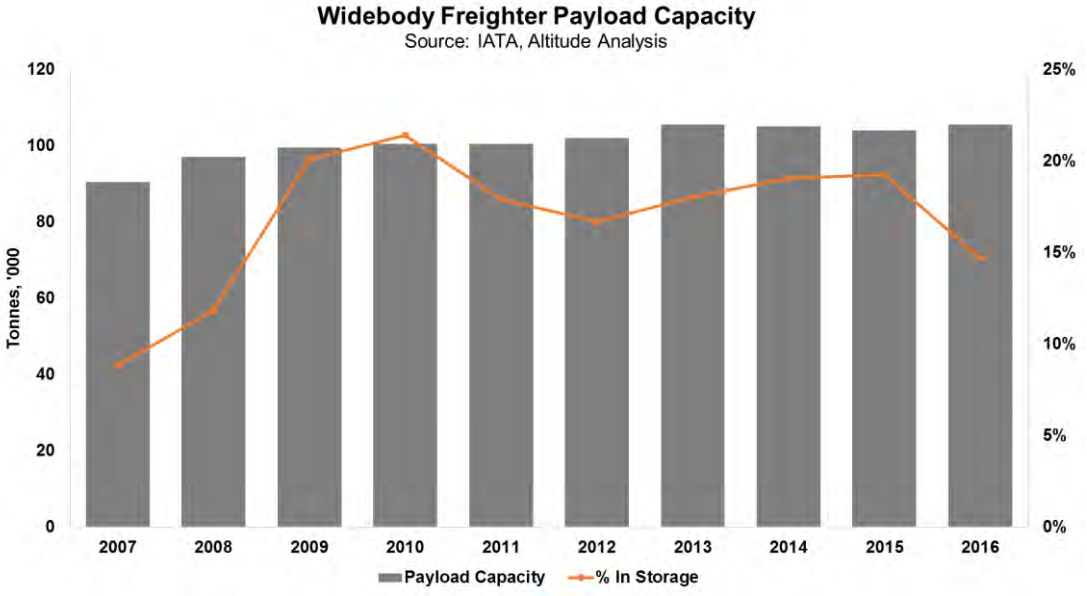


Figure 36 – Change in widebody freighter payload capacity with time

[175] (Boeing, 2016, p. 3)
[176] (CAPA, 2014c)
[177] (IATA, 2016, p. 3)

423. Additionally, the global average load factor achieved by airlines carrying cargo in the first 6 months of 2017 was just 45%[178]. Referring to bellyhold capacity, Airbus states that "*cargo load factors, on average, do not exceed 30 to 40% on international routes*"[179].

424. The chart below from IATA[180] shows the growth of both passenger and freight demand; since 2008, growth of passenger demand has far exceeded growth of cargo demand. This illustrates why growth of bellyhold capacity has outstripped that of freighters, why a number of freighters are being kept in storage, and why there remains significant amounts of unused cargo capacity.

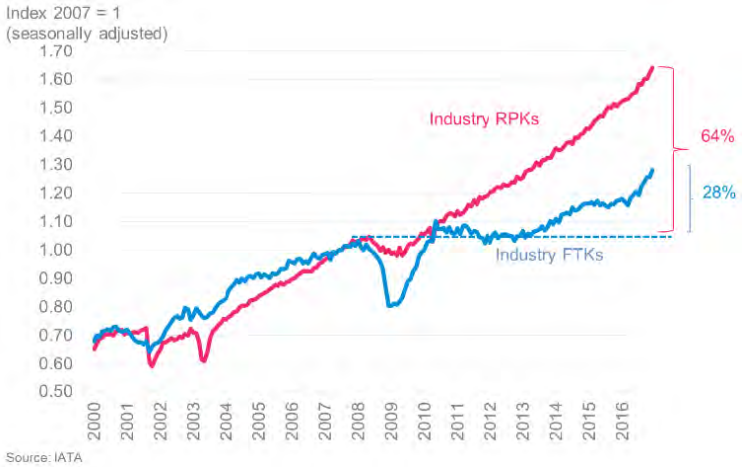


Figure 37 – Passenger growth compared with air freight growth, Source: IATA

11.4. Global Market Outlook

Outlook from Selected Carriers

425. The trend towards a reduced role for dedicated freighter aircraft (see Section 3.3) is reinforced by airline developments. In the text below, we provide selected examples of airlines cutting back on usage of freighter aircraft.

426. Luxembourg based dedicated freighter operator Cargolux (also in the world's top 10 air cargo carriers), acknowledges in its 2016 annual report the challenging operating environment it faces. The annual report also raises the possibility that dedicated freighter operators will not be viable in the future:

> *"There is clearly a current oversupply of capacity in the markets, which makes for a more challenging environment for cargo operators that have to achieve a healthy level of sustainable profitability…. There has been a modal shift from air freight to sea freight over the years whilst rail freight between Asia and Europe is an additional competitive challenge…. I also do not believe that it will be beneficial for shippers and forwarders if dedicated air freight operators were to disappear from the market."*[181]

[178] (IATA, 2017b)
[179] (Airbus, 2014, p. 35)
[180] (IATA, 2016, p. 3)
[181] (Cargolux, 2017, p. 7)

427. In 2014, the largest UK based combination carrier, IAG Cargo, decided to cease long haul flying using its own dedicated freighter aircraft (which had operated from Stansted).

> *"IAG Cargo CEO Steve Gunning said the carrier's dedicated cargo operations "made no profitable contribution" and the end of its freighter services will make the carrier "financially stronger""*[182]

428. Several other leading airlines are cautious about the prospects for the freighter segment. The following quotes are from a selection of combination carriers, all in the world's top 10 carriers of air cargo:

> *"Air France-KLM Martinair Cargo is pursuing its restructuring within a difficult economic environment. Air freight is being impacted by the situation of structural industry overcapacity…. the business is progressively retiring a portion of its full-freighter fleet to refocus most of its activity on the bellies of passenger aircraft. Within the framework of the Perform 2020 plan, this full-freighter fleet will thus be progressively reduced to five aircraft by 2017"*[183]

> *"Air France-KLM said freighters would become a "niche product" as cargo markets face continued overcapacity. Air France-KLM executive VP Erik Varwijk said slowing demand and greater belly capacity on scheduled passenger services made exclusive freighters redundant"*[184]

> *"Emirates VP cargo commercial operations Duncan Watson said the airline does not plan to add more freighter aircraft in the foreseeable future"*[185]

> *"Singapore Airlines Group subsidiary SIA Cargo faces another challenging year as conditions in the cargo market remain unfavourable. SIA Cargo has been unprofitable for seven of the past eight years, with losses further widening in recent quarters. Cargo capacity has been relatively flat since 2009, with additional belly space from passenger aircraft offsetting freighter reductions…. SIA Cargo is cutting its 747-400 freighter fleet in 1QCY2017, to only seven aircraft. At its peak in 2007 SIA Cargo operated 16 747-400 freighters. SIA will need to decide within the next few years whether to cut its freighter operation entirely or start investing in 747 replacements"*[186]

[182] (CAPA, 2014b)
[183] (Air France-KLM Martinair Cargo, 2017)
[184] (CAPA, 2014a)
[185] (CAPA, 2016)
[186] (CAPA, 2017)

12. Appendix - Case Studies of Leading European Cargo Airports

12.1. Context

429. In assessing the future potential of a re-opened Manston Airport, we have undertaken a review of Leipzig and Liege airports. Both are leading airports for all-cargo operations (rather than passenger hubs providing bellyhold capacity).

430. We have identified some of the key attributes that have helped Leipzig and Liege develop major roles within the European air cargo sector.

12.2. Leipzig

431. Leipzig Airport handled more than 1.0m tonnes of cargo in 2016. This throughput made it one of the top 5 cargo airports in Europe[187].

432. Leipzig is located in eastern Germany, ca. 100km from the Czech border and ca. 160km from the Polish border. Regarding its location, the airport states:

> *"[it is] located at the very heart of the central German logistics region…. [it is] an ideally located alternative to enter the growing markets in East Europe and Asia…. Besides outstanding infrastructural connections, the region is characterised by its motivated and qualified workforce and a high level of potential with regard to available space and investment"*[187]



Figure 38 - Trucking isochrones from Leipzig; 6hrs (dotted), 8hrs (solid-medium) and 10hrs (solid-thick)

Source: Leipzig Airport[188]

433. Leipzig Airport markets its proximity to eastern Europe as a benefit due both to the increasing economic power of this region, as well as the reduced flight time to Asia (compared with airports further west).

434. The airport has published a document stating trucking times to locations in eastern and western Europe. Only one of the ten examples given is within the 500km radius often considered as the realistic limit for express cargo. Three of these trucking destinations are over 1000km from Leipzig[189]. This gives some indication as to the possibilities for trucking of general cargo.

[187] (Leipzig Airport, 2017)
[188] (Leipzig Halle Airport)
[189] (Leipzig Halle Airport, 2014, p. 10)

435. Leipzig Airport has direct access to the European motorway network, and also has direct access to the rail network making rail-air transhipment possible.

436. The airport has two 3,600m runways, and operates cargo flights 24 hours a day. It has support from politicians at several levels for 24-hour operations. For example, the President of Saxony has said:

> *"Leipzig is in the second position of all hubs in Germany and this is why the state government and the city of Leipzig are convinced that 24 hours a day air traffic is necessary"*[190]

437. Note that this support appears to have been hard-won; the airport is reported to have spent ca. €100m on a noise control system, and is also said to be in regular communication with relevant stakeholders regarding noise[190].

438. DHL is one of the Leipzig Airport's largest customers. It decided to make the airport its European hub in 2004, began operations there in 2008, and now handles "*an average of 1,600t of cargo every day*"[191]. As of October 2016, DHL's total investment on its Leipzig hub was €655 million[192].

439. DHL Chief Executive Frank Appel said of Leipzig:

> *"It is in an excellent location, strategically positioned in the heart of Europe and is also in an excellent position to reach Asia and that is why we decided to expand our capacities here"*[190]

440. DHL's Leipzig hub manager is reported as adding other reasons for choosing Leipzig, including:

> *"the excellent road and rail connections, unrestricted night flights and a pool of skilled workers"*[190]

441. DHL operations support two of the airport's largest operators of scheduled cargo flights: EAT Leipzig is a wholly-owned subsidiary of DHL (it operates DHL's parcel and express flights, as well as providing adhoc charter services), while AeroLogic is a joint venture between Lufthansa and DHL (primarily operating long haul cargo-only flights for DHL).

442. The airport is also home to Ruslan Salis, a leading air charter company offering heavy lift services for large items of freight. A relatively large number of other carriers also operate charter cargo flights from Leipzig (34 are listed on the Leipzig Airport website). This indicates the airport is able to offer a competitive proposition for a wide range of different types of air cargo.

[190] (Air Cargo News, 2016a)
[191] (Saxony Economic Development Corporation, 2017)
[192] (Cargo Forwarder Global, 2016)

12.3. Liege

443. The airport handled 660,000t of freight in 2016, making it the 8th largest cargo airport in Europe (bigger than both East Midlands and Stansted). The majority of freight was general freight (ca. 56%), with express accounting for ca. 25%. Freight handled at Liege has grown at an average rate of 5.6% CAGR over the 4-year period 2013-16[193].

444. Liege's proximity to major population centres of northern Europe means that there are "*around 400 million consumers*"[193] within easy reach of the airport. This advantageous position means that 66% of all European freight transits through the region[193].

445. It has direct access to the motorway network. The airport states:

> *"Motorway transport is now the solution preferred by major logistics players and those specialised in the transport of goods in Europe…. The Flexport® is less than one day by truck from the largest European cities, thus reaching around 400 million consumers. It offers the advantage of an excellent, uncongested motorway network"[193]*

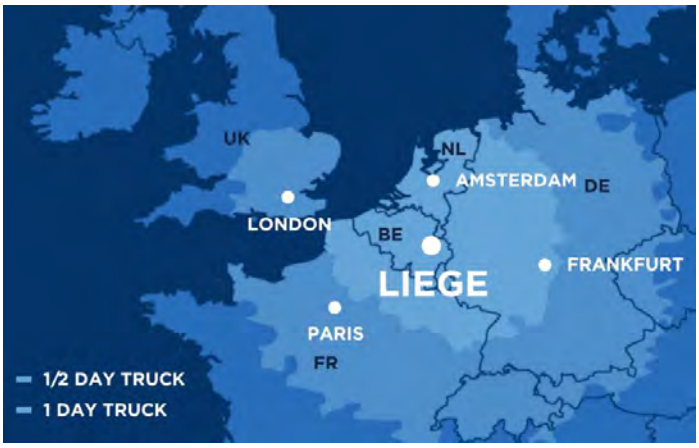


Figure 39 - ½ day & full-day trucking isochrones from Liege airport

Source: Liege Airport[193]

446. Whilst Liege benefits from an advantageous geographic location, the regulatory environment in which it operates is also conducive to air cargo; the airport operates 24-hours per day, 7 days per week:

> *"The other advantage at Liège is genuine 24 hour operations, an increasing rarity in Europe…. This does not just mean that the runway operates through the night but that there are no limits of any kind on the number of night slots that can be offered, and no extra charge for landing then…. This has been guaranteed by local government for 30 years and it is backed up by positive action, including purchasing and demolishing some houses under the flight path and spending heavily on noise insulation for others"[194]*

447. Note that when trying to construct a viable slot pair where one end of the route is a constrained airport, the ability to land at any time of day at the other airport can be particularly valuable. As more and more airports become constrained, 24-hour operation may therefore become increasingly important.

448. TNT is the main customer at Liege. Despite a recent buyout of TNT by FedEx, there appears to have been little loss of traffic to FedEx's handling facilities at other airports. This perhaps indicates that integrators are reluctant to shift location once their infrastructure investment has been made.

[193] (Liege Airport, 2017)
[194] (Air Cargo News, 2016b)

449. Other customers with significant tonnage at the airport include CAL, Ethiopian Cargo, Qatar Cargo, El Al Cargo and Icelandair Cargo. Similar to Leipzig, the diverse customer mix is indicative of the competitive proposition the airport offers.

450. The main runway is 3,690m long meaning many kinds of large cargo aircraft can take off at full capacity[195]. Whilst this is typically not necessary for express cargo carriers operating short-haul flights, it may be a key enabler for some long haul freighter operators.

451. Freight-only carriers also get advantages at Liege that they do not find at many other European airports. VP Commercial Steven Verhasselt said in 2016:

> *"The general trend is towards belly cargo but when you are operating a freighter, you want to fly into an airport dedicated to helping that type of cargo…. If we can save you a block hour from not having to taxi or wait for passenger airlines to land first, than [sic] that is a real cost saving and more important than cheaper landing or parking rates"*[196]

452. TNT and CAL both switched from Cologne to Liege in the 1990's "*attracted by Liege's strategy to focus on air freight in general and on the express business specifically*"[197], and are now amongst the largest of the airports customers.

453. The airport continues to expand its cargo handling facilities, with a new €4 million, 6,000m^2 cargo terminal due to open in 2017. It is also taking a role in the development of the 100+ hectares of land around the airport.

- For example, by forming a partnership – Land In Liege – with the land owner, which aims to "create synergies between the airport development and the development of the areas surrounding it"[198].

12.4. Conclusions

Leipzig and Liege airports are typical – albeit leading – integrator hubs. The airports are structurally different from Manston in many regards. There is no realistic prospect for Manston to develop a similar business model. However, without the cargo volumes associated with an integrator hub (or a major passenger hub), Manston will find it very challenging to generate significantly higher cargo throughput than historically achieved.

Liege / Leipzig Feature	Situation at Manston
Located close to motorway network, maximising catchment size.	Located on an A-road, ca. 40 miles from the motorway network (M20).
Catchment contains many of Europe's largest population centres.	Catchment is limited by the English Channel / North Sea.
24-hour operation.	Not clear but likely to be restricted.
Runway length of at least 3,600m, enabling largest aircraft to take off with full payloads.	2,750m runway, potentially limiting take-off payload for largest aircraft.
Significant investment in noise control measures.	Not clear.
Significant investment in cargo handling facilities.	Not clear.
Support from regional government.	Not clear.

Table 4 – Liege/Leipzig Structural Features vs Manston, Source: Altitude

[195] (Liege Airport, 2017)
[196] (Air Cargo News, 2016b)
[197] (Cargo Forwarder Global, 2017)
[198] (Land In Liege, 2017)

13. Appendix – Supporting Material

13.1. Assumptions made to calculate indicative cargo bellyhold capacity

454. Despite the difficulties in stating a cargo capacity for an aircraft type (see paragraphs 394-395), by making some assumptions[199] it is possible to generate estimated like-for-like comparison of the potential cargo capacity of different aircraft types.

Aircraft	Typical Passenger Capacity (#)	Indicative Cargo Capacity Volume (m^3)	Indicative Cargo Capacity Mass (kg)	2017 ATMs, UK-World (excl Europe)
Newer Aircraft Types				
B777-300	350-400	116	24,000	15,000
A350-1000	350-400	112	25,000	-
B777-9X	350-400	109	30,000	-
B787-10	300-350	105	21,000	-
A350-900	300-350	95	20,000	2,100
B787-9	250-300	91	22,000	12,000
A330-900neo	250-300	84	15,000	-
B787-8	200-250	71	15,000	11,000
A330-800neo	250-300	64	22,000	-
A380	400+	57	34,000	12,000
Older Aircraft Types				
A340-600	350-400	109	26,000	2,000
A330-300	300-350	84	15,000	6,000
B777-200	300-350	77	22,000	3,000
B747-400	400+	71	25,000	12,000
A340-300	300-350	71	15,000	500
A330-200	200-250	64	22,000	6,000
B767-300ER	150-250	46	23,000	9,000

Note there are additional ATMs where the precise aircraft model is not known: B777: 18,000, B787: 2,000, A330: 500
Source: Boeing, Airbus, British Airways, JAL Cargo, Qatar Cargo, Qantas Cargo, OAG, Altitude Analysis

Table 5 – Indicative cargo capacity of selected aircraft types
Source: Boeing, Airbus, British Airways, JAL Cargo, Qatar Cargo, Qantas Cargo, OAG, Altitude Analysis

455. The following set of assumptions are intended to enable comparison of the cargo capacity (weight and volume) of different aircraft types on a basis that is as close to like-for-like as possible.

456. They do not result in a cargo capacity that is directly comparable with airline or manufacturer stated capacities, nor with cargo capacities actually achieved by the aircraft operators in the real world.

- Seat capacity as stated by the aircraft manufacturer. Where more than one configuration is listed, the highest capacity 2- or 3-class version is assumed (single-class configurations are possible but not common for widebody aircraft, and therefore not representative of the likely average configuration).
- Passenger load factor of 100%.
- A passengers to crew ratio as close to 20 as possible (with the number of crew and the number of passengers as whole numbers).
- Passenger and crew average weight of 85kgs per person.
- An average of 1.1 hold bags per premium (F/J/W) class passenger, and 0.8 hold bags per economy (Y) class passenger/crew member.
- Average premium bag weight of 21kgs and average economy bag weight of 20kgs.
- An allowance of 1500kgs for miscellaneous items (e.g. cabin baggage).
- The maximum possible weight available for passengers/crew/bags/misc./cargo is equal to the difference between the Empty Operating Weight and Minimum Zero Fuel Weight stated by the

[199] See Appendix section 13.1 for detail of these assumptions

aircraft manufacturer. Where the manufacturer defines multiple weight variants, the highest MZFW version is used.

