From:	[redacted]
To:	Manston Airport
Subject:	Illegal Levels of Pollution for 35,000 Ramsgate Residents.
Date:	02 December 2021 18:10:49
Attachments:	ILLEGAL AIR POLLUTION Manston Cargo Hub.docx
Importance:	High

For "For the attention of the Manston Airport Case Team"

And "Head of Transport Infrastructure Planning."

Dear Sirs/Mesdames,

Just how courageous is your Minister ?

I write in response to the most recently repeated Department of Transport's Request for Comments and Further Information. I have submitted evidence, previously, on the subject of illegal air pollution, as a result of studies between 2014 and 2016 at Los Angeles, Atlanta and Schiphol, Amsterdam. Evidence from Los Angeles is particularly relevant as it measures pollution in nearby housing estates all year around, and at times outside flying schedules.

To this end, I have attached my previous, **unedited**, submission to the Planning Inspector, which points to evidence that a cargo hub at Manston would unleash toxic, harmful and life reducing pollution on 35,000 unwitting, unsuspecting residents of Ramsgate, whose homes lie directly under the Manston flight path, **within 1 km** of the beginning of the runway. **No other airport in the world** has so many vulnerable residents living that close to a busy airport, as currently live in Ramsgate.

Again, there is now masses of evidence, worldwide, to prove that these levels of air pollution significantly reduce life expectances and induce health threatening illnesses. The executive director of Unicef, which carried out the work with the Royal College of Paediatrics and Child Health, **said British children were "in the grip of a public health emergency."**

PM2.5 which is created **in abundance by planes and airport equipment**, is now being linked, empirically and medically, with just about every type of serious human illness and long term health syndrome, from heart attacks, stroke, damaged immunity and multiple sclerosis to COPD and cancer.

Moreover, a game changing decision was made by Philip Barlow, coroner for inner south London, who ruled early in 2020, that air pollution was a cause of the death of nine-year-old Ella Kissi-Debrah in February 2013. It was the first time that toxic air had been given as a cause of death in the UK and will be seen as a landmark decision in future claims against local and central government. NO2 and Particulate Matter (PM) were specifically mentioned.

In the attached evidence, it can be seen that fine and ultra-fine particles, PM2.5* is not only more dangerous than coarse PM10, by several factors, but it is most evident at airports and can travel up to 10 miles from source (10x times further than PM10) even in a light breeze. [**PM2.5 (carbon and sometimes metals) easily penetrates deep into the human body. PM 2.5 can reach*

the alveoli through the nose and airways during breathing and can infiltrate directly into the blood vessels and cause inflammation, throughout the body. In this process, the blood vessels are damaged, which increases the risk of developing angina and suffering a stroke. The particles can embed themselves deep inside the lungs and then enter the bloodstream. The inflammation they cause is known to quickly worsen many lung conditions, such as asthma and chronic obstructive pulmonary disease (COPD), and of directly contributing to the development of heart disease.]
'Citizen suits', as these impactful lawsuits are known, allow citizens to sue corporations and governments that deliberately or even accidentally pollute the air, land and water and to sue government agencies that refuse to enforce or implement environmental statutes and regulations.

Permission to build a cargo hub at Manston will be sufficient grounds for thousands of future Ramsgate and Thanet residents to bring such citizen suits against British Government and Thanet District Council, **for deliberately jeopardizing and endangering their lives and health**.

Following the previous decision being quashed, the Secretary of State now seeks the views of interested parties, on a wide variety of issues. One assumes, therefore, my response, as an interested party, will be read in the Minister's office. **I would greatly appreciate confirmation of this, please.**

The Minister will not, understandably, wish to be seen to 'get in the way' of commercially driven risk takers, or competition. No doubt, the incumbent Minister will also wish to reinforce his abiding interest in aviation and be seen as a reliable ally of the industry.

