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21st November 2014

Dear Sir Howard Davies

I am writing to you in response to your request for input to the public consultation on airport expansion.

Heathrow Airport claim on their website url http://www.heathrowairport.com/about-us/community-and-environment/responsible-heathrow/reducing-environmental-impacts/local-air-pollution that they have set a target of at least 5% reduction in ground- based NOx emissions from the airport (2008/9) by 2020.

I quote from their online document (URL above), their claims and my response to these claims

Performance: Ground based NOx emissions includes emissions from aircraft on the ground, airport related road traffic and vehicles operating airside. A full emissions inventory for 2013 is currently underway and expected to be complete in December 2014, at which time we will be able to report changes in emissions since the last inventory for 2008/9

At this point there is no evidence of any actions being taken.

They follow this with a number of commitments detailed below:

1. 90% Air Quality Strategy actions on-track or complete annually
Performance: 86% actions were on track or complete in 2012. An independent verifier is assessing 2013 performance.

2. Work with partners to reduce emissions to help to meet EU Limit Values at local air quality monitoring stations (within 2km of the airport) annually

Performance: 8 out of 9 local monitoring stations reported within EU limits in 2013.

3. Greater than 85% compliance with Auxiliary Power Unit (APU) running time allowances by 2020.

Performance: Compliance has improved between 2012 (78.64%) and 2013 (84.15%).

4. Increase proportion of cleanest aircraft by international standards (CAEP/6 equivalent or better) to 55% by 2020

Performance: Proportion of CAEP/6 aircraft is increasing year on year, from 44.8% in 2012 to 46.18% in 2013

5. Reduce proportion of pre-CAEP aircraft to 0% by 2020

Performance: 8.7% of aircraft were Pre-CAEP standard in 2012 and 2013

6. At least 75% of flights from Heathrow are operated by airlines which have adopted the Sustainable Aviation Departures Code of Practice by 2020

Performance: In 2013, 50% flights were operated by airlines that have adopted the Code

2Analysing these commitments together with performance and results look to be a case of Heathrow carrying out the minimum required to enable them to meet the minimum requirements with minimal cost.

If we look at item 1 where 90% of Air Quality actions should have been on-track, only 86% have been carried out. There is no indication of what this has achieved, if anything in reducing pollution..

Item 2 looks as if there should have been 9 monitors active, but only 8 have been in operation during 2013. The figures here are totally meaningless. Without having all monitors in place and working the results from the other 8 serve no purpose. These may well be in positions of low pollution compared to the 9th monitoring station. There is nothing in this particular statement that can scientifically be used to show accurate results.

Item 3 If the allowances of running time for APUs is not being met, this can only be described as a failure. HAL appear to have a target of 85% compliance with the regulations. If this figure is not set in the regulation, then the target they are aiming for is a failure in meeting this requirement. I have to assume that this requirement was put into place by the authorities for a very good reason.

Item 4. Increase of percentage of aircraft meeting the legal limits on pollution is an admirable target. However, HAL's figure of 55% of aircraft meeting the target set by CAEP/6 in 2020 really is a failure. It means that the majority of aircraft will not be at the latest specification i.e. CAEP/8 set by the International Civil Aviation Organisation (ICAO) in Montreal 2010. Considering the proposed increase in aircraft planned by HAL, the future health of local residents would be put in jeopardy.