- Average bag volume of 0.18m^3.
- LD3 container volume of 4.5m^3, and pallet volume of 11.4m^3 (Source: Boeing).
- Average LD3 packing factor of 95% for passenger/crew baggage.
- Assumption that no LD3 container will contain both F/J passengers bags and W/Y passenger bags (note no similar assumption is made for transfer/OD bags).
- The hold will be configured with enough LD3 containers to fulfil the passenger/crew baggage requirement (and no more), while adhering to the publicly-known allowable hold configurations (Boeing, Airbus, Qantas Cargo, JAL Cargo, SIA and Scoot]). Note: Available cargo volume is mathematically larger if the number of LD3 units in the hold is maximised. However, the LD3 is less useful for cargo than a pallet (it is smaller, so the maximum dimensions of the freight it can hold is lower; it has a small opening through which freight must be loaded; LD3s are smaller than pallets and are not cuboids; hence they have worse volume utilisation than pallets). In our experience, airlines do not typically use a max-LD3 hold configuration, despite the reduced mathematical cargo volume inherent in substituting LD3s for pallets.
- Bulk hold volume is not included in our cargo volume estimate[200].

13.2. Outlook for A380 in the UK Market

457. We do not believe the A380 will significantly increase in prevalence in the UK market, for the following reasons:

- The only UK airline with outstanding orders for the type is Virgin Atlantic (6 aircraft on order). However, Virgin has continually deferred this order (since 2006) and it is widely considered unlikely that deliveries of these aircraft will ever be made (a Forbes article from 2016 states "Virgin Atlantic's ever-deferred order for six is basically dead"[201]).
- The other major UK carrier (British Airways) currently has no outstanding A380 orders.
- There are currently outstanding orders of just 97 aircraft; 46 of these are for a single airline, Emirates, which is not based in the UK (but serves the UK market).
- Additionally, just 2 new orders globally have been made for the aircraft since 2015[202].

[200] The bulk compartment is typically around 10-15m^3, capable of storing loose-loaded items. At IAG Cargo, this space was primarily used for blankets and newspapers for passengers, with around 2-4m^3 typically made available for mail bags/express cargo. Use of this space may vary significantly airline by airline.
[201] (Forbes, 2016)
[202] (Airbus, 2017b)

14. Appendix – Review of AviaSolutions Report

14.1. Introduction

458. AviaSolutions was commissioned by Thanet District Council to investigate the commercial viability of Manston Airport. Its report[203], dated September 2016, is briefly reviewed in this section of the appendix.

459. The AviaSolutions report has a fairly wide scope, including a review of the site development options, analysis of passenger potential, airport financial projections and asset condition reports. Consistent with our overall scope, we focus only on the aspects of the AviaSolutions report addressing cargo potential.

460. Northpoint was subsequently retained by RSP to critique the AviaSolutions report. We review the Northpoint report[204] and the subsequent response from AviaSolutions[205] in the next appendix section (Section 15).

14.2. Potential Development Scenarios

461. AviaSolutions[206] outlines various potential scenarios for cargo activity at Manston. It states that:

> *"In the past, Manston Airport was able to attract a certain level of cargo activity, and a potential future role would be for it to again serve this market. In our assessment, we assume as a minimum that Manston attracts this previous freight, totaling 30,000 tonnes per annum."*

462. Given cargo consolidation trends and competition from more established airports, we consider it possible that a reopened Manston may not be able to achieve historic tonnage. However, as a modelling assumption, we consider this to be reasonable.

463. AviaSolutions then puts forward two possible reasons why the scale of activity in the future could exceed historic levels:

> *"The selection of the East Kent area by a major multinational manufacturing (e.g. an Asian electronics or white goods company) or retail group (e.g. Amazon) as the location of its distribution network. Such location decisions can have a significant impact on freight volumes. However the UK's planned exit from the EU leaves makes this less likely.*
>
> *As a consequence of their lower sensitivity to airport location, freighters are generally amongst the first category of traffic to be 'squeezed' out of busy airports. With the pressure on runway capacity in the South East of England, it is possible that freighters currently operating through the London airport systems might seek to move to an alternative airport."*

464. In relation to the first possible reason, we are not aware of any firm or proposed development that would have a significant impact on freight demand. Therefore, while this a theoretical possibility, the same could apply to any location in the UK. Any future such development would be heavily contested between different UK regions, with more established and more central distribution locations likely to have an advantage.

465. The second reason suggested by AviaSolutions is investigated further in subsequent sections of the AviaSolutions report. We comment on this analysis later in this appendix.

466. AviaSolutions continues, commenting on the potential for integrator services at Manston:

[203] (AviaSolutions, 2016)
[204] (Northpoint Aviation Services)
[205] (AviaSolutions, 2017)
[206] (AviaSolutions, 2016, p. 15)

> *"We also considered the role of integrators in the air freight market. Whilst general cargo traffic tends to be more flexible about the location of the airport it uses than passenger traffic, this does not apply to the major integrated freight operators. The business model of operators such as DHL, FedEx and UPS is based on a hub and spoke principle involving both aircraft and road feeder services: the surface element of the network has a greater requirement for a central location within the market being served. We consider the geographic location of Manston precludes it from being a suitable base airport for an integrator in particular when compared to UK competitors such as East Midlands Airport."*

This assessment of the potential for integrators is consistent with our view.

14.3. Cargo Analysis

467. In Section 6 of the AviaSolutions report, more detailed analysis of the cargo market is undertaken. In assessing the key airport dynamics of the UK market[207], AviaSolutions draws similar conclusions to our analysis:

> *"The busiest airport for freight has consistently been Heathrow, responsible for two thirds of the country's air freight. This position owes much to the very considerable cargo capacity in the holds of the wide-body aircraft providing the many long haul passenger services from the airport. In contrast, East Midlands' position as the second busiest freight airport is due to its role as the centre of the UK distribution network of the integrated cargo carriers, especially DHL but also UPS and Royal Mail. Stansted is preferred by FedEx and is also used by the cargo operations of a number of airlines. These included British Airways before it discontinued its all-freighter operations in April 2014 and switched to the freighter operations of Qatar Airways.*
>
> *It has been argued by, for example, York Aviation on behalf of the Freight Transport Association that the stagnation of growth in UK air freight market since 2000 has been caused by a lack of airport capacity in the London area and specifically at Heathrow. Whilst the lack of ATM growth at Heathrow has undoubtedly hampered the development of the national air freight market, it is also true that over this period there was adequate airport capacity available at both Stansted and Manston to support additional dedicated freighter movements. Freighter movements at Stansted decreased over the period, while Manston closed. This strongly suggests that the stagnation of UK airfreight is not a consequence of capacity constraints given the excess capacity at Stansted and Manston."*

468. In particular, the highlighted distinction between Heathrow freighter capacity and overall UK or South East freight capacity is key. AviaSolutions further explores the dynamics of bellyhold versus freighter:

> *"It is important to note that, in the UK market, only 30% of airfreight is carried on dedicated freight aircraft. This is substantially less than the global average, where approximately 56% of RTK's are transported on freighters. In part, this disparity is due to the excellent belly-hold networks available from UK airports and in particular from Heathrow.*
>
> *As passenger demand increases additional belly-hold capacity will enter the market. This capacity growth is unhooked from the demand scenario for belly-hold cargo and can result in excess capacity in the market. As a result airlines will often sell this belly-hold capacity using a marginal cost pricing structure. This pricing structure does not need to account for the high cost of the aircraft and must only meet the additional marginal cost that each kilogram of cargo incurs. Through the application of this pricing in the key structure, belly-*

[207] (AviaSolutions, 2016, p. 27)

hold cargo often undercuts the minimum price that can be charged on dedicated freighter operations.

As a result of this market dynamic, an airport focused on airfreight carried by dedicated freighters may be overly exposed to a declining or stagnant total market, or at best to a market that is not exposed to strong potential."

469. Again, this view of the market aligns with ours. One area of difference is in relation to the bellyhold capacity of newer aircraft. AviaSolutions asserts that:

"However, there are some elements of the market that appear to be limiting the increase in belly-hold capacity. These include

- *Some of the newer aircraft types have a smaller bellyhold cargo capacity than the aircraft they replace; and*
- *Low Cost Carriers (such as easyJet and Ryanair) are gaining market share but generally ignore the freight market."*

470. As we argue in our report, most newer aircraft types have higher cargo capacity than their predecessors (see paragraph 140). Furthermore, short haul passenger flights contribute a small minority of overall freight, regardless of whether operated by full service or low cost carriers (see paragraph 233).

471. AviaSolutions undertook interviews with freight industry representatives[208]. The list of interviewees was not extensive, with 4 people from the air cargo sector. However, compared to the stakeholders interviewed by Azimuth, there interviews are more relevant for analysing the potential for Manston to play a national role in the UK freight sector.

472. The conclusions from the interviews are summarised below:

"We conclude therefore that there is limited interest from the cargo industry in using a re-opened Manston Airport for air freight. The larger scheduled freighter operators are unlikely to relocate their services to the airport, particularly if the airport does not have a unique product offer. We believe it is more likely that were Manston Airport to re-open, the most likely role would be to serve smaller freight operators and the larger operators on an ad-hoc basis. There is no compelling reason to believe that the airport would be able to generate appreciably more freight activity than previously, other than in the context of a shortage of airport capacity in the London area."

473. This summary is consistent with our assessment of the potential market for Manston.

14.4. Potential Future Freight Operations - Model

474. The next stage of the AviaSolutions report[209] investigates potential demand versus supply imbalances in the South East. Not enough detail of the assumptions/workings is provided to be able to undertake a comprehensive review.

475. The approach differs from ours in some important respects:

- Demand growth rates based on trend analysis rather than linked to GDP.
- Future capacity based on assumed average loads for bellyhold and freighter flights at different airports. Future freight capacity expansion plans for airports do not seem to be explicitly taken into account.

[208] (AviaSolutions, 2016, p. 29)
[209] (AviaSolutions, 2016, p. 30)

- Focus on South East airports rather than national demand/supply.

476. Nevertheless, despite the different methodology, the conclusions are broadly similar to our analysis.

- Demand can be fully accommodated up to 2045 in the Heathrow third runway case.
- In all runway scenarios, demand can be fully accommodated up until 2040.

477. AviaSolutions then provides its modelling assumptions on the potential capture by Manston of unaccommodated demand:

> *"For the purposes of our assessment and in recognition of RiverOak's stated intention to develop Manston as a freight airport, we have assumed that half of the remaining unaccommodated demand is flown via Manston, with the other half going to other UK regional airports, potentially led by East Midlands and Manchester."*

478. We consider this a generous assumption, given the strength of alternative options at established airports or from a highly developed trucking network.

479. Later in the AviaSolutions document (Section 7.3.1), the Manston freight forecasts for the Heathrow third runway scenario are presented. Freight tones are modelled at 30,000 from 2018 to 2045, before growing to 100,00 tonnes in 2050. Appendix C (Section 11.1.1) of the AviaSolutions report provides the Manston freight forecasts for the no new runway scenario (the most favourable for Manston). Again, the forecast is for 30,000 tonnes from 2018 to 2040, but growing to 80,000 tonnes in 2045 and 140,000 tonnes in 2050.

480. These figures look reasonable for the short to medium term, with some potential for modest outperformance in a growing market. In contrast, we consider the forecasts to be on the high side in the long term. Even if South East capacity by 2050 is more heavily constrained than we assume, we consider it likely that centrally located regional airports will benefit to a much greater extent than Manston.

14.5. Conclusions

481. Section 8 of the AviaSolutions report provides its overall conclusions for the freight potential at Manston:

> *"Our freight interviews indicated that the demand to use the airport for freight was very limited. This, in large parts, is due to two factors; the infrastructure investments that have already been made by the industry around Heathrow and Stansted, and the geographical location of the airport. Infrastructure, and the associated knowledge, skill and supporting industry at airports such as Heathrow and Stansted, as well as the major European hubs such as Frankfurt, and Paris, would be almost impossible for Manston to replicate. The geographic location of the airport, tucked into the corner of the UK, cannot compete with airports such as East Midlands for Integrator services that are sold as fast delivery, due to the increases in surface transportation times. The interviews did however indicate that charter services and ad-hoc freighter flights would certainly return, providing some revenue income for the airport. In summary, we conclude that freight would return to the airport in limited quantities, not dissimilar to the tonnage previously processed at the airport."*

482. These conclusions are substantially in line with our conclusions (see Section 2.7).

15. Appendix – Review of Northpoint Report

15.1. Introduction

483. In the main body of our report, we have reviewed the reports issued by Azimuth on the potential for freight development at a reopened Manston. RSP also commissioned Northpoint to review the Azimuth forecasts, the original AviaSolutions report and more generally the RSP proposals. Northpoint's analysis was issued in a report titled *"The Shortcomings of the Avia Solutions Report and an Overview of RSP's Proposals for Airport Operation at Manston"*.

484. In this appendix, we briefly review the Northpoint report.

- Where the Northpoint report covers similar ground to the Azimuth reports, we do not repeat our commentary from the main body of our report.
- Furthermore, our focus is on areas of the Northpoint report relating to freight. Other areas, including passenger development and financial viability, are not covered at this stage.
- Finally, we restrict our commentary to the key issues of substance. For example, Northpoint expresses strongly worded opinions on the AviaSolutions approach. While we believe this criticism is misplaced, we have separately reviewed the AviaSolutions report, and do not see the need for further comment in this appendix.

485. Our review of the Northpoint report has been undertaken in chronological order (the same order issues appear in the Northpoint report).

15.2. Manston Airport Benchmarks

486. Northpoint describes the business model for a reopened Manston as a "*mixed use airport offering air cargo, air passenger links and aircraft servicing and recycling*[210]". Northpoint then highlights that this would be:

> *"…in line with the business models of successful benchmark airports such as Alliance Fort Forth in Texas, USA; Hamilton Airport in Ontario, Canada; Bergamo in Italy; Liege in Belgium; and Leipzig in Germany."*

487. There is no explanation of what characteristics these airports may have in common with Manston, or why these airports would be more relevant than UK examples of mixed use airports such as Prestwick.

- See paragraph 322 onwards for a review of Prestwick Airport and similarities to Manston.

488. In the appendices (Section 12), we have provided case studies of Leipzig and Liege airports. The case studies demonstrate very clearly that these airports have very little in common with Manston, and cannot be considered as relevant benchmarks using objective criteria.

489. AviaSolutions[211] subsequently reviewed all the airports put forward by Northpoint and concludes:

> *"There are clearly structural and geographical reasons as to why each of these airports is different to the proposal for Manston Airport. As such, suggesting these are comparable benchmarks is not realistic. In order for Manston Airport to acquire the status of these airports it would need to demonstrate key elements of development, namely; commitments from key express players (DHL / UPS / FedEx / Amazon / Alibaba); an ability to operate night operations with few regulatory restrictions; and geographical advantages from nearby cities, industrial parks, and population centres."*

[210] (Northpoint Aviation Services, p. 1)
[211] (AviaSolutions, 2017, p. 16)

490. We agree with this assessment. The catchment, location and regulatory framework are all much less favourable at Manston, rendering any comparisons between the airports meaningless.

15.3. Air Cargo Forecast Methodology

491. In Section 2 of its report, Northpoint puts forward its approach to air cargo forecasting and critiques the AviaSolutions approach. The Northpoint methodology appears to be similar to the Azimuth approach, which is reviewed in Section 8 of this report. We focus our assessment of the Northpoint approach on selected key points not covered in the Azimuth forecast review.

492. Northpoint[212] downplays the importance of location for freight, stating that *"In order to forecast where future freight capacity might optimally be developed, it is therefore not appropriate to rely on the geography of consignee demand"*. Instead, the importance of supply side issues is stressed:

> *"The effect of this is to push freight forecasting away from typical neo-classical demand/price mechanism models and any use of airport specific progression, towards supply driven modelling particularly requiring transparency about the supply factors that are used. So, for example, freight operations will be attracted either to where there is a large volume of network carriers flying international services or to where there are few night time restrictions because these are important for express freight operations, or in the case of dedicated freighters where there are no restrictions on slot availability and there is sufficient space to create efficient apron based loading and unloading operations alongside specialist handling facilities such as refrigerated storage, bonded warehouses and major logistics sheds."*

493. Northpoint then argues that *"In the south east of England this points to a relatively small number of airports being suitable for any large-scale freight operations."* Northpoint[213] sees this as an opportunity for Manston, stating that *"…there are few alternatives other than for Manston to cater for non-belly freight movements at south-east airports."*

494. There is an inconsistency in this argument. If the geography of demand is of secondary importance, Northpoint's focus on airport capacity in the South East is misplaced. In any case, South East airports already attract a disproportionate share of the UK's freight demand (see Section 2.4).

495. On Pages 4 and 5 of its report, Northpoint makes a number of assertions, in support of its forecasts, which we dispute:

- *"Based on long-term growth trends in the sector, this report contends that freight capacity in the south-east will need to expand by over 100% in the next 25 years."* No further explanation is provided for such a sweeping statement. As we have highlighted, there is spare freight capacity in the South East currently (see Section 5.3). Furthermore, the focus on South East airports only is not justified (see paragraph 219).
- "*… the expansion for Stansted and Luton for passenger services, primarily of a low-cost nature, means that there will be very few spare slots during the day and more importantly at night, that can be used by express freight carriers for dedicated freight operations*." This assertion ignores the plans of Stansted to grow its freight volumes and to expand its freight infrastructure. It also does not consider the separate planning cap for freight flights (see paragraph 237 onwards).
- *"In this context, and keeping in mind the need for basic infrastructure requirements such as a substantive runway, good road connections and sizeable areas available for apron and shed development, there are few alternatives other than for Manston to cater for non-belly freight movements at south-east airports."* As noted previously, we disagree with a narrow focus on the South East market. Even so, there are other options. In addition to the substantial expected freight

[212] (Northpoint Aviation Services, p. 4)
[213] (Northpoint Aviation Services, p. 5)

capacity growth at Heathrow and Stansted, other airports such as Gatwick and Bournemouth could play a larger role in the future.

- *"Indeed, I anticipate existing volumes at Luton, Stansted and Gatwick will continue to fall as slots and space become increasingly valuable."* The implication that volumes are falling at Stansted and Gatwick is incorrect. Both airports have enjoyed strong growth since 2015 (Gatwick especially, see paragraph 212).

496. On Page 5, Northpoint then outlines the perceived benefits of Manston:

> *"Manston, in contrast, will have no foreseeable slot restrictions, an established reputation for efficient handling and if RSP's proposals are approved, a substantial apron capable of handling several large aircraft concurrently all with excellent airside support facilities and access to dual carriageway roads to London, the M25 orbital and in the foreseeable future to a new Dartford crossing improving access to ports in Essex and in East Anglia. It is even well positioned for trans-shipping freight to trucks, which can then use Dover port or the Channel Tunnel to access the near continent."*

497. We disagree with this assessment of the potential for Manston:

- As discussed previously (Section 4.11), Manston's location is poor.
- The infrastructure advantages are not unique to Manston, while the potential night flight restrictions at Manston are not mentioned.
- We are unconvinced by the potential of improved access to ports. For example, Liverpool Airport currently has very limited freight volumes despite common ownership with Liverpool Port.
- Similarly, it is not clear what advantages could accrue from trans-shipping freight to trucks for onward cross-channel travel. The directional flows where this would make economic sense are not articulated.

498. In referring to the Northpoint forecasts, it is stated on Page 5 that *"They nevertheless demonstrate that, under a range of scenarios, Manston is strongly placed to attract surplus demands in the South East by offering an attractive supply side solution to the air freight industry."* As far as we can see, only one (very optimistic) scenario is presented by Northpoint.