However, the Manston application is **uniquely different** from the other privately pursued aviation DCOs applications, which stand in line behind it, in that the applicant, River Oak Strategic Partners Ltd (RSP), is an offshore company with unproven financial status and no experience in aviation, less several airport failures 'racked up' by one of its disgraced directors ! In other words this application **already stands out as being 'distinctly dodgy' !**

Moreover, one assumes the Minister will not wish to risk repeating the debacle of his predecessor the Rt Hon Chris Gayling MP, whose attempt to bestow a contract on Seaborne Freight, a company which had no ships, no shipping experience and no accredited financial status, will be remembered for many years to come and define that particular Minister's legacy for time immemorial.

So why is Manston so fraught with reputational risk? Seven very good reasons:

1. A recommendation in favour of the DCO will undoubtedly lead to a judicial review, which the Minister could lose, if his decision is found to be unjustified in the face of such overwhelming factual evidence against a largely fictional application. Such a review will present the Government with much adverse publicity, especially against a backcloth of clammering public support for climate control. The recent Government decision to support Flybe Aviation refers.

2. This DCO application has been submitted **purely** to overcome local

opposition, local difficulties, such as noise and air pollution, and to circumvent local government legal advice, which has been consistently against. As such, the application is at odds with this Government's abiding principle, as enacted by the Localism Act 2011, for such decisions to be taken locally, by locally elected representatives.

3. Manston is an unsustainable airport in every regard. As such, it will waste the Government's scarce national carbon budget, which could be used to greater effect elsewhere.

4. A DCO decision in favour of Manston will attract the unwanted attention of several national campaign organisations, such as the Aviation Environmental Federation, whose main focus is the non-sustainability of airports. As a member of AEF, I am assured they will shine their light into in the three areas they have already written subject position papers on; **noise, air pollution and climate control**. Notably, Client Earth was given permission by the high court to sue a Minister for overturning evidence based advice on pollution, and environmental lawyers have previously inflicted three such defeats on ministers over their failure to tackle air pollution.

5. Moving goods by air freighters is proven to be the most 'carbon inefficient' way of all, to move freight. Manston can **only** succeed as an airport if it manages to 'rob' trade from other more carbon efficient air movers (ie. belly hold). Does the Minister really want to be held responsible for creating **more** carbon per kilogram of freight moved ?

6. Successful freight movement is dependent on night flying, mainly to meet the growing demand for 'next day delivery'. East Midlands airport has no such restrictions and therefore remains the best option for freight movement by air. Manston will always face opposition to night flying from Thanet residents, and indeed, local opposition has only been muted, in recent years, by erroneous statements made by prominent public figures, designed to mislead and deceive them on this critical subject. The perceived lack of public outcry will change very quickly, **when the truth will out**.

7. The alternative 'mixed use' for Manston, as put forward by the previous owners, retained an airstrip for recreational and heritage flights, thereby supporting many of the aviation skills that the Minister is so interested in keeping for the nation's prosperity. A small airport, retained for light aircraft, would be very much more in keeping with the area's history, culture, indigenous skills **and** the Minister's renowned interest in General Aviation, than a busy 24/7 'industrial scale' freight hub for the predominantly robotic operation of dirty, super jumbo freighters and 'tear down' facilities. Moreover, if the Minister takes the only sensible decision to deny this DCO application, the alternative light aircraft airport at Manston would enjoy universal support, locally. The general aviation skills, thereby retained, would play an important role in Thanet's real economic recovery to be built on its natural beauty, tourism, recreation and high tech jobs. Moreover, more general aviation expertise such as this, would have a much greater chance of

survival, well into the future, than would a thrice failed environmentally damaging commercial airport.

So, it is clear that on this occasion, by supporting this DCO application, the Minister would quickly invite very bad publicity, promote the advent of yet another failure in aviation and fail to protect the long term interests of the very aviation assets he has spent considerable personal time and effort to sustain.

Why do that ? Why risk destroying his reputation, when there are much better opportunities and more viable aviation options for him to support ?

I look forward to receiving acknowledgement and confirmation this submission will be read in the Minister's office. Thank you.

Yours sincerely,

Grahame Birchall

Resident of Ramsgate.

