

From: [REDACTED]
To: [Manston Airport](#)
Subject: Evidence of threat to health from particulates
Date: 10 June 2019 12:04:09
Attachments: [Aviation Environment Federation.pdf](#)
[In the conclusion to the DEFRA report.pdf](#)
[Swiss Researchers Say Aircraft Engines.pdf](#)

Good Day Sir's I run the group OAPs against 24/7 freight hub, as you will soon be deciding the fate of us resident in Ramsgate I would like to point out what damage a large number of aircraft flights over our lovely town will do to residents health. There is now clear evidence that particulates from aircraft burning a gallon of fuel per second on take off have a disastrous effect on those residents young and old who have the misfortune to find themselves under a busy flight path. There is no cure or protection for those who fall sick from this type of air pollution, the only solution is to keep concentration of flights away from heavily populated areas like our town, I do hope you bare this in mind when coming to your final decision. I enclose PDFs with some information on this emerging threat to all mankind.

Ronald Blay

Sent from [Mail](#) for Windows 10

Aviation Environment Federation » Air pollution concerns at smaller ...

<https://www.aef.org.uk/2019/02/21/air-pollution-concerns-at-smaller-airports/>

21 Feb 2019 - Poor air quality at *UK* airports is a serious concern for many local residents. ... As a *result*, little attention is given in government policy to ways to minimise ... sulphur content in *aviation* kerosene fuel produces tiny *particles* (*particulate* matter or ... London (Hansell et al, 2013) looked into possible *health impacts* of pollution on ...

In the conclusion to the DEFRA report, it is said:

“Research from mainland Europe and North America indicates that aviation emissions can have an appreciable impact upon particle number concentrations within tens of kilometres of major airports.”

The Hudda Report also found that “Over large areas downwind of LAX [Los Angeles Airport], concentrations of pollutants other than PN were also elevated. Figure 5(a)–(c) show nearly indistinguishable spatial patterns for PN [particulates], BC [black carbon], and NO₂ concentration measured simultaneously at distances of 9.5–12 km from LAX. This suggests a common source for these pollutants, although the BC concentration increases were not large when compared to PN and NO_x, about 0.5–1 µg/m³ at 8–10 km downwind.”

According to the Local London Air Quality Monitoring, NO₂ in 2013, updated in 2016, exceeded a concentration of 43 µg/m³ and PM_{2.5}s exceeded 15 µg/m³. NO₂ should have been below 40 µg/m³. PM_{2.5}s are required to be reduced over time.

The effect of exposure to particulate matter and NO₂ should not be underestimated. The Royal College of Physicians in its report of February 2016 stated that:

“Air pollution, to which we are all exposed to a lesser or greater extent, has a significant public health burden. In 2010, the Department of Health’s Committee on the Medical Effects of Air Pollutants (COMEAP) reported that long-term exposure to outdoor air pollution caused the equivalent of approximately 29,000 deaths in 2008 in the UK. Current work by the committee suggests that the effect might be even greater.”

And

“1. PM (particulate matter) has significant effects on health

2. the mortality effects of long-term exposure to PM should be quantified without threshold and without distinguishing between different types of particle

3. these mortality impacts should be quantified using a response function in the order of a 6% change in impact per 10 µg/m³ PM_{2.5}.”

And

“Table 1. COMEAP [Committee on the Medical Effects of Air Pollutants, advising the Government on all matters concerning the health effects of air pollutants study of 2010] results for effects of outdoor PM_{2.5} exposure on mortality for the UK

Measure of mortality Impact	
Number of attributable deaths	28,861
Attributable deaths per 100,000 aged over 30 years	75
Burden on total survival (life-years lost)	340,000
Difference in life expectancy for the 2008 cohort (days)	
Females	194
Males	182”

And

“When quantifying the total impact associated with exposure to both NO₂ and PM_{2.5}, it is therefore necessary to account for this overlap in the response functions. Defra estimates that the annual equivalent number of attributable deaths associated with the two pollutants combined is 44,750–52,500, with an associated annual social cost of £25.3 billion – £29.7 billion. However, a subsequent paper issued by COMEAP in December 2015 indicates that the level of overlap in estimates between pollutants may be greater than originally thought”

Research carried out by Queen Mary’s University has found PMs in the placentas of expectant mothers through getting into the blood stream – something that is acknowledged by DEFRA in the Ultra Fine Particles report. The Queen Mary’s University press release on its website states that:

Dr Liu added: “Our results provide the first evidence that inhaled pollution particles can move from the lungs into the circulation and then to the placenta. We do not know whether the particles we found could also move across into the foetus, but our evidence suggests that this is indeed possible. We also know that the particles do not need to get into the baby’s body to have an adverse effect, because if they have an effect on the placenta, this will have a direct impact on the foetus.”

Professor Mina Gaga, President of the European Respiratory Society who was not involved in the study, said:

“This new research suggests a possible mechanism of how babies are affected by pollution while being theoretically protected in the womb. This should raise awareness amongst clinicians and the public regarding the harmful effects of air pollution in pregnant women. We need stricter policies for cleaner air to reduce the impact of pollution on health worldwide because we are already seeing a new population of young adults with health issues.”

DEFRA in their Ultrafine Particles report state that:

“For example, a location such as Heathrow Airport, where aircraft tend to approach the airport from the east (flying over the London conurbation), there is potential for considerable exposure to UFP from aircraft”

Yet the Secretary of State and the Department for Transport and Heathrow stick resolutely to the 2 kilometre limit, and not carrying out their own empirical research. The DfT were re-tweeting that aircraft do not cause harmful emissions only two weeks ago. Citizens are entitled to know the consequences of these actions, which expose vulnerable people to serious harm and even death. Public Health England recorded that the fraction of mortality in London due to particulates rose from 6.4% to 6.5% from 2016 to 2017 and from 5.6% to 6.4% from 2015 to 2016.

Abstracts of the various reports can be found and full copies can be purchased at:

- Hudda et al 2014 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4215878/>
- Keuken et al 2014 <https://www.sciencedirect.com/science/article/pii/S1352231015000175?via%3Dihub>
- Riley et al 2016 <https://www.sciencedirect.com/science/article/pii/S135223101630348X>
- DEFRA report on Ultra Fine Particles https://uk-air.defra.gov.uk/library/reports.php?report_id=968
- There is a further more recent report in September 2018 by Rima Habre et al on Los Angeles Airport at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6368339/> with a pdf of the full report at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6368339/pdf/nihms-1007090.pdf>

Swiss Researchers Say Aircraft Engines' Exhaust Is Harmful To ...

<https://www.disclose.tv> › *Science*

20 May 2019 - The World *Health* Organization (WHO), estimate that around seven million people ... For all to long pollution research and the *effect* it has on the human lungs has been ... *Results*. In general, the *particles* that *aircraft* turbine engines emit are ultrafine, There is a case in the *UK* going right now, the cause of death was air ...