499. Northpoint then provides a wide range of comments on the AviaSolutions forecast methodology (Pages 6-7). AviaSolutions[214] refutes many of these in its follow up report. We make the following observations:

- Northpoint promotes the use of global historic trends and manufacturer forecasts in the context of Manston projections. As we also comment in relation to the Azimuth forecasts (see paragraph 361), the simplistic application of global manufacturer projections to a UK airport is problematic. The divergent freight trends in different markets caution against the application of global metric.
- Northpoint appears to suggest that, for Manston, global forecasts are more relevant than national projections. We find this puzzling. While freight is an international business, UK demand characteristics should not be disregarded.
- Northpoint also seems to argue that bellyhold capacity at Heathrow is constrained, and set to diminish due to newer aircraft types having lower bellyhold capacity than predecessors. However, as we show in Section 4.7, the average freight load for both bellyhold and freighter flights at Heathrow has been growing significantly. This suggests that spare capacity exists and/or average capacity per flight is improving. In the same section, we also highlight that – with the exception of the A380[215] – newer passenger aircraft typically have higher bellyhold capacity than legacy aircraft.

[214] (AviaSolutions, 2017)

[215] As at 31st October 2017, 217 A380 aircraft were in operation with outstanding orders for a further 100. This compares to 1,744 A330/A340/A350 family aircraft in operation, plus a further 1,057 outstanding orders (source: Airbus website). In addition, there is a large

500. The Northpoint report then addresses the issue of cross-channel transhipments (Page 7 onwards). Its argument is that lack of airport capacity in the South East has led to a major increase in trucking from the UK to European airports. As we noted previously, there is not (nor has been) any overall shortage of airport capacity for freight in the South East or the UK more generally (Section 5). Furthermore, the increasing use of truck feeder services is due to cost efficiencies and is not restricted to the UK (see Figure 32).

501. AviaSolutions[216] also correctly points out that:

> *"It is important though to note that a reverse flow also exists with continental European freight being trucked across the Channel to be flown into and out of UK airports. A lack of verifiable data on these flows hinders quantitative analysis, although the practice has existed for many years and despite this the freight industry chose not to use Manston Airport when it was open."*

502. On Page 9, Northpoint draw inappropriate conclusions from York Aviation studies. Our comments on this in relation to Azimuth also apply here. Similarly, we find Northpoint comments on Brexit impacts speculative and one-sided.

503. Northpoint then devotes Pages 10-14 on *"The Availability of Substitutable Bellyhold Capacity"*. We disagree with the following assertions:

- "*However, Avia adduces no evidence on comparative charging rates between bellyhold and freighter carriers and therefore with Heathrow known to be one of the most expensive airports in the world, we remain sceptical that this is a material factor that would drive the re-allocation of consignments from freighters to bellyhold aircraft."* As we illustrate in Section 4.7, Heathrow has grown its share of the UK freight market despite its relative expense. Despite high airport charges, we understand that the incremental costs of cargo carriage at Heathrow are fairly low. Therefore, where excess bellyhold capacity exists, it makes economic sense for airlines to try to fill that capacity with competitive charges for freight customers.
- *"First, just under 50% global air cargo is shipped bellyhold; the comparative figure in the UK is 70%. Since the economies of the UK's main EU competitors are not materially different from our own, there is no logical explanation for this difference other than the shortage of slots available to integrator aircraft or dedicated freighters …"*. There is available airport capacity for integrators / dedicated freighters (see Section 5). A much more credible explanation for the high proportion of bellyhold in the UK is Heathrow, which is Europe's largest passenger hub airport. Heathrow provides an extensive schedule of widebody passenger flights to many of the world's most important air freight markets. Furthermore, the geographical position and island status of the UK make it a less suitable location for freighter flights serving the wider European market (compared to say, Germany). This is especially true for flows to/from Asia.
- *"Second, there are many types of freight (e.g. time critical, heavy, large or live) for which bellyhold capacity cannot provide an acceptable substitute to dedicated freighters*." It is correct that some types of freight are unsuitable for bellyhold. However, this segment of the market is very small and is accommodated at existing airports such as Stansted.
- *"Third, Heathrow's principal attraction for freight forwarders, namely the range of international destinations it serves directly, is also its potential Achilles heel, because that network may not be sufficiently concentrated on certain 'thick' freight routes to be able to cope with the underlying demand – in other words the more complex the passenger network, the greater the likelihood it may not match the required pattern of freight distribution flows."* We do not follow the logic of this. At any airport, there will be some routes where freight demand exceeds bellyhold supply.

backlog of Boeing widebody orders (ca. 1,200 as at October 2017) in addition to aircraft already in operation. Therefore, the A380 is not overly significant in relation to overall bellyhold capacity.

[216] (AviaSolutions, 2017, p. 18)

This is not a new phenomenon, and we are not aware of any suggestions that there will not be an ongoing role for freighter aircraft in the future. Therefore, it is unclear how this factor will be a negative for Heathrow going forward.

- *"Fourth, new aircraft tend to have less bellyhold capacity than older ones and Heathrow and Stansted are the two airports where these new aircraft are most likely to be introduced."* This point is incorrect and was addressed earlier with regards to Heathrow earlier in this section (paragraph 499). The comment is relation to Stansted is irrelevant, as Stansted bellyhold freight is negligible.
- *"And finally, it is very likely that a sizeable chunk of the available runway capacity at both airports will be taken up by Low Cost Carriers (i.e. Ryanair at Stansted and easyJet at Heathrow), and as with most Low-Cost Carriers, carrying freight does not form part of their business model."* We have previously argued that the airline mix is much less important than the route mix. Short haul full service airlines only generate a small fraction of bellyhold freight, so any differences in airline mix within the short haul sector will have minimal impact (see paragraph 233).
- *"Hence, in the medium to long term it is hard not to see the average freight capacity per aircraft arriving at Heathrow diminishing, even if with the new runway, the total number of aircraft that can operate there increases."* This would require a reversal of historic trends – as discussed above, the average loads per flights have been growing strongly. We would anticipate this trend to continue in the future.

504. We have a very different view of the freight outlook, both generally and specifically for Manston. No credible evidence is presented by Northpoint in support of its assessment. There are major flaws in key lines of argument, with its study exhibiting many of the same fundamental issues as the Azimuth reports.

15.4. Manston Air Freight Forecasts

505. Northpoint present summary air freight forecasts in Appendix A of its report. The forecasts are even more ambitious than the Azimuth forecasts, with 472,000 tonnes projected by 2040. This figure is equivalent to two-thirds of all tonnage on freighter aircraft in the UK in 2016.

506. The building blocks to the forecast are not easy to follow. However, the following assumptions appear highly suspect:

- Stansted to see freight volumes reduce dramatically, in contrast to the airport's own forecasts and expansion plans. It appears all this "spilled" freight is expected to divert to Manston, rather than more established UK competitors.
- Similarly, spill from Gatwick and Heathrow, despite growing long haul services at Gatwick and a new runway at Heathrow. Again, it seems all spill is expected to be captured by Manston.
- There is also a major assumption that a substantial proportion of freight can be "clawed back" from European airports. By 2040, it appears that this factor contributes 100,000 tonnes to Manston in the Northpoint forecasts. The assumption is unfounded and ignores market economic reality.

507. In Section 8.6, we concluded that the Azimuth forecasts were extremely optimistic and therefore not credible. The Northpoint forecasts are even more ambitious. Therefore, we draw similar conclusions in relation to their credibility.

508. As with the Azimuth forecasts, we also note the Northpoint cargo flight projections are high, even taking into account the projected freight tonnage.

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Manston Airport DCO

14th February 2019

1. Instructions

1.1 As of 1st February 2019 GVA Grimley Limited was acquired by and commenced trading as Avison Young.

1.2 Avison Young's integrated team of planning, development, financial consulting and compulsory purchase specialists have been advising Stone Hill Park (SHP) since it acquired Manston Airport in 2014. Avison Young has been providing planning and viability advice to support realisation of SHP's comprehensive redevelopment proposals. More recently the instruction has been extended to incorporate strategic and compensation advice surrounding River Oak Strategic Partner's (RSP') proposed acquisition.

2. Purpose & Summary

2.1 The purpose of this note is to summarise the basis on which compensation (assuming a compulsory acquisition) of the Manston Airport site should be assessed and to identify RSP's material failure to undertake reasonable negotiations.

2.2 Generally speaking the quantum of compensation is not a matter for the DCO Examination, for if the DCO is made and acquisition not agreed, monetary issues will ultimately be determined by Tribunal. However, compensation is relevant to the DCO Examination because:

- *Offers to acquire have been so unreasonably low that the promoter has failed to undertake reasonable efforts to negotiate an acquisition.*
- *The promoter's DCO case claims the site (as an existing airport with an extent permission) holds special value key to the prospect of its scheme being commercially achievable. However, the quantum of its offers to acquire conflict with the wider DCO case by ignoring any claimed value.*
- *The level of compensation which will arise on a compulsory acquisition significantly exceeds the budget identified in RSP's funding statement. Therefore it appears likely that the appropriate level of compensation has not been adopted in any assessment by RSP of whether the scheme represents a commercially viable and deliverable proposition.*

3. RSP's Offer to Acquire and Available Funding

3.1 An offer to acquire, made by RSP's advisers (CBRE) on 10th October, 3 months after the DCO application was made on 17th July 2018, is shown at Appendix 1 together with SHP's response issued by GVA on the 14th December 2018. It can be seen that CBRE has made a number of factual errors in relation to land owned by SHP, and we have some concern this indicates a failure to undertake appropriate land referencing and due diligence. A substantive response to the issues outlined on the 14th December is still awaited.

3.2 RSP's DCO funding statement provides an acquisition budget of £7.5m for all land interests required to deliver the scheme. This budget includes the 742 acre SHP site and other land including the (approx. 4.5 acre) Jentex oil facility, which was recently acquired by RSP for £2.3m.

4. Basis of Compensation

4.1 Compulsory purchase compensation is based on the principle of fairness and equivalence. The principles, legislation and case law surrounding the assessment of compensation is collectively known as the Statutory Compensation Code (The Code). This essentially adopts the overriding principle that it would be unfair to the claimant if compensation is less than the loss incurred, but also unfair for the acquiring authority if the amount paid is greater than the loss. Loss includes property value and also other losses directly attributable to the acquisition.

4.2 In valuing land, the Code essentially seeks to replicate the assumptions the market would generally apply if the promoter's proposal (the Scheme) did not exist. It therefore generally permits a claimant to claim on the basis of the highest use value which would be achievable in the absence of the Scheme.

4.3 The Code requires the positive or negative impacts of the Scheme underlying the acquisition to be disregarded when determining compensation if there is no prospect of that Scheme being delivered other than through statutory powers.

4.4 With this site, a number of different approaches could be adopted to assess the land value element of compensation, all of which provide a materially higher compensation estimate than the offers made by CBRE on behalf of RSP. The key issues associated with these different approaches to calculating compensation are outlined below. The Code permits the claimant to claim on the basis which the market (in the absence of the Scheme) would attribute the greatest value.

5. Airport Value

5.1 The site has a lawful planning use as an airport. The site is in one ownership and capable of use as an airport, albeit potentially requiring some expenditure and upgrade depending on the scale and nature of airport use required.

5.2 RSP's DCO justification is predicated on the airport being viable as a cargo facility. In fact their Statement of Reasons goes into some considerable detail as to why they consider Manston's site specific characteristics offer special value for their promoted freight scheme.[1] Yet the value CBRE is offering on RSP's behalf is based on an assumption that the site holds no or nominal value as an airport. Thus, there is an inherent conflict in RSP's case.

5.3 The scheme proposed by RSP reflects an alteration to an existing airport with a lawful planning use. The Code requires only RSP's DCO scheme to be discounted, not the extant certificate of lawfulness or any other airport potential of the site. Therefore, a comparable scheme could be implemented by the sites owners or any other entity on acquisition of the site from SHP, without recourse to a DCO. SHP has not promoted such

[1] *See Para 2.1 of RSP's Explanatory Memorandum*

a scheme, because they do not consider the site offers potential for a viable commercial aviation operation.

5.4 The special characteristics RSP claims the site holds are characteristics which exist in the absence of their scheme. Thus, if Manston truly represents a viable and attractive commercial airport, because SHP or a successor in title could deliver a similar scheme without a DCO, then such characteristics should hold special value which the market would be expected to reflect in any bids for the site. Any such special value should be reflected in RSP's business case and bids for the site.

5.5 Should the Panel and Secretary of State agree with the promoter's case and conclude that the DCO scheme is commercially achievable on account of the airfields claimed special characteristics, then, by implication they must also conclude that the site as it stands, with its extant certificates of lawfulness constitutes a commercially viable airport with special characteristics the market in general would attribute value to. In such a scenario, the Panel and Secretary of State could only conclude that reasonable attempts to acquire by agreement have occurred if offers to acquire have been made on the basis of the site being a viable airport with special characteristics. On the other hand, if the Panel and Secretary of State conclude it has been reasonable to undertake negotiations which apply no special value to the extent airport use and characteristics, they must also conclude that RSP's scheme proposals are undeliverable. To conclude otherwise would be illogical.

6. Comprehensive Residential Led Redevelopment

6.1 SHP's master planned, residential led, mixed use redevelopment of Manston Airport represents a realistic and deliverable scheme developed in consultation with key stakeholders. The local need for housing and potential of the site is considered in further detail at Avison Young's report: The Case for Housing (February 2019). A viability appraisal was undertaken by GVA (now trading as Avison Young) in July 2018 and has been provided to the Council for independent review. This appraisal provides a land value of £38m.

6.2 SHP acquired the site for £7m in 2014 and has invested considerable resources into the promotion of the site for redevelopment. This has increased the likelihood of delivery, certainty over project costs and significantly enhanced the site value. In the absence of RSP's scheme it is likely that SHP's development would be realised, releasing to SHP a land value based on comprehensive, residential led redevelopment greatly in excess of RSP's funding statement position and CBRE's offers to acquire.

7. Piecemeal Development & Investment Potential

7.1 Manston airport is a significant landholding in a strategic south-east location. Aside from residential development potential the nature and scale of the site presents an attractive long term investment opportunity. Multiple opportunities exist to grow the current rental income, secure additional occupations and release parcels for development.

Investment value of existing occupations alone

7.2 A number of commercial occupations exist on the site which deliver an income. These vary from small scale private commercial occupations to a parking services agreement with the DFT. Adopting a scenario where any comprehensive or major development potential is ignored, it is likely that the value of these interests and occupations would be maximised, with additional occupations secured. If airfield use wholly fell away and redevelopment did not come forward, such space would likely be permitted to be used for a wide range of employment purposes. This would allow rental income from existing and new occupations to be grown, the commercial occupations could then be valued on the basis of capitalising the receivable rents to determine their investment value.

7.3 This is a common strategy at other disused airfields where comprehensive redevelopment is not achievable. The quantum of compensation, assessed on the basis of long term investment potential, significantly exceeds agricultural value and offers made by CBRE. However, this approach also ignores the other long term comprehensive or piecemeal development potential.

Hybrid piecemeal development and investment approach

7.4 Even if the potential for comprehensive redevelopment is wholly ignored, potential would remain for piecemeal development across parts of the site, in particular the previously developed elements. Countless examples of piecemeal employment led uses and redevelopments exist at disused airfields across the UK, for example: Wellesbourne, Witham or Gaydon. Potential ranges from tertiary conversions of existing uses to construction of major distribution type space. The value based on piecemeal development potential is directly related to the level of development assumed to be achievable and the nature of the achievable occupations. Even a base case piecemeal development scenario would deliver a land value significantly greater than agricultural value, CBRE's offer for the site or the position adopted in RSP's funding statement.

7.5 Adopting a piecemeal development scenario where: 1) Employment land lots are disposed of over say a 15 year programme. 2) The investment value of current occupations is maximised, with new occupations secured and 3) Disposal of undeveloped land suitable for cultivation. Taking these assumptions into account, we consider it would not be unreasonable for an investor to attribute a site value in the region of £15-20m to SHP's land ownership.

7.6 If piecemeal development included some residential development, this would grow value further. If we assume potential and permission for say 15 hectares of previously developed land surrounding the terminal come forward as a residential scheme, this could achieve around 500 homes. In such a scenario it is difficult to see that part of the site alone transacting at materially less than the £6.078m Homes England paid for a comparable sized residential site at New Haine Road, Thanet in March 2017.

7.7 We understand that RSP have recently offered to acquire the SHP site for £20m, on the basis that SHP retains the benefit of a restrictive covenant, reserving to SHP any future uplift in value associated with residential redevelopment. Evidently it is only where a site has residential development potential that such a restriction holds value, thereby suggesting RSP accept the principle of greater value arising from residential development.

DFT agreement and Brexit

7.8 The DFT need for Manston arose prior to the 2016 referendum as no other suitable site exists in Kent (see para 7.4 of Appendix 2 and para 7.3 of Appendix 3). The DFT agreement commenced in 2015 and has provided considerable consistent income over a number of years and the DFT need for the site is expected to continue.

7.9 Should the Port of Ramsgate gain greater strategic importance the commercial potential of the SHP land is likely to grow significantly.

Agricultural Value

7.10 Agricultural land in the South East typically transacts at about £8,500-12,500 per acre when it lacks development, hope or pony paddock value. For comparison purposes only, even if the lower end is applied to the whole of SHP's ownership as referenced in RSP's Book of Reference (742 acres) this would equate to around £6.3m rather than the £2m figure adopted by CBRE.

7.11 When land has no use other than agriculture and is no less useful for agriculture than the market average, there is no logical reason why it should transact at a value less than any other comparable agricultural land. Where land is clearly not agricultural, such as the buildings and other previously developed elements of the airport, it is wholly inappropriate to value it on an agricultural basis. Previously developed land at other disused airports which lack wider development potential generally transacts at a premium to agricultural value on account of its developed status, potential for non-agricultural use and redevelopment. When undeveloped/agricultural land has development potential it is also inappropriate to value it as agricultural land.

7.12 Therefore the adoption of discounted agricultural land as the basis of CBRE's offer to acquire fails to reflect market value which would include the site's characteristics and the previously developed nature of much of the site. Furthermore the position adopted by CBRE and RSP's funding statement materially conflicts with RSP's most recent offer to acquire of £20m.

8. Conclusion & Key Issues

8.1 Offers to acquire made by CBRE on RSP's behalf materially fail to discharge the promoter's duty to undertake reasonable negotiations. As identified at para 6.1 SHP's master planned, residential led, mixed use redevelopment of Manston Airport represents a realistic and deliverable scheme developed in consultation with key stakeholders. This or a similar comprehensive residential scheme represents the appropriate basis on which to assess the value of the site.

8.2 The compensation provision made in RSP's funding statement is insufficient to meet the compensation obligations resulting from a made DCO. It is important to note that RSP's most recent offer of £20m excludes any value associated with residential development potential, demonstrating the need for RSP's funding provision and business case to be reassessed to reflect significantly higher compensation liabilities.

8.3 Offers to acquire and the compensation budget should reflect the potential for and value associated with comprehensive redevelopment. The alternative approaches to assessing compensation such as piecemeal development do not represent an appropriate basis on which to calculate the claim. However they do demonstrate RSP's significant and material under estimate of the compensation obligations resulting from the DCO. Value assessed on any of these approaches (including comprehensive residential, piecemeal development or agricultural) significantly exceeds RSP's funding statement position and CBRE's offers to acquire.

8.4 This material underestimate of compensation costs further undermines RSP's case that there is a reasonable prospect of its scheme being delivered, as it appears that the promoter has not taken account of the true level of the DCO's compensation obligations.

8.5 There is significant and concerning conflict in RSP's DCO case. It claims that special characteristics offered by the site as an airport with an extant permission and desired location are key to the business case underlying and justifying its scheme. On the other hand, it argues the site's value is minimal and does not reflect any of the claimed special characteristics. In this case, as the site is an airport with a lawful planning use as an airport, the Code requires any value associated with airport use and characteristics, as well as all other matters set out above, to be reflected in compensation.

Appendix 1- CBRE letter dated 10th October 2018 & GVA response dated 14th December 2018.