MANSTON CARGO HUB

ILLEGAL AIR POLLUTION

Introduction

In a far-reaching human rights case, Ella Kissi-Debrah, the 9 year old girl who lived in Catford, dangerously close to the South Circular, a notorious pollution hotspot, could become the first person to have toxic air given as their cause of death, which would finally make this silent killer visible.

According to one of the UK's leading experts on asthma and air pollution, Prof Stephen Holgate, there was a "striking association" between Ella's emergency hospital admissions and recorded spikes in nitrogen dioxide (NO2) and PM10s, the most noxious pollutants.

His report said there was a "real prospect that without unlawful levels of air pollution, Ella would not have died". She had experienced three years of seizures and hospital stays before her death in February 2013. During that time, local air pollution levels breached EU legal limits.

No individual death has previously been directly linked to air pollution. Such is the growing body of evidence about air pollution, the link to individual deaths, followed closely by litigious claims, Governments, national and local will need to show beyond all shadow of doubt they are doing everything possible to meet legal levels of air pollution in the area of their jurisdictions, or face serious consequences.

What then would a Government say, in its defence, if, as in the case of Manston, it had actually gone out of its way, to create an air ‘pollution death trap’ for thousands of innocent residents in the nearby town of Ramsgate, when it had the choice, not so to do ?

Key Questions

In attempting to provide a satisfactory answer to this question, it behoves the Planning Inspection Team to examine and provide answers to the following three corollary questions.

First, is it likely the planned cargo hub at Manston will create illegal levels of air pollution ?

Second, is how far is it likely that those illegal levels of air pollution will travel ?

Lastly, will the air pollution produced pose significant risk of premature death and/or ill health to the people living within the airport's 'radius of harm' ?

Aim

The aim of this paper is to assist the Examining Board with answering those questions, by means of pointing to a number of researched studies. It is not supposed to be an exhausted or an 'in depth' study in itself.

It is assumed that in a matter of such gravity, the Board would itself, endeavour to satisfy itself in performing its duty of care to the people and communities affected by their decision.

General Observation on Global Effects

Air freight often uses older, more polluting and noisier planes, and much is transported at night. The aviation industry hopes that the freighter fleet will continue to grow, and air cargo will grow as larger planes are built.

However, air freight has far higher negative environmental impacts, including greenhouse gas emissions, than other modes of transport. Air freight produces immensely more CO2 equivalent emissions per tonne kilometer than transport by rail or by sea. There is a DEFRA /DECC report entitled:

"2011 Guidelines to DEFRA / DECC's Green House Gas (GHG) Conversion Factors for Company Reporting"

which gives the conversion factors used to estimate carbon emissions from various forms of transport, including air freight. There is a greater difficulty in calculating the carbon emissions caused by air cargo carried as belly freight, in passenger planes. The document goes into this in some detail.

However, emissions from dedicated air freighters, (which are more relevant to Manston), are simpler to calculate and by comparison to train and ship, air freighters are already a lot worse in creating GHGs.

For example: 2 tonnes of freight carried 1,000 km produces:

4,532 kg CO2-e - By Air

10 kg CO2-e - By train

30 kg CO2-e - By cargo ship.

As can be seen, air freighters are 'arch offenders' in the battle against global warming. Hence the starting point for assessing the negative effects of air freighters is not a good one, by comparison to other transport modes, when climate change is taken into account.

Turning now to the first question of how likely the planned cargo hub at Manston will create illegal levels of air pollution.

Existence of Air Pollution from Commercial Aviation

Airplanes and their attendant vehicles and equipment produce a cocktail of harmful gases and particulates. These include:

NO2 (Nitrogen dioxide) which is harmful to humans. According to a UK Government study in 2015 "Studies of long-term exposure to NO2 report associations with all-cause, respiratory and cardiovascular mortality, children's respiratory symptoms and lung function".

NOx is a generic term for NO and NO2. NO is relatively unstable and will convert to NO2 if exposed to oxygen.

Particulates are harmful to humans. Particulates are tiny particles. Sometimes they are carbon, but they can be tiny particles of metal. Particles are often put into three sizes:

PM10 – these are particles up to 10 micrometres (10 millionths of a metre) in diameter. These are often called 'course particles'.