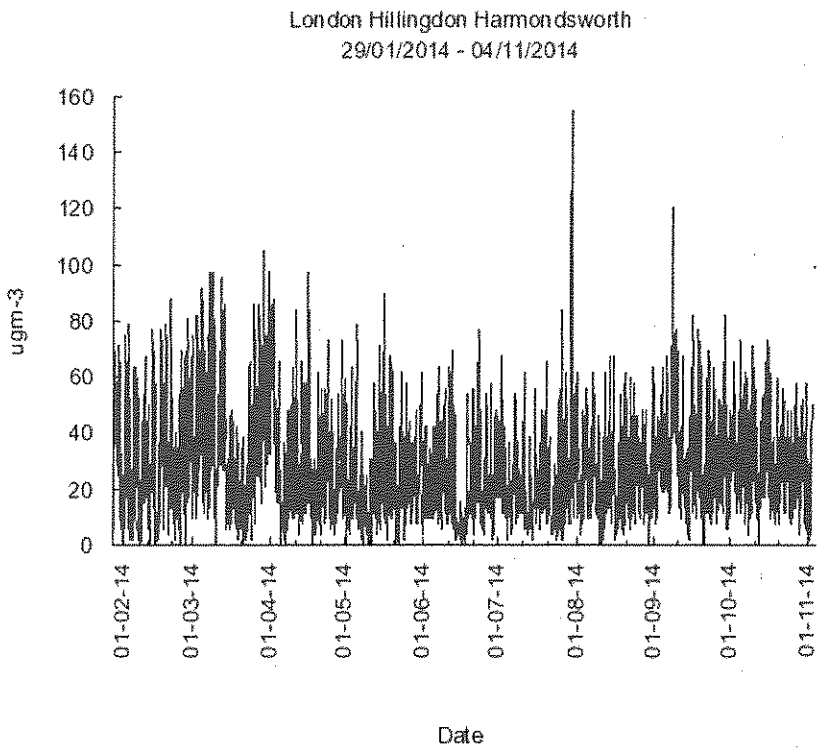
Item 5. Reduction of pre CAEP aircraft should not be difficult, as CAEP was first set up in 1983 as part of ICAO.

Item 6. Whilst the results from HAL in the use of Sustainable Aviation Departures Code of Practice look promising, it is also being implemented by Gatwick, Stansted and the Manchester group. The figure of 75% however, is misleading as it represents the percentage of Airlines that have adopted the policy. This does not represent 75% of all flights from any particular airport, including Heathrow.

In a presentation recently made by HAL as part of its consultation period, I queried a comment made in the presentation that by having a 3rd runway at Heathrow would reduce the amount of NO_2 in the air. I queried this point as I suggested that by keeping the runways at 2 and not 3 would be lower than having 3 runways. I was then informed that the pollution would be less as our passengers would not have to fly from Heathrow to, for example Qatar and then board another flight from Qatar to my destination. Heathrow felt that the aircraft at Qatar would not be needed if the UK flew direct to the destination and not via Qatar. This argument is clearly saying that by having a Hub, we are increasing the amount of pollution in the air as not only would the original flight from Qatar to the original destination as well as flights from Heathrow to Qatar. This showed that HAL want a runway at any cost without any consideration to either local residents at Heathrow

Pollution, especially Nitrogen Dioxide (NO_2) is a major cause of illness and premature death in the United Kingdom. The safety levels are quoted as an annual average level and peak levels. The annual average should not exceed 40 $\mu g\ m^{-3}$. From this graph you can see the that this level is constantly being exceeded. This is a major cause of heart problems and early death in the south of the Borough of Hillingdon. With newer planes without the increase in numbers, this figure can be reduced. However, by increasing the number of flights at Heathrow either with or without a new runway, the mortality rate will increase. The figures I have used, together with the graph below came from a study by Kings College, London.

The URL is http://www.londonair.org.uk/london/reports/2012_LAQN_Summary_Report.pdf.



The Community of Harmondsworth.

Harmondsworth has a very close and buoyant community in spite of the problems with growth at Heathrow Airport. Since the 1940s the Parish of Harmondsworth has lost the following villages and hamlets to the growth of Heathrow:

- Heathrow Hamlet
- Perry Oaks Hamlet
- Kings Arbour

Further villages such as Longford and Sipson have had their communities destroyed by Heathrow Airport buying the properties from local residents due to the previous threat of a third runway. In addition to this 2,850 acres of land in Harmondsworth has been taken by Heathrow's expansion

since the early 1950s. This averages out at approximately 45 acres of land every year since Heathrow's inception. Other areas which have been damaged by Heathrow's growth include Harlington, Sipson, Stanwell, Stanwell Moor, Bedfornt, Colnbrook, Horton, Wraysbury, Hatton, Hounslow, Richmond, Chiswick, Ealing, Egham, Staines, Windsor and Wandsworth. In fact, there are just too many to include them all in this letter.