Appendix 2- EXPLANATORY MEMORANDUM TO THE TOWN AND COUNTRY PLANNING (OPERATION STACK) SPECIAL DEVELOPMENT (AMENDMENT) ORDER 2017 No. 1137 http://www.legislation.gov.uk/uksi/2017/1137/pdfs/uksiem_20171137_en.pdf

Appendix 3- EXPLANATORY MEMORANDUM TO THE TOWN AND COUNTRY PLANNING (MANSTON AIRPORT) SPECIAL DEVELOPMENT ORDER 2019 2019 No. 86

http://www.legislation.gov.uk/uksi/2019/86/pdfs/uksiem_20190086_en.pdf

CBRE Limited
Henrietta House
Henrietta Place
London W1G 0NB

Switchboard +44 (0)20 7182 2000
Fax +44 (0)20 7182 2001
Direct Line [redacted]
Direct Fax

Virginia Blackman
[redacted]

10th October 2018

By email and post

Dear Virginia,

STONE HILL PARK LIMITED – PLANNING ACT 2008 - DEVELOPMENT CONSENT ORDER APPLICATION BY RIVEROAK STRATEGIC PARTNERS LIMITED

I refer to your letter dated 3rd October.

The opportunity to discuss statutory compensation assessment/valuation is welcomed.

My response to specific points raised, repeated below for ease of reference, is as follows.

As your client is seeking to enter into negotiations in advance of a compulsory acquisition under the Planning Act 2008, I should be grateful for your confirmation that SHP's professional fees in dealing with this matter will be reimbursed by your client, and that Bircham Dyson Bell provides an undertaking to that effect please.

I confirm SHP's reasonably and necessarily incurred professional valuation fees will be reimbursed, initially subject to a £5k + VAT cap, reviewable on request and justification. Time sheets to be provided please.

It would therefore be helpful if you could set out your opinion of market value, and how you have reached that figure, together with the level of premium that your client is prepared to pay over and above that figure. I would envisage this including information on your methodology and approach, your assumptions around use and potential use, and your calculations carried out in arriving at your figure of market value.

My position in respect of the estimated market value of your client's land is consequent on

(i) **the current planning position (no scheme world / cancellation assumption)**
(ii) **the need for project specific land assembly and acquisition of rights with required use of CPO**
(iii) **(apparent) lack of viability for redevelopment (notwithstanding lack of planning)**

which leads to the LCA 1961 s5 rule 2 statutory compensation being based on existing use value the basis for which I consider to be some small-scale income producing use, possible agricultural use on parts and 'amenity land'.

The market value evidence from your client's acquisition of the freehold interest five years ago is compelling and persuasive. The widely reported nominal consideration + debts, was I assume correct (please confirm) with no overage agreement forming part of the transaction? To help further understand that transaction, what was the level of debt and what was the net receipt from the subsequent sale of assets please?

The DCO Book of Reference (copy attached) identifies your client's primary landholding as plot 015 with an area of 2,262,837 m2 (226.3 ha) - 559 acres

Taking the total area my opinion is that amenity land value, reflecting an element of albeit undefined potential for limited piecemeal commercial use (subject to planning) income, can reasonably taken at £3,750 per acre – circa £2m. This figure sits with and is derived from agricultural land value of £7,500 with a 50% discount applied for quantum/cost of restoration and allowance for unusable areas.

A premium over that £2m of 25% is adopted, hence my rule 2 figure is £2.5m. This is proposed in accordance with Guidance on Compulsory Purchase Process and The Crichel Down Rules 2018 para 2 which reads (in part) as follows, my underlining

The confirming authority will expect the acquiring authority to demonstrate that they have taken reasonable steps to acquire all of the land and rights included in the Order by agreement. Where acquiring authorities decide to/arrange to acquire land by agreement, they will pay compensation as if it had been compulsorily purchased, unless the land was already on offer on the open market.

In addition, a £100,000 Loss Payment is to be added and reasonable fees and costs.

I would now welcome the opportunity to meet and discuss matters arising, please let me know your availability during the next few weeks. I'm happy to meet at my office, your office or on site.

Yours sincerely,

[redacted]

COLIN SMITH
SENIOR DIRECTOR

CBRE

GVA

Our Ref: VHGB/SHP

65 Gresham Street
London
EC2V 7NQ

T: +[redacted]
F: +[redacted]

gva.co.uk

14 December 2018

C Smith ESq
CBRE
Henrietta House
London
W1G 0NB

Dear Colin

Stonehill Park Limited
Development Consent Order Application

Thank you for your letter dated 10 October 2018. I have consulted my client and set out my response below, including the correction of some factual information set out in your letter.

1. I note your comments in relation to fees, but do not consider this a reasonable approach. My client is entitled to take professional advice on a wide range of matters in respect of the Development Consent Order application affecting their property, and it is unreasonable to restrict this advice to valuation work only. As set out in Virginia Blackman's letter dated 3 October, my client requests an undertaking from Bircham Dyson Bell to reimburse SHP's professional fees in this matter.
2. Until the matter of fees is resolved I have been instructed not to comment on your proposed valuation methodology other than to provide the factual clarifications outlined below.
3. My client's land interests are identified in your client's Book of Reference as having interests totalling approximately 300 ha (742 acres). I attach a schedule extracted from the Book of Reference, which sets out the plots and interests which make up this total.
4. In addition, my client holds rights over a number of other plots within the Book of Reference, and you seem to have ignored these in your letter.
5. As shown on the Land Registry title, my client purchased their property for £7,000,000 in September 2014, then known as Lothian Shelf Limited before their name was change to Stone Hill Park Limited in June 2015. I am not clear to which transaction you refer in your second paragraph of page 2 of your letter?
6. In addition, you should be aware that part of the property is subject to a Parking Services Agreement with the Department for Transport. The agreement with DfT to use the land continues.

The majority of this information is set out in the Book of Reference, and the remainder readily available at the Land Registry, and so I am not clear why the information is not reflected in your letter?

GVA is the trading name of GVA Grimley Limited registered in England and Wales number 6382509. Registered office, 3 Brindleyplace, Birmingham B1 2JB

Regulated by RICS

Once you have had a chance to review the above, I look forward to receiving your further responses, including confirmation of an undertaking in respect of professional fees from Bircham Dyson Bell.

Yours faithfully

[redacted]

Michael Walton

[redacted]

For and on behalf of GVA Grimley Limited

EXPLANATORY MEMORANDUM TO

THE TOWN AND COUNTRY PLANNING (OPERATION STACK) SPECIAL DEVELOPMENT (AMENDMENT) ORDER 2017

2017 No. 1137

1. Introduction

1.1 This explanatory memorandum has been prepared by the Department for Transport and is laid before Parliament by Command of Her Majesty.

2. Purpose of the instrument

2.1 This Order further extends the planning permission originally granted in 2015, and extended for a further 18 months in 2016. The planning permission granted by this Order will now cease on 31st December 2019.

3. Matters of special interest to Parliament

Matters of special interest to the Joint Committee on Statutory Instruments

3.1 None.

Other matters of interest to the House of Commons

3.2 As this instrument is subject to negative resolution procedure and has not been prayed against, consideration as to whether there are other matters of interest to the House of Commons does not arise at this stage.

4. Legislative Context

4.1 Sections 59 and 60 of the Town and Country Planning Act 1990 give the Secretary of State the power to grant planning permission in relation to specific sites under a special development order ("SDO"). Such planning permission may be made unconditionally or subject to such conditions or limitations as may be specified.

5. Extent and Territorial Application

5.1 The extent of this instrument is England and Wales.

5.2 The amendments made by this instrument have the same territorial application as the Town and Country Planning (Operation Stack) Special Development Order 2015 ("the 2015 Order"), namely the land identified in that Order at Manston Airport Manston Road, Kent.

6. European Convention on Human Rights

6.1 As the instrument is subject to negative resolution procedure and does not amend primary legislation, no statement is required.

7. Policy background

7.1 Operation Stack is a co-ordinated multi-agency response to situations when the capacity of the Port of Dover and/or Channel Tunnel becomes restricted. It involves

closing sections of the M20 motorway to hold freight traffic in a number of phases and locations within the Port / Tunnel approach and along the M20 motorway.

7.2 Over the summer of 2015, Operation Stack was called for a total of 24 days, with Stage 3 of Operation Stack (where parts of the London-bound M20 are used to store HGVs) being implemented for the first time ever. The unprecedented duration of this disruption and the closure of the London-bound carriageway led to considerable congestion on the roads around Kent with consequential impacts on the local economy, tourism and the haulage industry. There were costs associated with policing and managing the disruption as well as costs associated with providing welfare for HGV drivers.

7.3 To reduce the disruption caused by Operation Stack, the government sought alternative locations for HGVs to park in the longer term as an alternative to Operation Stack and in the short-term as an alternative to Stage 3 of Operation Stack.

7.4 The disused Manston Airfield was identified as the only suitable location in Kent for an alternative to Stage 3 and capable of holding large numbers of vehicles. Since 2nd September 2015, the site has been subject to planning permission granted through an SDO and this expires on 31st December 2017.

7.5 To date the facility of Manston Airfield has not been used for Operation Stack purposes, however the Government considers it is important to have it available until the longer term solution is in place and to act as a contingency. Therefore it is extending the permission granted by the 2015 Order and 2016 Amendment.

7.6 This Order grants permission for a further 2 years, subject to the same conditions and limitations, for use of the site for the purposes of stationing goods vehicles in relation to Operation Stack. Without the SDO, if Operation Stack Stage 3 is invoked on or after 31st December 2017, the operation would have to revert to holding cross-Channel-bound freight vehicles on the London-bound M20 motorway, causing significant disruption to local communities, compromising the welfare of drivers and having a deleterious effect upon the economy.

7.7 Planning permission under this Order is granted for the use of the land identified on the map referred to in the 2015 Order, namely the land comprising the runway, adjoining hard surfaced apron areas and identified access and exit routes on the site; for the use of the Air Traffic Control Tower; and the installation and siting of temporary facilities, services, structures and infrastructure that are ancillary to this use.

7.8 In order to mitigate against potential impacts, this Order grants planning permission for such use subject to a number of conditions and limitations.

7.9 This Order does not permit:

- the use of the land for the stationing of goods vehicles otherwise than for the purposes of Operation Stack;
- the use of the land for the stationing of goods vehicles otherwise than on areas of hard standing;
- the use of the land for the refuelling and unloading of goods vehicles;
- the provision on the land of any structure, works, plant, or machinery otherwise than on areas of hard standing;

- the provision on the land of any structure, works, plant or machinery which exceeds 4 metres in height;
- the use of any building (other than the air traffic control tower or any structure brought onto the land on or after 5th August 2015) on the land.

7.10 This Order is subject to the following conditions:

- any hard standing must be kept in good repair and any defects in the hard standing which may allow surface water or other liquids to penetrate beneath the hard standing must be repaired, so the hard standing is impermeable, as soon as practicable;
- the surface and foul water drainage systems must be kept in good repair and any defects or blockages to the system must be repaired or removed as soon as practicable;
- a plan identifying the foul water sewers and surface water drainage system, including the location of access points to deploy emergency stop valves, must be kept on the land at all times; and
- any artificial lighting must be installed no closer than 10 metres from the boundary of the land and must be arranged so the main beam angle of each installation is directed downward so as to minimise light spill.

7.11 The area of land to which this order applies is shown on a map, a copy of which is available for inspection at the offices of the Department for Communities and Local Government, 2 Marsham Street, London, SW1P 4DF, and another copy at the offices of Thanet District Council, Cecil Street, Margate, Kent, CT9 1XZ.

7.12 The planning permission granted by this Order is temporary and the use shall cease at the end of 31st December 2019. The land should be restored to its condition before the development took place, including removal of all structures, works, plant or machinery brought onto the land in connection with the use as soon as practicable.

Consolidation

7.13 The Department does not intend to consolidate the 2015 Order.

8. Consultation outcome

8.1 The Department for Communities and Local Government consulted Highways England, Kent Police, Kent County Council, Environment Agency, Natural England, Historic England and Thanet District Council on the use of the land before the 2015 Order was made. Some expressed concerns about how the site would operate and traffic be coordinated, but none opposed the scheme. As engagement continued those concerns reduced.

8.2 Further stakeholder consultation has taken place with Highways England, Kent Police, Kent County Council and Thanet District Council. Highways England were supportive of the need to extend the SDO, Kent Police and Kent County Council were content with the proposal and Thanet District Council offered no observations. Given this is an extension of the current SDO and the nature of the planning permission granted has not changed, no wider consultation has taken place.

9. Guidance

9.1 Not relevant.

10. Impact

10.1 When activated at Stage 3 of Operation Stack, use of Manston Airfield for the storage of HGVs will have a positive impact for local businesses and the haulage industry. There is no impact on charities or voluntary bodies.

10.2 There is no impact on the public sector.

10.3 An Impact Assessment has not been prepared for this instrument.

11. Regulating small business

11.1 The legislation does not apply to activities that are undertaken by small businesses.

12. Monitoring & review

12.1 A review provision has not been included as the instrument is not regulatory in nature.

13. Contact

13.1 Jon Bennett at the Department for Transport, Telephone: 07773 074 331, or email: jon.bennett@dft.gsi.gov.uk can answer any queries regarding the instrument.

EXPLANATORY MEMORANDUM TO

THE TOWN AND COUNTRY PLANNING (MANSTON AIRPORT) SPECIAL DEVELOPMENT ORDER 2019

2019 No. 86

1. Introduction

1.1 This Explanatory Memorandum has been prepared by the Department for Transport and is laid before Parliament by Command of Her Majesty.

1.2 This memorandum contains information for the Joint Committee on Statutory Instruments.

2. Purpose of the instrument

2.1 This Order augments the planning permission for Manston Airport originally granted in 2015 (as amended in 2016 and 2017) and extends it so that it will now expire on 31 December 2020. It also extends the scale and scope of use of the airfield to act as a contingency for the stationing, transit and processing of goods vehicles as a key component of the response to potential traffic congestion caused by disruption to cross channel services at the Port of Dover.

3. Matters of special interest to Parliament

Matters of special interest to the Joint Committee on Statutory Instruments

3.1 The Department regrets that it has not been possible to comply with the normal procedure for negative statutory instruments, whereby the instrument would not come into force earlier than 21 days after it is laid.

3.2 This reflects, however, the rapidly moving work on the capacity requirements for goods vehicle holding in Kent and the infrastructure options at Manston Airport. Moreover, prior to making the Order, the Department has had to undertake a range of environmental and other analysis before it could consider the potential impact of the proposed expanded development and undertake targeted consultation with relevant stakeholders. The Department also had to obtain sufficiently robust modelling of likely traffic flows to justify the extension of capacity. Given the urgent need to ensure the site has planning permission to provide this expanded use in time for preparatory works to be completed prior to the UK's exit from the EU, taken with the detailed work needed before the Order could be made, we consider the breach of the 21-day rule for this Order is justified.

Matters relevant to Standing Orders Nos. 83P and 83T of the Standing Orders of the House of Commons relating to Public Business (English Votes for English Laws)

3.3 As the instrument is subject to negative resolution procedure, there are no matters relevant to Standing Orders Nos. 83P and 83T of the Standing Orders of the House of Commons relating to Public Business at this stage.

4. Extent and Territorial Application

4.1 The territorial extent of this instrument is England and Wales.

4.2 The territorial application of this instrument is the land identified in the Order at the Manston Airport site, Manston Road, Kent

5. European Convention on Human Rights

5.1 As the instrument is subject to negative resolution procedure and does not amend primary legislation, no statement is required.

6. Legislative Context

6.1 Sections 59 and 60 of the Town and Country Planning Act 1990 give the Secretary of State the power to grant planning permission in relation to specific sites under a special development order ("SDO"). Such planning permission may be made unconditionally or subject to such conditions or limitations as may be specified.

7. Policy background

7.1 Operation Stack is a co-ordinated multi-agency response to situations when the capacity of the Port of Dover and/or Channel Tunnel becomes restricted. It involves closing sections of the M20 motorway to hold freight traffic in several phases and locations within the Port and Tunnel approach and along the M20 motorway.

7.2 In 2015, Operation Stack was called for a total of 24 days, with Stage 3 of Operation Stack (where parts of the London-bound M20 are used to store goods vehicles) being implemented for the first time. The unprecedented duration of this disruption and the closure of the London-bound carriageway led to considerable congestion on the roads around Kent. This had consequential impacts on the local economy, tourism and the haulage industry. There were costs associated with policing and managing the disruption as well as the costs of providing welfare for goods vehicle drivers.

7.3 To reduce the disruption caused by Operation Stack, the Government sought alternative locations for goods vehicles to park in the longer term, as an alternative to Operation Stack, and particularly Stage 3. The disused Manston Airport was identified as the only suitable location in Kent as an alternative, capable of holding large numbers of goods vehicles. Since September 2015, the site has been subject to planning permission granted through an SDO for this purpose and, following this, an extension in 2017, which currently expires on 31 December 2019. To date, the facility of Manston Airport has not been used for Operation Stack purposes but the Government considers it as important to have it available as a contingency until the longer-term solution is in place.

7.4 The Department committed to develop and implement an interim solution (Brock) by March 2019 to allow non-port traffic to continue to use the M20 in both directions when goods vehicles are stored on the coast-bound carriageway. Manston Airport remains a key component of this operation. Whilst Operation Brock is designed to mitigate all potential disruption to the Port including fires, severe weather and other issues, this existing role would also form part of acting as a contingency to manage any disruption that may occur during the UK leaving the European Union. To ensure that all possible scenarios have been accounted for, the Department has prepared the M26 to act as a back stop for holding lorries and proposes to undertake some temporary improvements at the Manston site that require a new SDO.

7.5 This SDO augments the Town and Country Planning (Operation Stack) Special Development Order 2015 (as amended in 2016 and 2017). It grants planning

permission until 31 December 2020, subject to limitations and conditions. This permission is granted for development of land on the Manston Airport site for the stationing, transit and processing of goods vehicles and the use of the land for repairs to goods vehicles where, pursuant to s69(1) of the Road Traffic Act 1988, a vehicle is declared unroadworthy by a vehicle examiner. It also permits the provision of other temporary structures including those needed to provide lighting; electricity for refrigeration goods vehicles; and other facilities. It permits the use of buildings on the site for the provision of improved welfare facilities and services so that drivers do not need to leave the site. The installation of temporary hard standing is also permitted in the area of land specified as area "B" on the map (see 7.12). Works to widen the main exit to improve traffic flow from the site are permitted, as are works to resurface and repair hard standing where surveys deem this necessary. Finally, this SDO permits the parking of non-goods vehicles associated with use of the site in the existing car park adjacent to the passenger terminal.

7.6 The limitations are: only goods vehicles that are directed by site officials to be stationed on the site may be so stationed; goods vehicles may only be stationed in the areas of hard standing shaded on the map; no goods vehicle may be refueled; and no goods vehicle may be unloaded unless it is incidental to the works permitted to take place at the site or the operation of buildings, structures, plant, machinery and facilities on the site. Furthermore, unless the approval of the Secretary of State has been obtained, no goods vehicles may carry any, dangerous goods loads exceeding permitted quantities, or dangerous goods loads that require stabilization through temperature control, such goods being identified in a dangerous goods management plan. Any vehicles carrying dangerous goods loads that are identified in the dangerous goods management plan as requiring isolation must be situated in area "A" on the map and subject to the provisions set out in that plan.

7.7 Live animals, explosives, polymerizing substances, infectious substances, radioactive material and high consequence dangerous goods are not permitted in any circumstances.