PM2.5 – these are particles up to 2.5 micrometres in diameter and are often called 'fine particles'. Diesel engines emit a significant amount of PM2.5s

Ultra-Fine Particles (UFP) do not have a specific legal definition, but scientists consider these to have a diameter of up to 0.1 micrometres or 100 nanometres. They do however come within the legal definition of PM2.5s since they will pass through a PM2.5 inlet or filter. Ultra-Fine Particles are particularly harmful as when emitted there are so many of them and they have a large total area. They are known to get into the blood stream and in recent research by Queen Mary's University Hospital have been found in the placentas of pregnant women.

According to the EU's first aviation environment report in 2016, Air pollution from planes in Europe is to rise by nearly half in the next two decades.

Aircraft emissions of nitrogen oxides (NOx), which are linked to lung damage, doubled since 1990 and are forecast to rise 43% by 2035.

NOx is an indirect greenhouse gas created by fuel combustion, that can lead to the formation of health-damaging air pollutants such as particulate matter (PM).

High NOx concentrations around airports are a particular public health concern, with Heathrow airport breaching safety limits in several different locations and times in 2012, according to its own measurements.

The UK government has been in breach of EU air quality laws since 2010, but the UK's cleanup plan published did not envisage cities such as London becoming compliant until 2025 at the earliest.

Consequently, Environmental lawyers ClientEarth have been granted permission to take the UK government back to court over its failure to tackle illegal levels of air pollution. A judge at the High Court has granted our request to pursue a Judicial Review against DEFRA.

Aircraft jet engines, like many other mobile sources, produce carbon dioxide (CO2), nitrogen oxides (NOx), carbon monoxide (CO), oxides of sulfur (SOx), unburned or partially combusted hydrocarbons (also known

as volatile organic compounds, or VOCs), particulates, and other trace compounds (Federal Aviation Administration 2005).

Each of these pollutants is emitted at different rates during various phases of operation, such as idling, taxing, takeoff, climbing, and landing. For example, NOx emissions are higher during high power operations like takeoff when combustor temperatures are high. On the other hand, CO emissions are higher during low power operations like taxiing when combustor temperatures are low and the engine is less efficient (Federal Aviation Administration 2005).

Even though the aircraft engine is often idling during taxi-out, the per minute CO and NOx emissions factors are higher than at any other stage of a flight (Environmental Protection Agency 1992). Combining this with the long duration of taxi-out times during peak periods of the day, total taxiing over the course of a day can add up to a substantial amount.

Consistent with these facts, Los Angeles International airport is estimated to be the largest point source of CO emissions in the state of California and the second largest of NOx. (Environmental Protection Agency 2005).

However, aircraft and airport emissions have only recently become the subject of regulatory scrutiny, although little has been done to reduce or manage emissions generated by airports and air travel. While there has been some effort to curtail the substantial CO2 emissions generated by aircraft, there has been relatively little effort to control or contain some of the more pernicious air pollutants generated by jet engines.

Moreover, in support of its plans for a third runway at Heathrow, the DfT and Heathrow owners have been accused by the Teddington Action Group (TAG) of attempting to diminish the effects of pollution by claiming emissions from planes do not contribute notably to emissions once the plane is above 1,000ft. The DfT and its advisors also set a study area of just 2 kilometres from the expanded airport boundary.