In spite of all of this upheaval and destruction, the villagers of Harmondsworth have kept up a strong community. We all stood together to defeat the last plan to expand Heathrow. In 2012 we celebrated the Queen's Jubilee with 250 people sitting down for an afternoon tea in the High Street, Following this a further 250 people joined in for the celebrations involving a number of local acts. performers

Also in 2012, local residents raised £19000 to have the Church Bells repaired by the Whitechapel Bell Foundry. Since the Bells have been restored, Harmondsworth now has its own Band to ring the Bells. In 2013, the villagers, along with some help from the London Borough of Hillingdon, celebrated the work carried out by Barnes Wallis during the development of the bouncing bomb. This was developed and initial testing took place in Harmondsworth using tanks scaled down to represent the Ruhr Dam in Germany. We were privileged to have a number of eminent people attend including Barnes Wallis' daughter and grandson. Despite David Cameron's "No ifs, No buts" speech we are back here again. In 2014, we held a WW1 commemoration in the village for the 95 men from Harmondsworth who laid down their lives fighting for the future of this country and to defend their village. We were fortunate to have the Lord Lieutenant and Lady Brewer attend as Guests of Honour representing Her Majesty Queen Elizabeth. We also had a number of MPs attend together with Local Councillors. The event was attended by just over 1000 people, mainly villagers. This event took 6 months of planning and preparation. I have included with this letter a DVD of the event. I would appreciate it if yourself and the other commissioners view the film and take note of the community spirit shown by the local residents and to the non political support given to the villagers from The Lord Lieutenant and Peter Clarke commentator. This film is part of our submission to your Commission providing evidence of the destructive effect of expansion at Heathrow, either by the North East Runway or the Heathrow Hub submission. We are now working on a project for 2015 at the reopening of The Great Barn after its refurbishment.

The Village of Harmondsworth has a population including lifetime and long-term residents(over 40 years), together with new people looking for a rural environment within the Greater London Area. On your short visit to Harmondsworth, you must have felt the rural environment in the village and although you were unable to visit the Norman Church, you must have been impressed with it. Heathrow's plan currently shows that the boundary of the proposed airport would run straight through the village. It has been moved slightly to reduce the number of listed buildings that would have to be demolished. However, that does not mean that they would still be usable. The Church, which dates back to 1067, would not be usable and most likely would suffer damage. The result would force the Diocese to close the Church as it would be too expensive to maintain. The Great Barn at Harmondsworth would not be able to survive with aircraft taking off and landing so close to it. The most likely option would be to move it to another location. However, with the Governments revised plan that English Heritage would need to become self-sufficient financially, it is doubtful that they would be able to afford to do this. Hence a jewel in our heritage would be lost for ever.

If the Heathrow expansion is allowed to to built, the community would be devastated. Long term friendships would be destroyed. Contrary to HAL's claims, a number of jobs will be lost. There are a large number of small businesses in the area, employing local people. A number of these companies will have to move. Heathrow boasts that it will produce a further 5000 apprenticeships. However, they fail to take into account that at least one school will be destroyed in Harmondsworth.

I would also assume that the Heathrow school in Sipson would not be viable due to pollution, unless Heathrow feels the Adobe outbuildings are the solution to polluted schools. The parents of most of these children will have to move house. The houses left in the area will be at a premium, so it is quite possible that they will not have sufficient funds to purchase a replacement property of similar stature for their family. This would result in an increase in unemployment amongst existing workers. Those who would benefit would be the workers living outside of the Heathrow expansion area. They would be able to take on a job if they so wished as they would already live close to the expanded airport. Those losing their homes would stand a risk of being unemployed and the possible breakup of their family. Heathrow's own figures for 2013 show that they trained 1007 people which led to 525 people being employed. And 150 gaining an apprenticeship. This shows that assuming all those on apprenticeships also got a full time jobs at the end of their apprenticeship, the success rate is only 67%, hence 332 people failed to get a job through Heathrow's scheme. This makes a mockery of Heathrow's claim of providing more employment.

Noise Levels

In the HAL document The Promise of Heathrow chapter 5 HAL claims that Heathrow is significantly quieter than it was in the 1970s. In a report dated 10th February 2012 by D P Rhodes for the CAA carried out comparisons in noise levels of the A380, A340, Boeing 747 and Boeing 777 under a number of conditions. The document gives the identities of the noise monitoring stations, aircraft used and the measurement taken. The two measurements used are SEL and Lmax. SEL is Sound Exposure Level generated at a specific point and accounts for the duration of sound as well as its level. Lmax measures the maximum sound level measured during an aircraft fly-by. In these examples I will use the lowest figure for each aircraft and the nearest monitor point to the take off and landing.