7.8 General conditions require that the hard standing, foul and surface water drainage systems, fire hydrants and emergency water supply on the land are to be kept in good repair with defects to be remedied as soon as practicable; and that a plan identifying the sewers and drainage systems be kept on the land at all times. Any artificial lighting installed must be placed no closer than 10 metres from the boundary of the land and is arranged so the light is directed downward and away from the boundary to minimise light spill. In addition, refrigeration heavy goods vehicles are required to use a dedicated electrical supply on the site. Moreover, buildings identified by an ecology report as being used by protected species as breeding, resting or sheltering places and development within 20 metres of a point identified as being used by such animals may, similarly, not be developed. In both cases, this restriction can only be lifted if a subsequent survey advises that the location is no longer used.

7.9 The stationing of goods vehicles on the land after 29 March 2019 is limited to a maximum of 305,505 vehicle movements per calendar year. This is to operate within environmental limits in line with the recommendations of the environmental and habitat assessments that have been carried out to inform this Order. An archaeologist appointed by the Secretary of State must also oversee the installation of the temporary hard standing and be able to record items of interest and finds. Furthermore, cesspits must be emptied no less than once a month and temporary structures collecting

sewage daily. If the High-Resolution Direction Finder (HRDF) system at the site is operational, goods vehicles may only be stationed within 120 metres of it, if that is permitted by a management plan agreed by the Department for Transport, Ministry of Defence and Civil Aviation Authority that safeguards the HRDF's operation.

7.10 Pre-commencement conditions must be complied with before the land can be used for the stationing of vehicles. Ecological surveys must be completed before any buildings on the site can be used for the development permitted by this Order and works widening the main exit must be completed. Furthermore, surveys must be completed of foul and surface water drainage as well as permanent hard standing, with any defects being repaired and drainage cleared. Fire hydrant and emergency water supplies must also be inspected and tested, and any defects detected being remedied. Copies of rules, policies and plans relating to the use of the site must also be approved by the Secretary of State.

7.11 Before the temporary hard standing can be installed in area "B" on the map, specifications relating to its surface construction and drainage must be approved by the Secretary of State. Surveys for unexploded ordnance and archaeology must also take place. Moreover, prior to the removal or disturbance of the Y-shaped dispersal pads currently located in area "B", they should be recorded in accordance with Historic England's technical guidance or alternative best practice

7.12 The area of land to which this order applies is shown on a map, a copy of which is available for inspection between 10am and 4pm at the offices of the Department for Transport, 33 Horseferry Road, London, SW1P 4DR, and another copy at the offices of Thanet District Council, Cecil Street, Margate, Kent, CT9 1XZ.

7.13 The planning permission granted by this Order is temporary and the use will cease at the end of 31 December 2020. With the exception to any repairs to permanent hard standing, buildings, facilities, drainage and widening of the main exit, the land must be restored to its condition before the date of the Order coming into force; ie, 24 January 2019. This includes removal of all structures, works, plants or machinery brought onto the land relating to the use.

8. European Union (Withdrawal) Act/Withdrawal of the United Kingdom from the European Union

8.1 This instrument does not relate to withdrawal from the European Union or trigger the statement requirements under the European Union (Withdrawal) Act.

9. Consolidation

9.1 The Department does not intend to consolidate the 2015 Order.

10. Consultation outcome

10.1 The then Department for Communities and Local Government consulted relevant stakeholders on the use of the land before the 2015 Order was made and they were consulted again prior to the extension of the Order in 2017.

10.2 The Environment Agency, Natural England, Historic England, Marine Management Organisation, Kent Fire and Rescue Service, Thanet District Council (local planning authority), Dover District Council, and Kent County Council (highways authority) have been consulted for the purposes of this Order. Their responses were not in opposition, but identified some issues they would like addressed as part of this work.

10.3 We believe these issues are manageable and have included conditions within the SDO as a direct response. Concerns expressed by the Environment Agency have been met by including conditions relating to surveys of, repairs to and upkeep of hard standing and foul and surface water drainage systems, the keeping of plans of the foul and surface water drainage systems on site, the approval of a number of plans by the Secretary of State, including the specification for the proposed surface construction and drainage system for the temporary hard standing and restrictions on which dangerous goods can be stationed on the site and where this may occur.

10.4 Historic England's comments were responded to by the inclusion of conditions requiring the installation of temporary hardstanding being preceded by an archaeological survey with those works being observed by an archaeologist. Those of the Kent Fire and Rescue Service by requiring inspections on and upkeep of fire hydrants and emergency water supplies. Natural England's concerns about impacts on air quality have been met by limiting the annual number of goods vehicle movements at the site. The District Councils raised issues relating to the use of the site if it is needed and its potential impact on the local area; in particular, the environment.

10.5 We will continue to work with all relevant stakeholders to mitigate these issues before and during any use of the site, which would be temporary should it be needed. In particular, we will work with the Environment Agency and the Kent Fire and Rescue Service to produce the environmental assessments and site management plans required before the site can be used.

11. Guidance

11.1 Not relevant.

12. Impact

12.1 There is no, or no significant, impact on business, charities or voluntary bodies.

12.2 There is no, or no significant, impact on the public sector.

12.3 An Impact Assessment has not been prepared for this instrument because there is no significant impact on business.

13. Regulating small business

13.1 The legislation does not apply to activities that are undertaken by small businesses.

14. Monitoring & review

14.1 A review provision has not been included as the instrument is not regulatory in nature.

15. Contact

15.1 Jonathan Monk at the Department for Transport Telephone: 07977 411553 or email: Jonathan.Monk@dft.gov.uk can be contacted with any queries regarding the instrument.

15.2 Paul O'Sullivan, Deputy Director for Roads, EU Exit at the Department for Transport can confirm that this Explanatory Memorandum meets the required standard.

15.3 Jesse Norman at the Department for Transport can confirm that this Explanatory Memorandum meets the required standard.

Pinsent Masons

Relevant Representation of Stone Hill Park Limited

in relation to

the application for a Development Consent Order ("DCO") made by Riveroak Strategic Partners Limited in respect of Manston Airport (the "Application")

Planning Inspectorate Reference TR020002

1. INTRODUCTION

1.1 We act for Stone Hill Park Limited ("**SHP**"), the freehold owner of the vast majority of the land affected by the proposed development by Riveroak Strategic Partners Limited ("**RSP**"), including the site that comprises the airfield known as Manston Airport. In this Relevant Representation, SHP's freehold ownership is termed the "**SHP Land**" (A plan showing this land is contained in **Appendix 1**). SHP is an 'affected person' within the meaning of section 59(4) of the Planning Act 2008 and as such is a Statutory Party for the purposes of section 88(3A) of the Planning Act 2008.

1.2 SHP **objects** to the Application by RSP, and wishes to take a full part in the examination, including Compulsory Acquisition Hearings.

1.3 The Examining Authority will note that this is a very highly unusual DCO application for many reasons including:

1.3.1 the owner of Manston Airport, SHP, is not the promoter of the DCO Application and, as such, the Examining Authority must hear SHP's evidence as to the Airport's current capability so that a reasoned decision can be taken alongside that put forward by RSP (who has no interest in the Airport). When examined, it will be clear that RSP's proposals simply cannot fall within section 23 of the Planning Act 2008;

1.3.2 RSP's proposals purport to be a scheme to reopen or revive consistently unsuccessful airport operations at Manston Airport which is earmarked and being promoted for redevelopment for a much needed housing and mixed use scheme (a planning application is currently being determined by Thanet District Council);

1.3.3 the inclusion of a request for compulsory acquisition powers over the majority of the land to which the proposed development relates. Indeed, the majority of the Order Land, including the airfield itself, is in the legal ownership of a single private company, SHP. SHP acquired this land following the closure of Manston Airport in order to promote and deliver housing and mixed use scheme for the District of Thanet. SHP has spent considerable time and cost in preparing its substantial planning application for new housing and mixed use on the SHP Land;

1.3.4 the absence of National Policy Statement ("**NPS**") support for the proposed development. Whilst an Airports NPS exists, it does not provide policy support to Manston. Indeed, no other planning policy, either national or local, provides policy support to re-open Manston Airport. In fact, the most recent evidence compiled by Thanet District Council for its Local Plan review, confirmed that is was highly unlikely for any viable operations to return to the Airport;

1.3.5 the lack of credibility or independence of the aviation evidence presented to support the need case for the proposed development;

1.3.6 the lack of evidence as acknowledged by the Examining Authority to enable it to assess viability of the proposed development or determine whether funding could be secured for the proposed development;

1.3.7 the lack of transparency over the identity of RSP's beneficial owners or evidence regarding the track record of RSP or its directors; and

1.3.8 the nature, scale and applicability of the purported "associated development" in so far as they pertain to the relevant Associated Development Principles and Guidance.

1.4 It is clear, in SHP's view that the Applicants appear to be simply using the DCO process as a ruse to obtain this valuable site. As such, it is an abuse of the Planning Act 2008 which requires careful and thorough scrutiny of all areas.

1.5 This Relevant Representation outlines the principal concerns and objections of SHP in relation to the Application, and the areas where SHP considers that further and more detailed examination is particularly warranted. SHP intends to submit detailed Written Representations in support of the points raised in this Relevant Representation once the examination has begun and the examination timetable has been set.

1.6 SHP urges the Examining Authority in the strongest possible terms to make arrangements for a swift, testing and detailed examination of the Application. SHP's own proposals for the land affected by the Application, a major housing and mixed use scheme, are being delayed as a result of this Application.

1.7 As such, it will require a panel of Examining Inspectors with sufficient expertise and experience of examinations and in particular the law and high burden of proof for compulsory acquisition where there is a high degree of disagreement as to the justification for a DCO (let alone the basis for this being a DCO application at all – see further below). Such an examination will require very specific forensic interrogation and questioning of the evidence, including appropriate cross-examination, particularly where there is a clear difference between stated experts.

2. BACKGROUND & CONTEXT

2.1 The history of Manston Airport over the past 20 years is one of consistent financial failure.[1] In its period of private ownership from 1999 up to its closure in 2014, the airport failed to sustain viable aviation operations and had incurred aggregate financial losses in excess of £100 million. Each of the owners had found, in turn, that the factors that made Manston a valuable asset in time of war were insurmountable obstacles in a competitive commercial aviation market for either passenger or cargo operations. SHP purchased the SHP Land, as an already closed airport, in October 2014.

2.2 High level statistics and trends regarding the UK market for dedicated air freighters show what contributed to Manston's previous failure and demonstrate why there is no need or case for a reopened airport at Manston. In summary, these are:

2.2.1 Cargo air traffic movements ("**ATMs**") recorded by the CAA in the UK fell from c.110,000 in 2000 to c.52,000 in 2017[2]. This was driven by long term market trends as air freight migrates onto cheaper, more flexible and

[1] Kent County Council, Position Statement (March 2015) 'Manston Airport under private ownership: The story to date and the future prospects'

[2] Data taken from the CAA website - [redacted]

increasing belly hold capacity, where connectivity to the global marketplace is far greater.

2.2.2 Despite considerable investment in the 2000's, during the period of Infratil's ownership, from 2005 to 2013, Manston averaged less than 450 cargo ATMs each year[3].

2.2.3 The 2017 DfT aviation forecast projects no growth in UK freighter ATMs in the next 30 years.

2.2.4 CAA statistics show a total of c.42,000 freighter ATMs in the whole of England & Wales in 2017 - c13,000 were intra UK flights (e.g. mail flights), with only c.22,000 and c.7,000 being EU and International flights, respectively[4].

2.2.5 84% of these non-domestic ATMs are consolidated around the significant existing infrastructure and logistic/distribution hubs at East Midlands, Heathrow or Stansted.

2.2.6 CAA figures show that East Midlands and Stansted together account for c.21,500 (c.75%) of these EU and International flights. As c.50% of these are night flights to meet the operational requirements of the express integrators (e.g. DHL, UPS), there were estimated to be less than 18,000 daytime non-domestic cargo ATMs per year in the whole of England & Wales in 2017.

2.3 In the face of this evidence and Manston's history of consistent commercial failure, RSP's apparent plans for the Airport would result in the capability of Manston handling in excess of 80,000 cargo ATMs during daytime hours and it is forecasting to operate in excess of >10,000 daytime cargo ATMs in its 5th year of operation.

2.4 In addition, Thanet District Council ("**TDC**"), the local authority in whose jurisdiction Manston Airport is situated, itself sought to explore whether airport operations could be viably and sustainably recommenced. TDC therefore embarked in July 2014[5] on a process to try to find indemnity partners in order to help fund a potential compulsorily acquisition or acquisition by agreement of the Airport and then to re-commence airport operations . This process included detailed consideration of the predecessor and former prospective applicant for the current proposed development, Riveroak Investment Corporation LLC ("**RIC**"), which is incorporated in the US. However, despite a detailed process, TDC's cabinet decided on two occasions (in December 2014 and in October 2015), to take no further action to progress with compulsory purchase action for the Airport as they concluded they could not identify a credible indemnity partner who could demonstrate a viable and deliverable plan for airport operations to re-commence. TDC's decision in October 2015 in particular was based on the conclusion that RIC did not fulfil the requirements for a suitable indemnity partner.

2.5 TDC's Local Plan evidence base reinforced the conclusions drawn by its independent consultants about the business case (see commentary in section 5.3 below and copies of the relevant documents enclosed at **Appendices 2, 3 and 5 and 6**, together with further independent expert evidence produced in the period since the RIC bid was rejected).

2.6 RSP does not own and has no interest in the vast majority of the site in respect of which it is seeking this DCO. The Planning Inspectorate acknowledges in its previous section 51 advice and as set out in the section 55 checklist that RSP has failed to

[3] [redacted] n the CAA website;

[redacted]

[5] TDC approved the decision to begin the process in Cabinet on 31 July 2014

provide relevant financial information in the Application and that there is substantial risk to the examination as a consequence. This demonstrates that RSP, as with its predecessor, still cannot show it has the funds to deliver the proposed development and does not control the funding to meet even the most modest estimate of land acquisition and blight costs (the basis of which estimates has not been disclosed as part of the Application). Furthermore, it has elected, in the face of previous concerns raised, not to provide evidence that would enable the Examining Authority even to assess whether funding could be secured for the proposed development.

2.7 There is no NPS support for the proposed development as described in the Application. In addition, SHP's position is that it remains highly questionable that the proposed development constitutes an NSIP within the meaning and purpose of the Planning Act 2008 and that despite the Planning Inspectorate's decision to accept the Application under section 55, the issue remains a live one which is both important and relevant to the Secretary of State's decision. We return to this below in paragraph 3.

2.8 Further to a previous planning application, SHP has submitted an updated planning application in respect of the SHP land which it owns and which is targeted for determination by TDC by the end of 2018. The updated planning application is supported by a detailed and complete Environmental Statement ("**ES**") and has been accompanied by a viability model which demonstrates that SHP's proposals are credible, deliverable, and can support affordable housing. The evidence base for the Local Plan concluded that the Manston Airport site was suitable for housing and the appraisals undertaken as part of that exercise validate SHP's own evidence that the SHP proposals are viable and deliverable. The shareholders in SHP have a demonstrable track record of delivering successful regeneration projects across the UK.

2.9 Based on all the evidence, RSP's DCO Application, by contrast, rather than being a genuine proposal to run a re-opened airport, in fact represents an ill-founded and cynical attempt to be given compulsory acquisition powers to acquire, at an undervalue, land with significant development value. It is, in short, little more than an apparent attempted 'land grab' and is a potential abuse of the Planning Act 2008.

2.10 This is highlighted further by the fact that RSP does not make any attempt to reflect the Crichel Down Rules in the Application such that the land would be offered back in the event of the project not proceeding or the land not being used for the purpose for which it was purportedly acquired and which would otherwise apply to circumstances where a Government body is the acquiring authority.

2.11 The RSP proposed development and this Application are also causing significant uncertainty for large numbers of residential occupiers in Ramsgate and the surrounding areas, concerned over the potential for their homes to be overflown by cargo aircraft and very unclear as to how the number of ATMs and the levels of noise and disturbance is proposed to be controlled and regulated.

Need to progress to examination

2.12 The Planning Act 2008 sets out a front-loaded process, where the onus is on the Applicant to submit an application which, at the time of submission, is fully detailed and ready for examination, and which has been the subject of proper public consultation. The volume of section 51 correspondence from members of the public to the Planning Inspectorate is clearly very extensive and indicates the extent to which RSP's proposed development has caused public concern and RSP has failed to provide adequate information for members of the public to fully understand the proposals. A key theme from the section 51 correspondence is a lack of transparency and unclear and confusing statements. Quite simply, the Application attempts to "pull the wool" over the public's eyes with unsubstantiated claims.

2.13 There are a number of areas where the Application is notably still deficient even at this stage (which are outlined later in this representation). However, these deficiencies must not delay the progress of this ill-judged Application. SHP asks, therefore, that the Examining Authority proceeds forthwith in accordance with established practice and Guidance[6] to a Preliminary Meeting so that a timetable can be set for its examination. This will have the considerable benefit of giving certainty to all concerned.

2.14 The deficiencies in the Application were raised with RSP in SHP's responses to statutory consultation, and were also raised by other statutory bodies as well as by the Planning Inspectorate itself. Detailed section 51 advice was then supplied by the Planning Inspectorate following the withdrawal of RSP's first application for a DCO. RSP, despite having the opportunity, has simply chosen not to address all of the deficiencies prior to submission. It follows that RSP is content with its Application and it should be examined as it stands as with any other DCO application. It is time for RSP and its case to be tested in a proper and thorough examination on all areas.

3. SECTION 23 OF THE PLANNING ACT – NSIP JUSTIFICATION (SHP ISSUE 1)

3.1 As noted above, SHP fundamentally disagrees with the reasoning set out in in RSP's NSIP Justification paper (Examination Library Reference APP-049). SHP also disagrees with the Planning Inspectorate's conclusions in its Acceptance of the Application that the draft DCO *"includes development for which development consent is required".*

3.2 It is appreciated that the Planning Inspectorate considered this issue at the Acceptance stage, having raised questions on this very same point in respect of RSP's earlier application, which RSP then withdrew. The decision to accept the subsequent application (i.e. the Application) under s55 was based however purely on the material contained within the Application which RSP declined to allow to be made public. No party, including SHP, therefore had the opportunity to comment upon RSP's NSIP Justification (Examination Library reference APP-049) prior to Acceptance. SHP has therefore not yet had the opportunity to respond to RSP's own specific response to SHP's previous legal advice and submissions. Given SHP is the owner of this airfield known as Manston Airport and therefore has the necessary insight into the facilities and infrastructure at the airfield, it is clearly essential for the Examining Authority to now hear from the owner, SHP, as to its views on the NSIP Justification paper (Examination Library Reference APP-049).

3.3 The Planning Inspectorate's conclusions in this context cannot, therefore, be treated as determinative and it is clear that this is an issue which needs to be thoroughly tested and examined by the Examining Authority at the earliest opportunity, hearing all submissions. Such an approach would also accord with the section 51 advice provided by the Inspectorate to SHP, both orally and published, dated 20 April 2018, following Mr MacNamara's complaint on behalf of SHP that the Application had not been made public and the prejudicial position it placed SHP. The Inspectorate in response to this request made it clear that although they would not publish the Application, SHP would nevertheless be able to make a Relevant Representation at the appropriate time if the Application was accepted. In such an instance, SHP would then finally see what RSP had in fact submitted in this regard and the Relevant Representation and subsequent evidence to the Examination would allow for a response and further testing and consideration with all evidence and submissions then taken equally into account.

3.4 SHP will be submitting its own response to RSP's NSIP Justification paper, but will also be relying upon evidence already collated and supplied by SHP to RSP and to the Planning Inspectorate in relation to the section 53 application made by RSP and in seeking section 51 advice (copies of which are attached for the Examining Authority's reference at **Appendices 12, 14 and 17**).