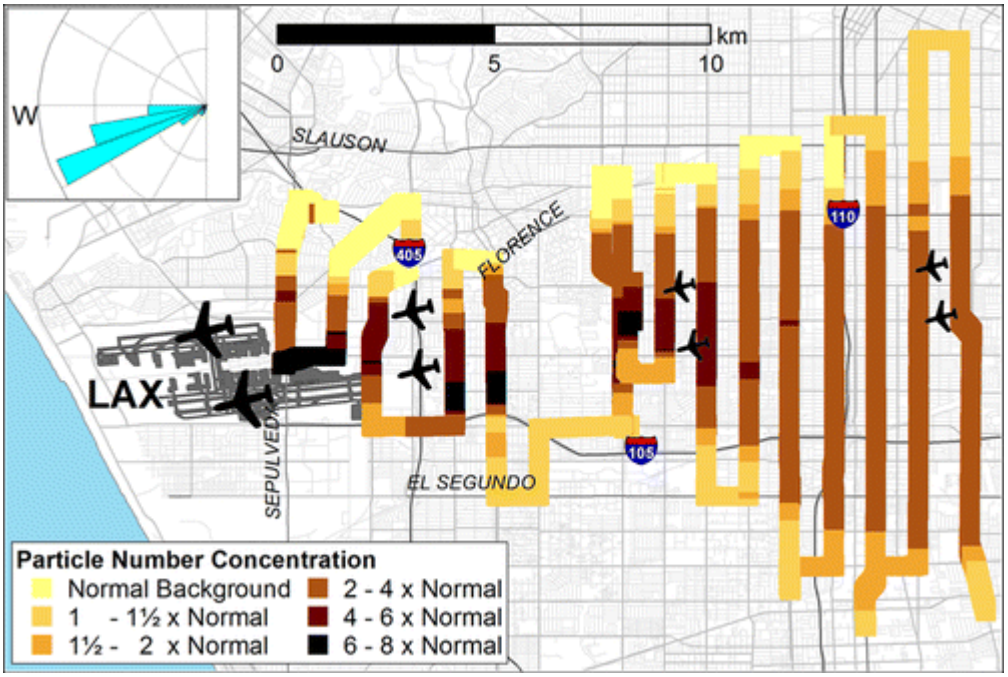
There is much evidence to indicate that is wrong. Planes emit significant amounts of NO2 and particulates, which find their way down to the ground (and by definition into humans and living creatures as well as vegetation). The DfT deny this but the empirical evidence does not support the

DfT. Studies between 2014 and 2016 at Los Angeles, Atlanta and Schiphol, Amsterdam, strongly suggest otherwise. Mobile monitors set up under the inward flight paths show that particulates and NO2 are transmitted by the wind up to some 20 kilometres down wind. Details have been extensively published by the Aviation Environmental Federation (AEF).

The spread of Air Pollution from Airports

One of the most relevant studies on the extent of travel of air pollution was conducted by the researchers at the University of Southern California (USC) and the University of Washington in Seattle who spent 29 days measuring levels of air pollutants while driving through neighbourhoods up to 10 miles from Los Angeles International Airport (LAX).