SEL Noise

Aircraft	Monitoring point	Takeoff/landing	dba
A380	Poyle	Takeoff	93.2
747	Poyle	Takeoff	97.6
A340	Poyle	Takeoff	94.1
777	Poyle	Takeoff	91.8
A380	Poyle	Landing	92.3
747	Poyle	Landing	96.6
A340	Poyle	Landing	93.0
777	Poyle	Landing	93.2

Lmax

A380	Poyle	Takeoff	85.0
747	Poyle	Takeoff	88.9

A340	Poyle	Takeoff	84.8
777	Poyle	Takeoff	82.9
A380	Poyle	Landing	92.3
747	Poyle	Landing	96.6
A340	Poyle	Landing	93.4
777	Poyle	Landing	93.4

From these figures, I can not see how Heathrow can claim that the aircraft noise will reduce. We are comparing here the latest planes against those from the 1970s and there is little evidence to show noise reduction. With an increase in the number of flights, the noise level can only go up.

In the Heathrow document entitled "The Promise of Heathrow" they list the five steps to a quieter Heathrow. The chart above shows that the first point, Quieter Planes, is not guaranteed. Whilst I accept that Heathrow are attempting to reduce the noise levels, the A380 shows a small reduction in noise levels against planes in use from the 1970s. However, the decrease in noise is small and there is no evidence to show that, using the A380 etc. will reduce aircraft noise by a sufficient amount for residents to be able to live their lives in a normal environment.

The second point they raise is the subject of Quieter Operating Procedures, including new flight paths, steeper landing approaches and landing 700m further along the runway. This will not help the residents of the villages and towns near the airport. They discus the possibility of new flightpaths avoiding the most populated areas. How will that affect locations such as Feltham, Hounslow, and Kew. It will make very little improvement on landings and no change whatsoever on takeoff.

The third item is Runway Location. With Heathrow's option, runways 1 and 2 will not be moved, so any benefit gained for landing or takeoff will not be applicable. There will be the flights that will be using the 3rd runway. It is true that they will produce less noise than if they built the new runway next to the current northern runway, however, they will not produce less noise than we have now as there is no third runway at present.

The fourth point they make is that they will maintain the principle of runway alternation. That is already happening with just two runways. Adding a third runway will still cause further noise, even if runway alternation is maintained, due to the number of flights increasing.

The fifth point they raise is that £550 million allocated to noise insulation or compensation. There is no detail as to how this would be allocated. Many people in Harmondsworth and other villages took up an option some years ago to have double glazing installed. This was secondary glazing. The problem is that it does not last for ever. A number of residents have asked for assistance in replacing their double glazing. This has been refused as they say we are outside of the LAeq 57 level. In this document they go on to say how the number of people living in the area of LAeq 57will be reduced by the quieter aircraft.

To cover this point I have detailed what LAeq means. When a noise varies over time the LAeq is the equivalent continuous sound which would contain the same sound energy as the time varying sound. When we talk about night flights, a plane taking off every 30 minutes could be seen as to not have broken the measurement of LAeq 57 even though it could be much higher. During September 2012, UCL and local residents carried out a noise monitoring program using an application called Widenoise. It involved residents recording the noise levels near their location

using a smartphone/iPad app. Results were then uploaded to UCL and pinned onto a map of the area. [redacted] The results varied from a minimum of 53dbm to 79dbm with an average of 69.76dbm. These were taken between 22.00 hrs. to 24.00 hrs. I am constantly woken at between 04.00 and 0430 every morning by aircraft taking off. It is then difficult, if not impossible to get back to sleep. Using the LAeq method overnight would most likely show a level or around 35, which is below the LAeq 57 level. I do not see any evidence of quieter aircraft just inaccuracies in the way they are measured and the lack of understanding by Heathrow on the effect on local residents. If this runway goes ahead, then the effect upon local residents will not lessen, because new residential areas will be brought into the affected zones.

Yours Sincerely

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