[6] Paragraph 40 of Guidance for the examination of applications for development consent, DCLG March 2015

3.5 In summary, SHP will point out a variety of crucial errors in RSP's NSIP justification and approach, all of which, when rectified demonstrate that the current facilities at the Manston Airport site **do have** a current capability (in development control terms), which in turn means that the proposed development, on RSP's own terms, cannot be classified as an NSIP. RSP is factually wrong in asserting that the current capability is zero, and SHP will demonstrate that at the Written Representation stage.

3.6 The approach taken by RSP is wrong in principle as well as in its application in relation to its submissions as to the role of independent regulatory/licensing processes in determining the capability of an airport. The simple issue of the existence of an EASA Certificate or other aerodrome licence is not determinative of the capability (in development control terms) of an existing airport.

3.7 There is an existing lawful use certificate[7] which confirms the lawful status of the Manston Airport site for civil aviation use, with no caps or limits on ATMs during the day, and with regulation of night flights via a section 106 mechanism.

3.8 Further, it can be shown that the details relied upon by RSP, in asserting that the Manston Airport site has zero capability and would require development in order to operate any freight Air Transport Movements ("**ATMs**") at all, are inaccurate in a number of material respects.

3.9 Examples of inaccuracies include as follows:

3.9.1 the fire station is not missing its roof, and would not require to be demolished and rebuilt to be brought back into use;

3.9.2 there is no requirement for a radar to be provided on site - options exist for radar feed to be provided by other airports, which would not require any development;

3.9.3 the air traffic control tower is fit for use and would not have to be demolished and rebuilt – internal fit out would not require planning permission;

3.9.4 fuel farm – there is no requirement at all in planning terms for there to be an onsite fuel farm. If the current fuel farm is not fit for purpose after a period of disuse, there is no reason why fuel supplies could not be hosted off site. This is an option that the Environment Agency specifically requested that RSP should consider as part of the pre-application consultation and is clearly not therefore a bar to the airport having a capability.

3.10 SHP will expand upon these issues in its Written Representations, and intends to refer to its previous representations made to RSP and the Planning Inspectorate which are attached at **Appendices 7, 8, 10, 12, 14, 15 and 17**. SHP will provide evidence to show that the current capability of the airfield known as Manston Airport when properly assessed is circa 22,000 ATMs and in any event certainly demonstrably greater than zero. This existing capability must clearly be taken into account.

3.11 Both RSP and its predecessor company, RIC, have made statements regarding their intention to "reuse" existing facilities at the Airport. The "effect" of the majority of the development proposed by RSP is not to create new capability for handling freight ATMs. There is also no clear explanation of which elements of the proposed development are considered by RSP to form the purported NSIP and which are associated development. Whilst RSP states that Work Numbers 1 to 11 are considered as part of the purported NSIP, the rationale in the explanatory memorandum (Examination Library Reference APP-009) is inadequate and seeks to rely on various highways NSIPs in justifying its failure to explain the development

[7] CD/TH/99/0377 granted on 8 July 1999, CD/TH/98/0400 granted on 8 July 1999 and CD/TH/13/0745 granted on 4 November 2013

proposed. It is the NSIP itself which must have the *effect* of increasing freight ATMs in order to satisfy the statute, and RSP's failure to differentiate between the NSIP and the associated development, adequately or at all within the Application, means that this issue also needs to be examined and tested thoroughly.

3.12 All of these matters are clearly important and relevant to the decision in respect of this purported DCO. Failure to hear from the owner of the airfield and simply rely on RSP's own assertions in its Application on this most important of points, would be prejudicial and procedurally unfair.

4. SCHEME DESCRIPTION (SHP ISSUE 2)

4.1 SHP considers that the detail of the RSP scheme description needs to be examined forensically with all representations taken into account.

4.2 For the purposes of seeking to justify the proposed development as an NSIP, RSP asserts that the effect of the proposed development (although, as referred to above, no explanation is offered by RSP as to why all of Work Numbers 1 to 11 are considered to be part of the purported NSIP) is to increase Manston Airport's capability from zero freight ATMs to 83,220 freight ATMs, and that this should be the description of the development that is used for the purpose of judging whether the Application has any place in examination under the Planning Act 2008.

4.3 However, the Environmental Impact Assessment (EIA) accompanying the Application does not assess the development for which RSP is seeking consent – an uncapped airport operation with a capability of handling up to 83,220 freight ATMs per annum.

4.4 Paragraph 10 of Annex 1 of RSP's NSIP Justification paper (Examination Library Reference APP-049) states that "*Environmental impact assessment is of likely significant environmental effects, and is therefore of the Proposed Development's projected use [*sic]*(up to that which is more than a bare possibility) rather than its theoretical capability. Furthermore, the airport could operate at a greater number of flights while remaining within the impacts that have been environmentally assessed*."

4.5 There are two fundamental legal and assessment errors in this worrying statement:

4.5.1 First, Regulation 14 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 ("**EIA Regulations**") requires that the ES must include "*a description of the likely significant effects of the proposed development...*". The Regulation is clear, an applicant has to assess the likely significant effects of the development being applied for, which in this instance is 83,220 freight ATMs per annum (the figure RSP claims is the "effect" of its proposed development). RSP is trying to claim that Regulation 14 allows an applicant to only assess the "likely" proposed development. If this were the case, then the Regulation would have expressly referred to the "*likely significant effects of the likely proposed development...*". It clearly does not.

4.5.2 Second, as to the last sentence in paragraph 10, how can the Examining Authority and the Secretary of State have any degree of certainty that the airport "*could operate at a greater number of flights while remaining within the impacts that have been environmentally assessed*" without this even being assessed? The ES does not provide any evidential basis for this conclusion.

4.6 The propositions in Paragraph 10 of Annex 1 of RSP's NSIP Justification are not only flawed, but wrong in law. On the one hand, RSP is trying to use the 83,220 freight ATMs figure to its advantage to argue that the proposed development meets section 23 of the Planning Act 2008 and on the other hand RSP seeks to conveniently reduce the ATM figure for EIA purposes by inserting another "likely" in Regulation 14.

4.7 As can be seen, RSP is flipping between two arguments to suit its case. This cannot be allowed to continue and RSP must be made to explain its position once and for all, which can only be:

4.7.1 amend the proposed development so that its effect is to increase the number of freight ATMs by 17,170 ATMs (although such an amendment would be a material change and require withdrawal); or

4.7.2 assess under the EIA Regulations 83,220 ATMs which would require further assessment and environmental information and to be fully consulted upon, also requiring withdrawal.

4.8 In addition, this RSP statement that the assessment is of projected use "*up to that which is more than a bare possibility*" appears to acknowledge that RSP's 17,170 ATM forecast is no more than a "bare possibility" rather than a robust and credible forecast in any event. See section 5 below in relation to the need case for the project.

4.9 Clearly, this also needs to be thoroughly examined and robustly tested early in the Examination. SHP will explore and help the Examining Authority test in depth the lack of robustness of RSP's approach in EIA terms. SHP will do so in its Written Representations and considers that this is a key issue for the examination which needs to be the subject of an Issue Specific Hearing to enable adequate examination of the issue and a fair and proper chance for each party to put their case.

5. LACK OF NEED CASE – (SHP ISSUE 3)

5.1 There is no NPS policy which establishes the need for further freight capability at Manston Airport. As such, it is for RSP to establish that there is a need for its proposed development and a compelling case in the public interest. The evidence supplied by RSP (in the form of the four volume report by Azimuth Associates) is deeply flawed, and requires detailed testing and interrogation during the examination in an Issue Specific Hearing to enable adequate examination of the issue and a fair and proper chance for each party to put their case.

5.2 SHP has previously supplied to both RSP and the Planning Inspectorate reports from York Aviation and Altitude Aviation which highlight highly material deficiencies in the data sources, methodology and analysis relied upon by RSP. Copies of the reports prepared by York Aviation and Altitude Aviation are attached to this representation at **Appendices 8, 11, 12 and 18.** SHP, in its Written Representations, will also provide any necessary addenda to these Reports covering the minor additions to the Azimuth reports presented in the Application, but in essence these minor additions do not change the conclusions of York Aviation and Altitude Aviation that the Azimuth evidence is deeply flawed.

5.3 The views of York Aviation and Altitude Aviation are also supported by the reports independently commissioned by TDC and prepared by Avia Solutions (attached to this Relevant Representation at **Appendices 2 and 6)**, which also reached the conclusion that the RSP proposed development for a freight focussed airport at Manston were not realistic or economically viable. Three credible and experienced aviation expert consultancies have independently exposed the forecasting relied upon by RSP as not credible with negligible supporting evidence.

"We consider the [Azimuth] forecasts to be extremely optimistic, not credible or likely, with negligible supporting evidence." Altitude Aviation Advisory (January 2018) (**Appendix 11**)

"In overall terms, the forecasts presented by Azimuth at Table 1 of Volume III are simply not credible" York Aviation (November 2017) (**Appendix 8**)

"Avia's opinion, based on updated market information since the publication of our previous study (September 2016) is consistent with our earlier view that Manston Airport does not represent a financially viable investment Opportunity" Avia Solutions (August 2017) (**Appendix 6**).

"Provision of capacity alone is no guarantee of financial success, a view reinforced by the empirical evidence of multiple failed attempts to develop profitable aviation operations at Manston Airport." Avia Solutions (August 2017) (**Appendix 6**).

5.4 The proper examination of the need case and forecasting evidence presented by RSP will require a detailed and forensic approach, and the Examining Authority should consider whether it is necessary for a technical expert assessor to be appointed to assist the Examining Authority in addressing the evidence on this issue. RSP's entire case (as summarised in the Planning Statement) relies on the need and benefits claimed in the flawed Azimuth Associates reports, not only in presenting the case for development consent to be granted, but also in seeking the grant of extensive powers of compulsory acquisition. This evidence is therefore central to the examination of a number of other issues.

5.5 RSP has provided no justification for why each element of Work Numbers 1 – 11 are considered to be part of the purported NSIP. For example, it is not clear how "*the construction of airside cargo facilities and ancillary offices*" (Work No. 1) is integral to the delivery of freight ATM capability, or how the "*construction of eight light and business aircraft hangars and associated fixed based operator terminal*" (Work No. 2) is an integral part of creating the requisite "effect" referred to in section 23 (i.e. in increase freight ATM capability). Offices and hangars have no direct effect on ATM capability.

5.6 As noted above, RSP has provided no evidence of the need for the wide ranging associated development proposed let alone made it clear why some development is not treated as associated development but part of the NSIP, including substantial employment floorspace and facilities (described as "*business facilities for airport-related activities*"), a flight training school and aircraft recycling facility located both within the Airport's operational boundary and outside the Airport on the land referred to as the "Northern Grass".

5.7 A clear case needs to be established for each element of development proposed, and RSP has not done so.

5.8 SHP will submit detailed representations regarding the appropriate scope and justification for the inclusion of associated development for the proposed development in its Written Representation.

6. FLAWED ASSESSMENT AGAINST SECTION 105 PLANNING ACT 2008 – (SHP ISSUE 4)

6.1 As the Examining Authority will be aware, the Application must be assessed against the tests set out section 105 of the Planning Act 2008 because there is no NPS in place which has effect in relation to the proposed development. Section 105 requires the Secretary of State to determine the application having regard to:

(a) any local impact report (within the meaning given by section 60(3)) submitted to the [Secretary of State] before the deadline specified in a notice under section 60(2),

(b) any matters prescribed in relation to development of the description to which the application relates, and

(c) any other matters which the Secretary of State thinks are both important and relevant to the Secretary of State's decision.

6.2 Local Impact Reports are not yet available, but TDC has a troubled history of dispute between Members and officers, with Members seeking to overrule evidence led professional advice from its officer team. The Examining Authority will note that the detailed section 42 consultation response from TDC officers was not taken into account by RSP, so a number of relevant issues raised by officers relating to local impacts and the need for proper mitigation that is appropriately secured and enforceable have therefore not been taken into account as part of (and prior to the submission of) the Application.

6.3 As set out in paragraph 9.13 of the Planning Statement (Examination Library Reference APP-084) and page 320 of the Consultation Report (Examination Library Reference APP-079), the reason for this is said to be because Robert Bayford (a councillor at the time and now the leader of TDC), wrote to RSP on 20 February 2018 asking them to disregard the section 42 response as "*unrepresentative and flawed*" as it was written by officers and had not been endorsed by Members. Subsequently, Mr Bayford has recanted that statement on 28 March 2018 and acknowledged that Members at TDC should not seek to fetter officers' exercise of professional judgement. Mr Bayford confirmed that the section 42 response should in fact be considered, as highlighted in the Consultation Report (Examination Library Reference APP-079) at Table 10.2.

6.4 Despite this, as noted RSP has still not had regard to the feedback from TDC.

6.5 The section 42 feedback from Kent County Council in relation to the need for completion of strategic highways modelling has also been entirely ignored by RSP. SHP considers that these local impact considerations will require examination in detail.

6.6 "Important and relevant" matters will include text of general application in the Airports NPS. RSP has presented policies from the Airports NPS and assessment principles selectively and has ignored policies regarding provision of information and assessment of effects to which regard should be had in examining the Application.

6.7 RSP seeks to rely heavily upon local planning policy in support of its proposed development as being "important and relevant" matters, but the development plan policies upon which RSP relies cannot be regarded as being up-to-date. RSP has selectively ignored the more recent letters issued by the Secretary of State for Housing, Communities and Local Government which state that the TDC Local Plan is regarded as out of date (see **Appendices 9 and 13**)**.** Accordingly, in RSP's analysis, too much weight is placed on the Local Plan. RSP also spends significant time reciting previous policies contained in now revoked and superseded planning policy documents. These historic and no longer extant documents are not important and relevant considerations for determination of the present Application.

6.8 The status and weight afforded by RSP to the emerging Local Plan is also incorrect and the Planning Statement reports inaccurately upon its current status and weight.

6.9 Contrary to the misleading position presented in paragraph 8.106 of the Planning Statement (Examination Library Reference APP-084), the Local Plan being progressed by TDC does not seek to retain aviation policy protection for the airfield known as Manston Airport, nor can it lawfully do so, as its own up-to-date evidence base confirms that the Airport is very unlikely to be financially viable in the longer term. The Local Plan supported by Members on 19 July 2018 makes clear that the existing policy protecting the site for aviation use only would "*not be continued or replaced with equivalent policies in the new Local Plan".*[8] Whilst text is included that recognises the existing use of the Airport and acknowledges the current DCO process, it was noted that this "*statement regarding existing use is not a policy statement. It is simply a recognition of the current planning status of the site*" and that *"in the event that a DCO*

[8] Paragraph 2.11(2) of the TDC cabinet meeting dated 19 July 2018

or CPO process is not accepted or granted, or does not proceed, the Council will need to consider the best use for this site, in the next Local Plan review after a minimum of two years".[9] TDC members elected not to follow the recommendation of its professional officers to allocate the site for mixed use development, and instead supported an option which officers advised is "*not fully aligned with the Council's own evidence base in respect of the viability of the Airport and carries a higher risk of not being found sound"*[10].

6.10 Accordingly, a plan which continued to safeguard the land for future aviation activity would be found unsound and, in light of TDC's current housing land supply requirements, would also put into jeopardy the delivery of a significant strategic housing and mixed use site for the area. There is therefore clearly significant doubt regarding the soundness of the emerging plan which now leaves the future of the Manston Airport site uncertain in the Local Plan until a review, planned for two years' time at the earliest. The Sustainability Appraisal prepared with the Local Plan by contrast identifies the site as the most sustainable site for a strategic housing and mixed use allocation for a new settlement, yet as a result of the proposed development, that land is now proposed to sit sterile.

6.11 There remains the risk that the future of the Local Plan will not be determined by TDC but by the Ministry of Housing, Communities and Local Government which is currently considering an intervention[11] due to the persistent failure of TDC (for wholly political reasons) to make progress with the adoption of a new Local Plan. Consultation on the most recent revisions to the Local Plan has only just concluded (on 4 October 2018), and TDC has yet to review the responses to consultation or to publish its submission version of the plan for Examination in Public.

7. FAILURE TO JUSTIFY COMPULSORY ACQUISITION – SHP ISSUE 5

7.1 As set out above, SHP is an "affected person" and a "Category 1" person within the meaning of section 44(1) of the Planning Act 2008. SHP objects to the inclusion of the SHP Land and its interests within the scope of compulsory acquisition powers in the proposed DCO.

7.2 SHP considers that RSP has not demonstrated and will not be able to demonstrate that there is a compelling case in the public interest for the acquisition of the SHP Land. In particular, as highlighted above, the evidence put forward by RSP in relation to the need for its proposed development, and the forecasts prepared by Azimuth Associates, are not credible or robust. Instead, proper, independent analysis by Avia Consultants[12] on behalf of TDC and by York Aviation[13] and Altitude Aviation[14] on behalf of SHP demonstrates that there is no need and no viable economic case for the proposed development.

7.3 Public interest demands, therefore, that RSP should not be granted the right to acquire SHP's Land: SHP has a realistic and viable development proposal for much needed housing and mixed use development, whereas RSP's proposal is, at best , speculative but with no realistic prospect of a long term viable operation. This cannot properly be the purpose of the Planning Act 2008 in introducing the NSIP regime.

7.4 RSP has not given proper considerations to alternatives in the context of justifying the powers of compulsory acquisition that it seeks. Alternative sites in the UK have not been the subject of any proper consideration – the entire exercise by RSP has clearly been focussed upon trying to obtain control of a lucrative proposed housing and mixed use development site.

[9] Paragraph 2.11(2) of the TDC cabinet meeting dated 19 July 2018
[10] Annex 3 of the local plan addendum draft version appended to the TDC cabinet meeting dated 18 January 2018
[11] See letter of 23 March 2018, Appendix 13
[12] Appendices 2 and 6
[13] Appendices 8, 12 and 18
[14] Appendix 11

7.5 RSP is regarding the availability of compulsory acquisition powers as the purpose of its DCO, rather than as a last resort. There have been no genuine attempts to acquire land by negotiation – RSP has not made any detailed or properly funded offers to SHP.

7.6 The case for compulsory acquisition of extensive areas of land for associated development has also not been explained. RSP has not justified why the full extent of the land proposed to be acquired is required to deliver the NSIP. In relation to the associated development proposed, this, quite clearly covers the majority of the land area being acquired and, contrary to the "Guidance on associated development applications for major infrastructure projects"[15] ('the Guidance'), is entirely disproportionate to the nature and scale of the principal development. There is no explanation as to why the development needs to be situated on the land owned by SHP and no consideration has been given as to the availability of suitable alternative sites in the area. In particular, there has been no regard to the existing oversupply of industrial floorspace of the type proposed by RSP in the vicinity of the Airport.

7.7 There are no calculations or forecasts to justify the volume or costs of supporting infrastructure required to service the proposed NSIP development.

7.8 RSP's position appears to be that there is very little realistic prospect of ATMs ever reaching beyond the 17,170 freight ATMs set out in the Azimuth reports (indeed given that RSP admits that going above that figure, so 17,171, is a "bare possibility" presumably even reaching 17,170 is similarly remote) – as such the associated development and the accompanying land take included to underpin it go massively beyond what is needed to "*support the construction or operation of the principal development, or help address its impacts*"[16] and cannot be said to be proportionate to the nature and scale of the principal development, or "*typical of development brought forward alongside the relevant type of principal development or necessary to support a particular type of project*". There is no proper link between many of the facilities (e.g. the flight school or the aviation recycling facilities) to support a case for compulsory acquisition of the land.

7.9 The associated development requirement that there be a direct relationship between the principal development and the associated development proposed is the first core principle or test set out in the Guidance. The powers in section 122 of the Planning Act 2008 authorising compulsory acquisition require RSP to demonstrate that the land "*is required for the development to which the development consent relates*". The Guidance also requires applicants to explain in their explanatory memorandum which parts of their proposed development are associated development and why.