Most of the measurements were collected between 11 a.m. and 4 p.m., some of the airport's busiest hours, when 40 to 60 jets arrive per hour. But samples were also collected early in the morning and late at night, when air traffic was much lower. The scientists found that over a 23-square-mile area, an area that starts at the ends of LAX's four runways and then fans out east for more than 10 miles downwind of the airport. The particle-matter concentrations were double what they were in nearby areas outside the area of LAX impact. They also found that the concentrations were five times higher over a 9-square-mile section of the impact area, and within an almost 2-mile area just east of the airport, the particle-matter pollutants reached concentrations that were 10 times higher than in the non-impact areas. The study was funded by the National Institute of Environmental Health Sciences. The study's abstract can be found on the Environmental Science & Technology website. "*The consistent and distinctive spatial pattern of elevated concentrations was aligned to prevailing westerly winds and landing jet trajectories, and roughly followed the shape of the contours of noise from landing jets*," the study's authors note, "*indicating that **landing jets** probably are an important contributor to the large downwind spatial extent of elevation [particle matter] concentrations*." I remind the Board, that Ramsgate will experience a high percentage of landing jets. The results were visually displayed on a scaled map below.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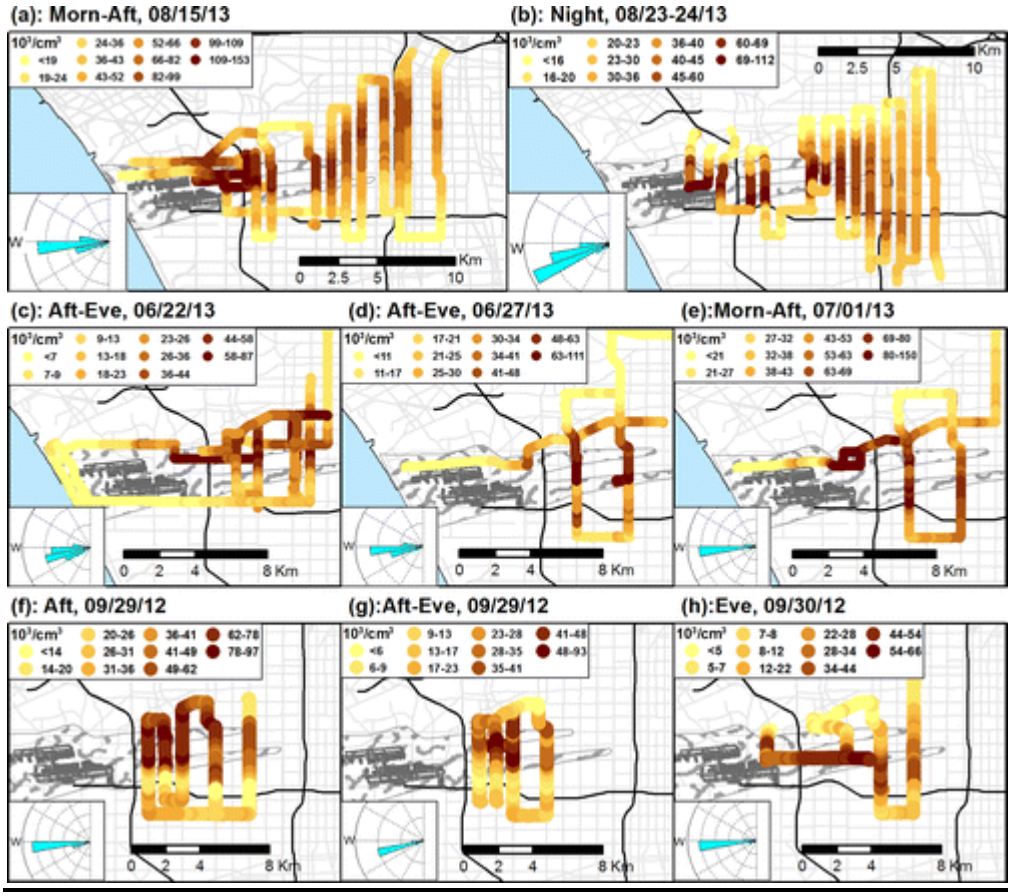
(a): Morn-Aft, 08/15/13
(b): Night, 08/23-24/13
(c): Aft-Eve, 06/22/13
(d): Aft-Eve, 06/27/13
(e):Morn-Aft, 07/01/13
(f): Aft, 09/29/12
(g):Aft-Eve, 09/29/12
(h):Eve, 09/30/12
Km
8 Km

It should also be noted that the Royal Harbour in Ramsgate is less than 4 km from the end of the runway at Manston, and from this survey, the whole town would be experience 4-8 times the normal levels of pollution from particulate matter in the air.

This is completely different to the information I was told by at the RSP consultation, where I was shown a map where apparently, PM pollution would be confined to an area outlined by the perimeter fence !

The Los Angeles evidence is supported by a second major research study, 'Airports, Air Pollution, and Contemporaneous Health' conducted by Wolfram Schlenker and W. Reed Walker, published in July 2015, which investigated air pollution and the link with respiratory and heart-related issues in the areas surrounding the 12 largest airports in California.

This study used a number of sources to obtain data for analysis for the period 2005-07. Airport traffic data was found in the Bureau of Transportation Statistics (BTS) Airline On-Time Performance Database, which contains flight information for passenger aircraft, such as departure and arrival times, and airports.

The measure of air traffic for 12 major airports in California consisted of:

- the time aeroplanes spend between leaving the gateway and taking off from the runway
- the time between landing and reaching the gate

Data for pollution around the airports was collected from the California Air Resource Board (CARB), which includes hourly and daily pollution readings.