7.10 RSP has not explained why certain works are part of "the NSIP" (without prejudice to SHP's contention that there is in fact no NSIP in the Application) and other works are associated development to that purported NSIP. This means there is no clear justification for the majority of the development proposed. Where, as in the case of RSP's Application, development has been included in the Application which is not properly part of the purported NSIP and not properly to be considered as associated development, the compulsory acquisition for that development cannot be included or justified.

7.11 SHP will present detailed evidence in its Written Representation to demonstrate that there is no case for compulsory acquisition powers to be granted over the SHP Land. SHP, also as the principal affected party, will seek to have these matter addressed by way of Compulsory Acquisition Hearings and wishes to appear in person and to present expert evidence at such hearings and, where appropriate to cross examine RSP's evidence to ensure that there is proper testing and interrogation of:

[15] DCLG April 2013
[16] Paragraph 5(i) of the "Guidance on associated development applications for major infrastructure projects", DCLG April 2013

7.11.1 RSP's case that section 23 of the Planning Act 2008 is engaged and the fundamental statutory case for compulsory acquisition, which SHP will say cannot actually be authorised;

7.11.2 alternatively, in the event that the Secretary of State, in making his decision on whether or not to grant a DCO for the Application, considers that section 23 is engaged, which elements of the proposed development can be considered to be part of the NSIP or associated development and which elements fall outside both of these descriptions;

7.11.3 further, in the event that the Secretary of State, in making his decision on whether or not to grant a DCO for the Application, considers that section 23 is engaged, the land take necessary for a 17,170 freight ATM airport;

7.11.4 as referred to in section 5 above, the purported need case presented by Azimuth Associates, which SHP can show is deeply flawed and which forms the basis of the Application;

7.11.5 as referred to in sections 8 (Funding) and 9 (Viability) below, the lack of any of the requisite information as to the funding of the proposed development, and information that would allow any credible investor to undertake even the most basic preliminary assessment of the viability and fundability of the proposed development.

7.12 It is quite clear that RSP is not only using the 82,330 ATM figure for the purposes of section 23 of the Planning Act 2008 but also for its excessive associated development and land take case. RSP's assertion that it does not need to assess this ATM figure under the EIA Regulations (as referred to above) does not bear scrutiny in light of this.

7.13 This needs to be dealt with early on in the Examination.

7.14 As mentioned above, it is also of particular concern that the protections for landowners set out in the Crichel Down rules will not apply to RSP (as a private company) and under a DCO. The DCO should prevent RSP being able to abandon its aviation proposals post acquisition and use the land for other non-airport related purposes. Should RSP not be able to make an aviation development economically successful, the site should be offered back to SHP.

7.15 SHP considers that the Compulsory Acquisition Hearings would strongly benefit from targeted cross-examination to ensure that complex areas are properly considered in the Examination.

8. INADEQUACY AND OPAQUENESS OF FUNDING – SHP ISSUE 6

8.1 SHP notes the comments of the Acceptance Inspector on both the section 55 checklist and the section 51 advice from the Planning Inspectorate published on Acceptance in relation to the "*significant risk to examination*" posed by the poor quality of the funding statement.

8.2 SHP agrees with the concerns raised by the Planning Inspectorate, which were also raised by SHP and by the Planning Inspectorate prior to the submission of the Application. RSP has had multiple opportunities to provide sufficient evidence of the availability, and source and adequacy of funding and has failed to do so. SHP considers that funding should be a principal issue for detailed testing and interrogation at examination. RSP has been given the opportunity a number of times to provide requisite proof, now it is time for the matter to be dealt with publicly in the examination without delay, especially given the Inspectorate considers that the Application is suitable for examination.

8.3 Over the last 18 months, RSP has made and failed to keep commitments to provide information about its funding. In its press statement release from 30 March 2017 (Appendix 4), RSP said that:

"*Additional, comprehensive details of our funding partners and investment arrangements will of course be provided to PINS as part of the DCO application providing solid evidence of our ability to meet all of the financial obligations associated with the acquisition, reopening and operation of the airport*".

This information was not supplied.

8.4 SHP's written responses will highlight the complete lack of information regarding the ability of RSP to fund either the land acquisition costs or the costs of construction of the proposed development. As acknowledged in the funding statement, "*almost all of the land required for the project is not owned by RiverOak*". It does not own any airport assets anywhere else and has no trading history. Again, this all underlines what a highly unusual set of circumstances is presented by this purported DCO.

8.5 Usually, Special Purpose Vehicle ('SPV') companies promoting DCOs are backed either by Government departments or by UK registered parent companies (such as regulated utilities) or by publicly listed companies with audited accounts, extensive assets and track records for delivery of similar projects and detailed public information regarding shareholdings and governance.

8.6 RSP, on the other hand, is a recently incorporated SPV company with no trading history. Its most recent set of accounts filed at Companies House are for the year ended 31 July 2017 and they are dormant company accounts, showing that the company has a share capital of £1 and at that date had never traded (see **Appendix 16**).

8.7 In SHP's direct experience, RSP has defaulted on payment of modest licence fees agreed for access to land, with these sums only paid following threat of a statutory demand being issued. The sums owing were eventually discharged by a third party, Freudmann Tipple Limited, and not by RSP itself or by the shareholders whose resources are relied upon in the Funding Statement, suggesting that RSP itself has not even the financial means to pay for survey access to the land.

8.8 Careful and thorough scrutiny at the Compulsory Acquisition Hearing, (which SHP requests and will attend) is required in order to test whether RSP can meet the level of evidence required to justify the grant of any statutory powers (let alone compulsory acquisition) to such a person or body, which to date can only be described as an empty shell.

8.9 The Secretary of State is asked by RSP to grant extensive powers, interfering with the Article 1 Protocol 1[17] rights of others, to a company with an opaque **offshore** shareholding with no evidence that any money is in fact ring-fenced and available to meet the costs of the land acquisition and compensation.

8.10 RSP's funding statement is entirely silent on the identity and status of Riveroak Manston Limited, a shareholder with a 10% stake in RSP. The funding statement asserts that £15,000,000 has been "committed" by shareholder MIO Investments Limited (a Belize registered company), but there is no evidence of this. No accounts for MIO have been lodged, and there is no information about the trading history or previous investments delivered by MIO Investments to show that this offshore company is in any way a credible backer for a project of this size. RSP's press release on 30 March 2017 (**Appendix 4**) noted that MIO Investments has been established as a specific funding vehicle to hold its (anonymous) investors' financial interests in the proposed development, and therefore it has no other investments.

[17] Protocol 1, Article 1 of the European Convention on Human Rights, Right to peaceful enjoyment of property

8.11 It is noted that RSP has stated that it would be happy to supply further evidence of funds and it has of course been challenged by the Planning Inspectorate and SHP to do so. To date, despite clear guidance that a funding statement "*should provide as much information as possible about the resource implications of both acquiring the land and implementing the project for which the land is required*" ("Guidance related to procedures for the compulsory acquisition of land", DCLG September 2013), RSP has failed to provide sufficient information. RSP has evidently not provided as much information as possible, rather it has, in fact, provided as little as it thought it could possibly get away with, again providing further evidence that this is nothing more than a speculative land grab.

8.12 RSP's case is to invite the Secretary of State to rely upon the previous experience of anonymous interested investors, and the experience of RSP's directors, but does not describe what this experience is or who these investors are. It is clear that no reliance can be placed on this.

8.13 SHP will set out in detail in its written evidence the history of business failure(s) and financial and other impropriety on the part of some of RSP's directors, which are relevant and makes reliance on these entirely empty assurances untenable.

8.14 Beyond that, there is no evidence at all that there is any prospect of a credible investor agreeing to invest the hundreds of millions of pounds necessary to deliver the proposed development given the lack of any business case being set out in RSP's Application. It is SHP's case, which it will support with evidence, that no credible investor would invest £300m (as per RSP's Funding Statement) for the construction of the proposed development. See further section 9 below in relation to viability.

9. LACK OF VIABILITY OF THE PROPOSALS (SHP ISSUE 7)

9.1 RSP asserts that it has assessed the commercial viability of the proposed development. This does not however form part of the Application materials. There is no evidenced business case for the proposed development that would allow this to be assessed.

9.2 As noted earlier, the history of Manston Airport, with its multiple failed attempts at a commercially viable civil aviation aerodrome, clearly illustrates that the Airport has consistently run at a significant loss in the past, unable, due to its poor connectivity and limited market appeal, to generate sufficient freight or passenger traffic to be profitable.

9.3 The only publicly available evidence currently is the Avia Solutions studies commissioned by TDC, which demonstrates that freight operations at Manston Airport are not viable. (**Appendices 2 and 6**). The emerging draft Local Plan, which RSP prays in aid as supportive of its proposed development, in fact leaves the airfield known as Manston Airport unallocated and, drawing on the Avia Solutions work, states clearly that "***airport operations at Manston are very unlikely to be financially viable*** *in the longer term, and almost certainly not possible in the period to 2031*."

9.4 SHP's consultants, York Aviation and Altitude Aviation, also share the view of Avia Solutions that airport operations and the freight focussed operation proposed by RSP are unlikely to be commercially viable (see the report attached at **Appendices 8, 11, 12 and 18**).

9.5 RSP must be called upon to present a full viability appraisal as part of the examination (which should then be the subject of an Issue Specific Hearing) of the proposed development. This should include as a minimum:

9.5.1 details of the land valuations used in the model;

9.5.2 details of the assumptions and projections for build costs for each element of the proposed development (including all off site roads, costs for establishing the "Biodiversity Area" and other infrastructure costs); and

9.5.3 component revenue assumptions and evidence that there is some prospect of identifiable freight and passenger operators committed to operating flights out of a re-opened Manston.

9.6 It is SHP's view that a full and robust viability appraisal will only serve to demonstrate that the RSP proposed development is entirely unrealistic.

9.7 A viability appraisal will also demonstrate the extent to which the purported NSIP is being cross subsidised by commercial development, which in reality is entirely unconnected to the airport operation. Any development that forms such a function cannot be consented through a DCO and must be removed. This is because it does not meet the relevant statutory tests.

9.8 It is vital, therefore, that thorough examination takes place to determine which elements of the proposed development are not part of the NSIP (without prejudice to SHP's contention that there is no NSIP in this case) and the function that that development performs pursuant to the "Guidance on associated development applications for major infrastructure projects"[18].

9.9 The current Funding Statement and other application materials contain no information on how the estimated land compensation sum of £7.5m has been calculated. SHP does not consider that this figure represents anywhere near a full and proper valuation of the costs of land acquisition for the proposed development.

9.10 Similarly, the Funding Statement and other application materials merely assert that the total construction cost of the proposed development will be £300million without any proper breakdown or explanation as to how this figure has been arrived at, or how this expenditure is to be phased through the life of the proposed development

9.11 There is no consideration given in the Funding Statement or elsewhere in the application to the lifetime costs of the proposed development, or how ongoing maintenance costs are to be met from expected revenues. It is notable that the Airports NPS sets out the expectation that an Applicant "*should demonstrate in its application for development consent that its scheme is cost-efficient and sustainable, and seeks to minimise costs to airlines, passengers and freight owners over its lifetime"* .[19] Whilst the NPS is specific to Heathrow, the same expectation on the type of information necessary to support any Airport NSIP should be applied to RSP's application for Manston. Clearly the likely lifetime costs will have a significant bearing on the likelihood of landing charges being able to be maintained at a level that is commercially viable and attractive to freight and passenger operators.

9.12 There is no information on the expected landing charges, which would be necessary in order to inform a view on the likely economic viability of the proposed development. RSP has no firm commitments from any airlines (passenger or freight) that they would use a re-opened Manston Airport, and in the absence of information on the likely charges, clearly no airline would make any binding commitment.

9.13 SHP considers that viability is fundamentally linked to the compulsory acquisition case, and that there can be no compelling case in the public interest for compulsory acquisition of land for a project that will never be financially viable or deliverable.

9.14 Accordingly, SHP requests that viability is considered as principal issue in the examination into this purported DCO.

[18] DCLG April 2013
[19] Airports National Policy Statement: new runway capacity and infrastructure at airports in the South East of England (June 2018) paragraph 4.39

10. DEFICIENT ENVIRONMENTAL IMPACT ASSESSMENT (SHP ISSUE8)

10.1 SHP prepared detailed feedback on the Preliminary Environmental Information Report published by RSP with its section 42 consultation (attached to this representation as **Appendix 12**). Despite such detailed feedback, the majority of comments have not been addressed in the final Environmental Statement ("**ES**") submitted with the Application. SHP therefore reiterates the points raised during section 42 consultation and will elaborate on these points as part of its submissions to the examination.

10.2 SHP also shares the concerns raised by the Planning Inspectorate in the section 55 checklist and section 51 advice given post Acceptance as to the significant limitations in the ES.

10.3 As discussed in section 4 above, SHP considers that RSP is in error in failing to properly or adequately assess and provide information as to the likely significant effects of its proposed development, as no consideration has been given to the effects of the airport operating at capacity, and no constraints in the draft DCO which would prevent that capacity being reach or constrain the environmental effects. As we state in section 4 above, Regulation 14 of the EIA Regulations does not permit applicants to only assess the likely significant effects of the "likely" proposed development, rather applicants must assess the "*likely significant effects* ***of the proposed development****…"* (our emphasis). The "proposed development" in this case, is that set out in Schedule 1 of the draft DCO which, according to RSP's Application, would give rise to a capacity of 83,220 freight ATMs. That ATM figure would be the consequence should the draft DCO be authorised and that ATM figure, therefore, should be assessed under the EIA Regulations. It is, quite simply, a farce for it not to be. The only circumstance where that ATM figure should not be assessed, is if the Application were amended so that its effect would be to increase the number of freight ATMs by 17,170 ATMs. Accordingly, the whole ES is currently deficient on the basis of an incorrect assessment; this is an overarching comment across all environmental topics.

10.4 Furthermore, and worryingly, there is no draft Operational Management Plan that can be properly tested and examined to determine whether it would present adequate mitigation and control of effects, and no cap on ATMs. SHP considers this is a key issue for examination.

10.5 As the Examining Authority will also note, there are significant gaps in survey data which currently undermine the validity and robustness of the ES. These gaps were identified prior to submission by both SHP and the Planning Inspectorate and RSP has chosen to submit the Application without addressing those criticisms. A number of the missing surveys are seasonally sensitive, and will take some time to complete (the estimates in the chapter suggest that the various surveys will be undertaken over the period from December 2018 to September 2019). Case law (*R v Cornwall County Council ex p Hardy*[20]) has long established that decision making cannot be taken without appropriate species surveys, since surveys might reveal significant adverse effects to be likely on protected species. The case clearly establishes that it is not lawful or appropriate for survey results to be deferred until a later decision making stage (in this case on discharge of requirements) as the Secretary of State will not be in a position to know whether the ES before him represents the full environmental information required by the EIA Regulations, or whether the proposed mitigation is adequate, before determining the Application. As with our other comments on the failures of the Application, which have been highlighted to RSP at the section 42 stage, given the Planning Inspectorate now itself considers that the Application is ready for examination, it is time for RSP to be tested, sooner rather than later, in a proper and thorough examination over these significant gaps in environmental data. Any time afforded to RSP to carry out these surveys prior to the start of the

[20] [2001] Env LR 473

examination would simply go against the Inspectorate's decision to accept the Application under section 55 of the Planning Act 2008.

10.6 SHP reiterates the comments raised in its section 42 consultation response (which is attached at **Appendix 12**).

10.7 SHP would like to draw the Examining Authority's attention to the following issues and topics (without repeating the matters set out in its section 42 consultation response) in particular which should be considered as principal issues in the examination:

10.7.1 RSP's approach of assessing what it considers to be the widest possible envelope of effects is not robust, as in numerous instances it is not informed by sufficient information to be confident that the parameters selected for assessment do in fact represent the realistic worst case scenario for assessment. If the correct parameters were to be used (i.e. the likely significant effects of the 83,220 ATM capability of the proposed development), it is likely that the effects reported in the ES would be incorrect, and the mitigation proposals included in the Application would be inadequate. When properly assessed, there may be a requirement for mitigation measures which require offsite works to be carried out (e.g. to highways) or additional mitigation land (e.g. for ecological mitigation) which does not form part of the Application.

10.7.2 There is no information in the ES which accurately describes how the airspace implications of the proposed development have been assessed. Paragraph 3.3.197 of the ES indicates that a "*route envelope*" approach has been used to capture the "worst case" but this "*route envelope*" is not described at all in either the ES or in the CAA Interface Document (Examination Library Reference APP-081). As Manston Airport is currently closed, there is no existing airspace envelope to use as a starting point. There has been no public consultation relating to RSP's proposed development on the approach taken in the ES and there is no transparency as to what airspace assumptions, holding areas/stacks etc. have been factored into the assessments in the ES. This has the potential to affect several topic areas (including ecology, noise and air quality) and is a matter which should be the subject of interrogation as part of the examination process.

10.7.3 Any "route envelope" assumptions would need to take into account changes likely to be coming forward to airspace in the South East, as well as the further changes likely to come forward in light of Heathrow's third runway proposal. Unlike Manston, there is already information in the public domain regarding the principles for the future Heathrow airspace changes[21] and this does not appear to be reflected in the ES.

10.7.4 For EIA purposes, it is not sufficient to hide behind the separate approval processes for airspace change. The underlying information and assumptions are critical to the assessments required to support the Application.

10.7.5 The traffic and transport assessment has not been informed by the outcome of strategic transport modelling. SHP notes and supports the comments of the highway authority, Kent County Council, at section 42 consultation, and considers that this is an area which requires detailed examination. RSP should produce the strategic model. As it has not been carried out prior to submission of the Application, the County Council, Highways England and local communities are unable to comment on it. The process under the Planning Act 2008 is intended to be a front loaded process in which key information is produced and consulted upon prior to applications being

[21] Heathrow Airspace Consultation 1, January 2018 – March 2018

submitted. This has not happened and whilst SHP considers that the Application is therefore deficient, the Inspectorate has considered the Application suitable for examination. Accordingly, the Examining Authority must, as soon as the examination has commenced, request that RSP carry out this modelling, which in turn will need to be consulted upon under the EIA Regulations. It would be manifestly inadequate that such important data be left until post consent given that the results of the model may result in further additional off-site mitigation, which then needs to be secured, delivered and put into the viability model.

10.7.6 The strategic transport modelling work is necessary in order to demonstrate that the traffic and transport impacts can be accommodated, and to ensure that any mitigation required to support the strategic road infrastructure in the vicinity of the airfield is properly considered as part of the examination. We would note that SHP's own planning application was submitted with the results of the strategic model that also gave rise to various mitigation measures. Given the major commercial component of RSP's scheme (which would be a major EIA development in its own right under the Town and Country Planning Act 1990), we find it incomprehensible that an application for an airport can even be submitted without the strategic modelling being carried out.

10.7.7 Air Quality

(a) A number of comments raised during section 42 consultation in relation to the PEIR have not been addressed in relation to the final Air Quality assessment in the ES, raising concerns as to the adequacy of the assessment.

(b) The proposed development is adjacent to the Thanet Urban Area AQMA – the assessment of impacts on air quality are therefore particularly sensitive and must be approached robustly, as the proposed development reintroduces aircraft movements and associated traffic to what is currently a closed airfield.

(c) The latest emissions factors (published in December 2017) have not been used in the preparation of the ES. This point was raised in the SHP response to section 42 consultation but has not been addressed. RSP should carry out sensitivity testing to ensure that the output of their assessment is not affected by the application of the most up to date emissions factors. No proper consideration has been given to this in the ES.