The weather effects on health were controlled in the analysis by using temperature, precipitation and wind data in distributing airport pollution from airports. Wind data was obtained from the National Climatic Data by the National Oceanic and Atmospheric Administration's (NOAA) hourly weather stations.

Health effects were measured using the California Emergency Department and Ambulatory Surgery data for emergency room visits, and inpatient discharge data for overnight hospital admissions. Daily admissions of all people with a diagnosis associated with respiratory illnesses were included.

Statistical modelling was performed to estimate a number of links, including:

- pollution levels and hospitalisation
- increased levels of airport traffic
- congestion and local measures of pollution
- health and air pollution

The study found a large proportion of local air pollution is caused by congestion from airports, **and the average area of impact is a 10km radius.**

In terms of the link with health outcomes, admissions for respiratory problems and heart disease were strongly related to these pollution changes. A one standard deviation increase in area-specific pollution levels, increased asthma counts by 17% of the baseline average.

It also showed increased admissions for respiratory problems, such as chronic obstructive pulmonary disease (COPD), by 17% and heart problems by 9%. **Changes in pollution levels had a negative impact on the whole population, but greater effects were seen in children and the elderly.**

Health effects were measured by overnight hospital admission and emergency room visits to any hospital in the state of California. The California Emergency Department & Ambulatory Surgery data set for the years 2005-2007 was used.

The dataset gives the exact admission date, the zip code of the patient's residence (as well as the hospital), the age of the patient, as well as the primary and up to 24 secondary diagnosis codes. An important limitation of the Emergency Department data is that any person who visits an ER and is subsequently admitted to an 'overnight stay' drops out of the dataset. This is done to prevent double counting in California's hospital admissions records, as overnight hospital stays are logged in California's Inpatient Discharge data.

Finally, they included three placebos: stroke, bone fractures, and appendicitis. In their baseline model, they counted a patient as suffering from a sickness, if either the primary or one of the secondary diagnosis codes, lists the illness in question.

These estimates suggest that relatively small amounts of ambient air pollution can have substantial effects on the incidence of local respiratory illness within a 10km radius of the source of polluton.

Does air pollution from commercial aviation pose significant risk of premature death and/or ill health ?

The Danish booklet, 'Air Pollution in Airports', published at Blegdamsvej 4B 2200 in Copenhagen, states that the main concern is related to ultrafine exhaust particles from aircrafts and diesel engines. Ultrafine diesel particles are known to cause cancer, heart disease, blood clots, brain haemorrhage and airway diseases (bronchitis, COPD),thereby increasing the risk of serious work related illness and premature death.

During recent years, several American studies have documented high concentrations of ultrafine particles in exhaust gas from aircrafts. However, very few airports monitor ultrafine particles.

This booklet presents a new exhaustive study from Danish airports focusing on air pollution in airports, pollution sources, employee exposure to ultrafine particles and

actions to limit the pollution. The booklet is thereby state of the art regarding air pollution in airports.

For decades the key focus has been on particulate mass, predominantly coarse and fine particles.

The main reason for this is that these larger particles have been easy to measure and because there is a connection between particulate mass and health effects. However, several newer investigations report that ultrafine particles (PM0.1) measured in numbers seem to be a better indicator of harmful air pollution from local exhaust. This is explained by the fact that ultrafine particles have a large surface area available for sorption of toxic compounds (PAHs, VOCs etc.),and that they have a high deposition rate in the finest and most critical parts of the lungs (the alveolar).

A part of the deposited ultrafine particles containing the toxic compounds will be transferred from the alveolar directly to the blood and be transported around the body. Furthermore, newer investigations find that nanoparticles might be assimilated directly through the nasal mucous membrane and reach the brain.

Finally, the chemical composition of the ultrafine particles is believed to be crucial for their toxic properties as well. Particles with a high content of soot (black carbon) are believed to be the most dangerous particles, while inorganic sulphate particles are believed to be the least harmful.

Moreover in 2013, the World Health Organisation published details of the effects of particulate matter on human health.

It says that Particulate Matter of less than 10 microns (PM10) and Particulate Matter of less than 2.5 microns (PM2.5) include inhalable particles that are small enough to penetrate the thoracic region of the respiratory system. The health effects of inhalable PM are well documented. They are due to exposure over both the short term (hours, days) and long term (months, years) and include:

- respiratory and cardiovascular morbidity, such as aggravation of asthma, respiratory symptoms and an increase in hospital admissions;
- mortality from cardiovascular and respiratory diseases and from lung cancer.

There is good evidence of the effects of short-term exposure to PM10 on respiratory health, but for mortality, and especially as a consequence of long-term exposure, **PM2.5 is a stronger risk factor** than the coarse part of PM10. [An American Cancer Society cohort study of 1.2 million American adults for 26 years (from 1982-2008) showed that with a PM 2.5 increase of 10 μg/m 3 per day, lung cancer mortality increased by 15-27%.]

Susceptible groups with pre-existing lung or heart disease, as well as elderly people and children, are particularly vulnerable. For example, exposure to PM affects lung development in children, including reversible deficits in lung function as well as chronically reduced lung growth rate and a deficit in long-term lung function.

[A Paediatric Research panel study published in May 2018, outlines association of ambient PM 2.5 directly with school absence and symptoms in schoolchildren. The study included 20,291 observations in 615 schoolchildren, 8-13 years of age.]

The conclusions of the 2013 WHO report include:

- There is no evidence of a safe level of exposure or a threshold below which no adverse health effects occur.

- PM 2.5 is more dangerous than PM 10 because it easily penetrates deep into the human body. PM 2.5 can reach the alveoli through the nose and airways during breathing and can infiltrate the blood vessels and cause inflammation [10,11]. In this process, the blood vessels are damaged, which increases the risk of developing angina and suffering a stroke. The particles can embed themselves deep inside the lungs and then enter the bloodstream. The inflammation they cause is suspected of worsening many lung conditions, such as asthma and chronic obstructive pulmonary disease (COPD), and of contributing to the development of heart disease.

- Exposure to air pollution results in approximately 16% of lung cancer deaths, 11% of chronic obstructive pulmonary disease (COPD) deaths, and 13% of respiratory infection deaths.

<u>Summary</u>

The aviation industry has been slow and reluctant to measure accurately the incidence of air pollution at and around airports. No doubt this will change as air pollution becomes an urgent health concern to the whole nation.

A growing body of evidence points towards a historic underestimation of both the existence of the most harmful component of the pollution (PM2.5) from aviation, its persistence and ability to travel long distances, and its potentially devastating effects on health and shortening life spans, particularly in the most vulnerable ie. the elderly and children.

Child health experts have said families and parents are worryingly unaware of the severe damage air pollution is doing to young people in the UK. The executive director of Unicef, which carried out the work with the Royal College of Paediatrics and Child Health, **said British children were "in the grip of a public health emergency."**

PM2.5 which is created in abundance by planes and airport equipment, is now being linked, empirically and medically, with just about every type of serious human illness and long term health syndrome, from heart attacks, stroke, damaged immunity and multiple sclerosis to COPD and cancer. Evidence exists to show that even small increases in PM2-5, above the norm, can have dramatic effects on health.

There is a plethora of studies and reports published on all these issues, far too many to research and list in this short paper. Believe it or not, I do have other paid work to be getting on with !

The applicant, RSP, has done everything in its power, to play down the existence of these harms, having been encouraged and strengthened in their application by politicians locally and in Westminster. They are at least correct, in assessing that this DCO could have serious political 'fall out' for everyone involved. Hence their transparent attempts to get 'top cover' for their dubiously motivated project.

So, the question this Board of Inspectors needs to answer, in the face of the growing body of scientific evidence and public awareness, is as follows.

Can they deliberately consign hundreds and possibly thousands of Ramsgate residents, old and young, (and to a lesser, but no less significant extent, the residents of Herne Bay), to living and working with levels of air pollution, which, in all probability, will, in time, be proven to be illegal, **where currently no such harm exists ?**

I look forward to seeing their decision and recommendations to Government.