(d) The ES chapter notes that the Defra background maps which are used to calculate the future baseline already include the operation of the former airport. The chapter states that "*the small amount of double counting is considered acceptable as a conservative assumption*." What cannot be ascertained is whether this may result in the incremental contribution of the proposed development being underestimated relative to the baseline.

(e) The absence of proper strategic transport modelling is also a severe limitation to the air quality assessment. Until the strategic modelling is completed, RSP and the Examining Authority cannot know whether the assessment properly captures the full extent of traffic movements and impacts of potentially needing new road infrastructure. The Air Quality assessment must therefore be revisited once the proper strategic transport modelling has been completed.

10.7.8 Ecology

(a) A number of the comments raised during section 42 consultation in relation to the PEIR have not been addressed in the final ES. In particular, the lack of survey data (discussed above at paragraph 10.5) remains an issue in relation to the levels of confidence that can be attached to assessment conclusions in the absence of survey data. In particular, the conclusions of the Report to Inform Appropriate Assessment (Examination Library Reference APP-044) are undermined by the lack of a full and appropriate survey baseline.

(b) The ES makes clear that the compensatory habitat proposed to be located in an off-site location (referred to as parcel 1362) is not as extensive as the areas of habitat proposed to be lost as part of the Application. We would expect to see a proper net gain/biodiversity offsetting calculation, in order to assist the Examining Authority, as national planning policy[22] is clear that sustainable development should seek "*positive improvements in the quality of the built, natural and historic environment, as well as in people's quality of life, including (but not limited to): …moving from a net loss of bio-diversity to achieving net gains for nature*", supported by the Natural Environment White Paper[23]. Paragraph 109 of the National Planning Policy Framework is clear that Government's expectation is that the "*planning system should contribute to and enhance the natural and local environment by minimising impacts on biodiversity and providing net gains in biodiversity where possible*". The area proposed for replacement habitat is not within the Application redline boundary and no information is provided in the Mitigation and Habitat Creation Plan or the ES regarding the ownership of the land and how the measures set out (including in-perpetuity management) are to be secured and delivered.

10.7.9 Report to Inform the Appropriate Assessment

(a) SHP's consultants are of the view that the conclusions of the report that there are no significant effects likely is likely to be premature (especially following the case of *People Over Wind and Sweetman v Coillte Teoranta*[24]) in the absence of key information in relation to the strategic transport model, flight path data/airspace proposals and ecological survey data. Until assessments have actually been completed which take into account this data, the Examining Authority will not have full and robust information upon which to base a recommendation.

10.7.10 Noise

(a) The noise assessment should be updated to reflect the output of proper strategic transport modelling, which is currently missing from the assessment.

(b) There is very little information in the ES chapter to explain the basis on which the assessment of noise arising from the extensive proposed commercial development has been assessed. The proposed development includes industrial uses such as the aircraft recycling facility – noise assessment should be detailed enough to allow the effects of such activities to be properly assessed.

[22] NPPF paragraph 9
[23] The Natural Choice, Securing the Value of Nature, 2011
[24] *People Over Wind and Sweetman v Coillte Teoranta* (C-323/17)

(c) It is not clear from the ES what "worst case" assumptions have been made in relation to noise from night time flights. Chapter 3 states that "*a realistic assumption has been made*" for the purposes of noise modelling, and explains the quota system proposed, but neither Chapter 3 nor Chapter 12 set out what has been assessed.

(d) Significant adverse effects are predicted for 12 non-residential receptors (including 7 school / nursery facilities). Proposed mitigation is providing reasonable costs for insulation and ventilation under the noise insulation scheme. However, the mitigation will only have effect for receptors using the inside of these premises. No assessment of implications of the proposed development on the effectiveness of that outdoor space for sensitive facilities has been undertaken. There is a lot of research on how noise in outside spaces affects the learning of children, and this failure by RSP to address these effects needs to be examined as a principal issue under noise.

(e) It is not clear from the ES how many properties would fall between the LOAEL and SOAEL, where significant adverse effects could be experienced. It cannot simply be the case that those properties experiencing SOAEL are the only properties that will experience significant adverse effects; that is an arbitrary approach. The methodology section of the ES explains that levels above the SOAEL will be significant for EIA purposes, and that levels between LOAEL and SOAEL will be evaluated against a list of considerations to determine the magnitude of significance of the effect under the EIA Regulations (paragraph 12.6.75). However, it is not apparent that this has been done - the assessment for aircraft noise reports, for impacts on dwellings in Year 20, that 13,046 dwellings are above the LOAEL and 115 dwellings above the SOAEL. At night time 16,465 dwellings are reported above the LOAEL and 225 dwellings above the SOAEL. There is no discussion of how the dwellings between the LOAEL & SOAEL have been considered or the conclusion in EIA terms. The summary of significant effects only refers to properties above the SOAEL as experiencing a “significant” effect. We consider that this is too blunt and does not properly reflect the effects.

10.7.11 Socio-economics

(a) As raised by SHP in its Section 42 consultation response, the ES assumes that there are no significant changes to the future socio-economic baseline. There is no further explanation of this approach. This assumption is not robust as it fails to take account of the population growth and predicted background economic growth that would take place in Thanet irrespective of whether RSP's proposed development is delivered.

(b) Assumptions regarding the proportion of the workforce to be sourced from the immediately surrounding communities in Thanet appear to be highly optimistic. If workers are likely to need to move to the area for construction and operation, this is not accurately assessed in the chapter. Elsewhere, Azimuth reference construction workers staying in local hotels, which is inconsistent with the assertion that the workforce will be a local workforce. The ES chapter acknowledges that “*the installation of specialist plant may not be able to be completed by typical or local construction workforces*” (paragraph 13.8.5), but the assessment assumes the

workforce will be local, and will live locally. The information in the chapter is therefore contradictory. This feeds in to the assessment made in the ES of impacts on community facilities, where the ES also makes the assumption that the construction workforce will be local and will therefore not result in additional demands being placed on educational, healthcare and community services.

(c) The case for tourism benefits to the local area arising from the proposed development is unclear, with the ES acknowledging explicitly that the connection between tourism benefits and the operation of the airport are unclear (see paragraphs 13.8.80-13.8.81). Despite the lack of any evidence to underpin the connection, the ES assesses the socio-economic effects of tourism as a minor beneficial significant effect. This is not a robust conclusion given there is no evidence.

(d) The socio-economic assessment does not reflect the fact that the need case is based on taking freight away from other UK airports. The effect of this supposed diversion of trade from other UK airports and related effects on employment has not been properly assessed – the text in the ES only focusses on airports in London and the South East, whereas the analysis prepared by York Aviation evidences the likelihood that for the proposed development to make any economic success, trade would have to be diverted from other UK airports who have room for expansion and well established facilities.

(e) The assessment of impact on housing need is not robust and does not properly address concerns raised by SHP and TDC in relation to the potential for construction worker and operational worker migration to the area and its impact on housing needs.

10.7.12 Landscape and Visual Impact

(a) Reliance is placed in the ES on mitigation proposals which are not properly described and which cannot be properly taken into account. There are references to various measures including bunding and screen planting but the detail of what the mitigation will comprise is proposed by RSP to be agreed post-consent. Similarly, there is no proper lighting assessment, with RSP proposing to defer consideration of this aspect until post-consent. None of this is adequate and will not allow the Examining Authority or the Secretary of State to draw robust conclusions on the efficacy of the proposed mitigation.

10.7.13 Climate change

(a) Emissions in relation to end of life and decommissioning activities are not considered in the assessment, and should at least be considered quantitatively.

(b) A carbon footprint should also be prepared to show the Airport's carbon footprint at re-opening and also when operating at its full capability.

10.7.14 Major Accidents and disasters

(a) RSP's comments regarding the adequacy of a 1km study area for consideration of major accidents and disasters ahead of the flight

paths for the Airport being determined via the CAA process is inadequate and a wider assessment is required.

(b) There is no information on the safeguarding zones (in relation to Obstacle Limitation surfaces) around the Airport. These may have implications for the design of new facilities proposed and commercial development on adjacent land and this does not appear to have been considered.

(c) The future baseline for this topic area has not given consideration to any likely future population changes over the assessment period and is therefore not robust.

(d) The commentary on incorporated measures to address safety do not give any detail on how the security and resilience of the Airport can and have been addressed in the design process. RSP states that relevant CAP and CAA guidelines will be followed but does not explain how these have influenced design or assess whether the proposed design meets these standards.

(e) Please see also comments in section 11 below.

10.7.15 The above and the Appendices accompanying this representation set out SHP's current views on the failure of the environmental assessment. SHP reserves the right to produce further evidence on these points once the examination commences and in accordance with the examination timetable.

11. LACK OF PUBLIC SAFETY ZONE INFORMATION– SHP ISSUE 9

11.1 No information has been provided regarding the likely public safety zone for a re-opened Manston Airport, despite the proposed development being for the reopening of an airport with a capability of 83,220 ATMs, and a fleet mix which includes a range of freighters from around the world which are expected to arrive and take off from the Airport heavily laden. The likelihood and size of the required public safety zone and its potential blighting effect should be clearly explained as part of the Application, to allow consideration of "*risks to human health, cultural heritage or the environment (for example due to accidents or disasters) in relation to crash risk*" as required by the EIA Regulations.

12. SHP'S PROPOSALS FOR THE MANSTON AIRPORT SITE - A CREDIBLE AND DELIVERABLE SCHEME IN CONTRAST TO RSP'S PROPOSALS– SHP ISSUE 10

12.1 SHP is a JV comprising:

12.1.1 80% shareholding by Invicta Asset Management Limited, which is controlled by experienced major mixed-use developers, Trevor Cartner and Chris Musgrave. Trevor Cartner is also Chairman of Helios Property Group. Helios Property Group and Mr Cartner are master-developers with a successful track record of leading major residential and mixed-use schemes. Mr Cartner and Mr Musgrave recently developed the Discovery Park business park scheme in Kent, having successfully revived the site (located near Manston at Sandwich) bringing 2,000 extra jobs following the exit of long term occupier Pfizer. In addition, they are developing Wynyard Park and Tunstall Park in the North East and Flaxby Park in Yorkshire which together account for some 10,000 new homes and 2 million square feet of commercial space. Invicta is providing SHP with an experienced team which has master planned the Manston Airport site as a major vibrant, mixed-use and sustainable new settlement community called "Stone Hill Park" to provide thousands of much needed homes and jobs to the area, with a current planning application submitted and progressing. Further significant

work is being undertaken in relation to the SHP project and proposals are being progressed, though the RSP proposed development is causing delay and uncertainty and consequential losses to SHP given the threat of compulsory acquisition. SHP is strongly committed to progressing the SHP proposals despite the RSP proposed development;

12.1.2 20% shareholding by Highland and Universal Investments Limited, a highly experienced private equity investment company.

12.2 SHP and its shareholders are all incorporated in England and Wales, and are therefore subject to the transparent filing requirements of Companies House.

12.3 SHP has been the freehold owner of the SHP Land since October 2014. Airport operations at the Airport ceased in May 2014, following the failure of repeated efforts to deliver viable airport operations.

12.4 SHP wishes to progress proposals to transform this brownfield site into a vibrant and exciting sustainable new settlement, as a dynamic place to live, work and play, delivering a sustainable new community and much needed new housing and jobs.

12.5 Given that it has been consistently shown that airport operations at Manston Airport are unviable, and with TDC's own independent report concluding that "*airport operations at Manston are very unlikely to be financially viable in the longer term, and almost certainly not possible in the period to 2031*"[25], re-development of the Manston Airport site (i.e. the SHP Land) as a mixed use scheme is the only sensible course of action to take. This is in line with officers' repeated recommendations that the site should be allocated for comprehensive mixed used development.

12.6 In May 2018, TDC validated SHP's enhanced planning application for a new settlement that incorporates 3,700 homes for all stages of life; a business park focused towards advanced manufacturing and emerging industries (supporting c. 2000 direct jobs); Community facilities (including schools, a GP surgery, dentist, pharmacy, convenience stores etc.); regionally important sports and leisure facilities, including Kent's only 50-metre Olympic sized swimming pool; revamped Aviation museums, together with a 1200 m runway catering for vintage aircraft (acknowledging the aviation heritage of the site); and over 250 acres of open space, including numerous walk ways, cycle tracks and other environmentally friendly features providing sustainable public access to land that had been historically restricted for over 100 years. The target date for determination of the application is 31 December 2018.

12.7 There is an acute, sustained housing need in the District and TDC has consistently failed to meet its annual housing delivery targets. SHP's proposals would provide thousands of new homes and jobs for local people including employment opportunities for the young and specialised housing for older people, important transport infrastructure upgrades (including the delivery of a key transport link between the A22 and Manston Road forming part of TDC's Transport Strategy), and essential investment of hundreds of millions of pounds into Thanet District and the Kent region. SHP's plans for a vibrant and sustainable new settlement would provide a huge boost, not just locally, but regionally and nationally in terms of the pressing need for housing, jobs and high quality sustainable development.

12.8 The importance of this site locally, regionally and nationally, to housing need and the economy cannot be overstated. The Manston Airport site was judged in the Local Plan Sustainability Appraisal to be the most sustainable location for a new settlement, and would represent the largest opportunity for a strategic housing development within the District, and also the largest brownfield site.

[25] Avia Solutions – see report attached at Appendix 2

12.9 In contrast to the position in relation to RSP's proposed development, SHP has already submitted to TDC a full viability appraisal for its proposed development, which demonstrates that the development proposed by SHP is deliverable, with underlying data demonstrating that the build costs and land costs have been properly accounted for. The fact that the owners of the Manston Airport site have submitted such an appraisal under the Town and Country Planning Act 1990 regime, when RSP, who are seeking to compulsorily acquire the site and are under the nationally significant regime, has not, demonstrates the complete lack of transparency and scrutiny that is currently the theme of RSP's proposed development. Given the huge implications of RSP's proposed development, this simply cannot be right and SHP urges the Examining Authority to require RSP to provide a full and detailed viability appraisal for scrutiny as indeed SHP has already provided in relation to its own application.

12.10 The existence of credible and fully detailed alternative proposals for the use of the land by its current owners, supported by the emerging Local Plan evidence base, is an important and relevant consideration for the examination.

13. CONCLUSION

13.1 As outlined above, SHP **objects** to the Application.

13.2 For the reasons set out in section 1.3, the Application is highly unusual, and affected by several fundamental flaws and material omissions that require it to be exposed to a rigorous examination process by the Examining Authority. The extent of the issues that will need to be tested means that in SHP's view, a panel of experienced Examining Inspectors will be required in order to be able to complete the examination within the statutory six month timeframe.

13.3 SHP considers that RSP has failed to demonstrate that its proposed development meets the thresholds to be considered as an NSIP. Whilst the Application has been accepted by the Secretary of State for examination, this acceptance decision was based on the Application before him but without reference to any other material. Whilst this may be the normal procedure, this Application is like no other that has been submitted under the Planning Act 2008.

13.4 This is not only the first application under section 23 of the Planning Act 2008, but RSP does not even own the airport in question. Unlike other potential NSIPs where it is clear whether or not the thresholds in the Planning Act 2008 are met (for example, a generating station that is above 50MWe is clearly an NSIP), section 23 of the Planning Act 2008 requires the Secretary of State to first identify the current capability of the airport. The Acceptance Inspector, on behalf of the Secretary of State, has based his acceptance decision on the information contained in the Application. However, RSP does not own Manston Airport and clearly has a vested interest in putting forward information that lends itself to satisfying section 23 of the Planning Act 2008. The assumptions used by RSP in its Application on current capability are wrong and need to be examined so that the Examining Authority, and the Secretary of State, can be confident in their respective reporting and decision making that the Application can actually be determined under section 23 of the Planning Act 2008. This point has not been tested under section 55 of the Planning Act 2008.

13.5 Under Section 87 of the Planning Act 2008, it is for the Examining Authority to decide how to examine the Application. In this unique and unusual case, and where this is the first application under section 23 of the Planning Act 2008 and with no NPS, it is imperative that the current capability of Manston Airport is examined and robustly tested.

13.6 Given SHP is the owner of the airfield known as Manston Airport and therefore has the necessary insight into the facilities and infrastructure at the airfield, it is clearly appropriate, indeed essential, for the Examining Authority to now hear from the owner,

SHP, as to its views on the NSIP Justification paper (Examination Library Reference APP-049).

13.7 Furthermore, SHP considers that RSP has failed to establish a need case for its proposed development, or to demonstrate a compelling case in the public interest for the compulsory acquisition powers over the SHP Land.

13.8 SHP considers that the Application is manifestly deficient in several respects including in relation to missing information in the ES, and the approach to EIA and to the regulation of operational environmental effects.

13.9 RSP has failed to provide evidence of the availability of funding to cover the costs of compulsory acquisition and property blight arising from the proposed development. RSP's funding statement does not provide any credible evidence of investors willing to fund the estimated £300m construction costs. There is no information on which to understand how either the land acquisition cost figure quote or the construction costs quoted have been determined.

13.10 The independent evidence commissioned by TDC, confirmed by the advice of SHP's expert aviation consultants is that freight operations at Manston are not viable. RSP has not supplied any business case or viability appraisal that would demonstrate that there is any realistic prospect of a re-opened Manston being commercially successful even if the forecasts (which the weight of evidence demonstrates are not credible) were delivered.

13.11 There is no NPS support for the proposed development, and the emerging Local Plan does not continue the previous policy support in the adopted Local Plan. The intention of RSP's Application is to acquire a valuable development site and to obstruct the proposals by SHP to deliver a housing-led regeneration of the site. SHP's plans for the site are well advanced and due to be determined later this year. SHP, in contrast to RSP, has a detailed ES and viability appraisal to underpin its proposals, and planning officers at TDC considered the site to represent the most sustainable location for a new settlement, a significant contribution towards meeting the need for new housing in the area.

13.12 SHP therefore considers that the Application should be wholly rejected, and will prepare detailed written evidence setting out SHP's case in full.

13.13 SHP wishes to appear at Issue Specific Hearings and at Compulsory Acquisition Hearings accompanied by expert witnesses to assist the Examining Authority in interrogating the case for development put forward by RSP.

13.14 SHP considers that this is an appropriate case for the Examining Authority to consider whether the services of expert technical assessors would be of benefit to the examination to assist in the proper consideration of the technical evidence on the need for the proposed development, the business case and viability of what is proposed.

13.15 SHP also considers that it is likely to assist the Examining Authority and the Secretary of State for certain topic areas to be supplemented by cross examination by Counsel of key witnesses (especially in relation to the compulsory acquisition case advanced by RSP, and the need case, viability and funding cases that are fundamentally linked to it).

13.16 SHP asks the Examining Authority to consider the following issues as principal issues for the examination of RSP's Application:

13.16.1 Section 23 of the Planning Act 2008, the current capability of the airport and whether the proposed development is an NSIP ;

13.16.2 Associated development;

13.16.3 Clarity in relation to the scheme description for the purposes of section 23 and for the purposes of EIA;

13.16.4 The need case for the proposed development and the need for a cap on freight and passenger ATMs at 17,170;

13.16.5 Compulsory Acquisition (which necessitates examination on whether or not section 23 is engaged);

13.16.6 Funding;

13.16.7 Viability;

13.16.8 Environmental mitigation and in particular the regulation of effects during operation; and

13.16.9 EIA, including

(a) Transport effects and the need for strategic modelling

(b) Air quality

(c) Noise

(d) Ecology

(e) Socio-economic effects

SHP and its team of professional advisors are ready to make Written Representations to the examination and to appear at hearings. SHP therefore encourages the Examining Authority to make the necessary arrangements for the Preliminary Meeting and to open the Examination so that these issues, and those of others, can be aired at the earliest opportunity.

Pinsent Masons LLP

8 October 2018