

Strategy for Managing Aircraft Noise at Gatwick

**(Incorporating response to The Sir Howard Davies Commission discussion
paper on Aviation Noise)**

Strategy for Managing Aircraft Noise at Gatwick

1. Introduction

This document has been prepared by a Study Group from Tunbridge Wells, and the Eden Valley areas including Marsh Green, Hever and Cowden. The members of the Study Group and many local residents are all concerned with the many issues relating to Aircraft Noise from aircraft landing at Gatwick Airport, especially in a westerly direction.

The report has three main objectives:-

- To provide a formal response to the Sir Howard Davies Commission on their Airport Policy Framework
- To provide information to the Department for Transport (DfT) and the Civil Aviation Authority (CAA)
- To stimulate the process of establishing a genuinely independent body to develop a proper strategy for Managing Aircraft Noise at Gatwick

Work has been taking place for some time with a number of people in the Tunbridge Wells and many other nearby areas who are all concerned about the growing noise from overflying aircraft heading in the direction of Gatwick Airport. In conducting this study we have been assisted in this process by our MP, Rt Hon Greg Clark, and the Rt. Hon. Sir John Stanley who receive a number of complaints in their offices relating to aircraft noise, particularly complaints relating to night time noise.

From the many diagrams that have been produced by Gatwick Airport Limited (GAL) it is clear that whenever Westerly Operations are in force at Gatwick arriving aircraft are assembled at the two holding locations, just North of Seaford (Willo and Timba) and in some cases Holly, and from those locations aircraft are routed by radar towards Mayfield and then generally in a Northerly direction on to join the 'ILS Localiser' (extended line of the runway) for runway 26 left at Gatwick. The precise track towards the localiser is chosen by ATC to achieve two objectives:-

1. Adequate separation between arriving aircraft
2. Adequate gaps in the traffic to allow for departing aircraft, in what is a single runway operation.

Examination of the charts produced by the Noise unit in GAL confirms that nearly all such arrivals pass over Tunbridge Wells or to the west side and over neighbouring villages, in the Eden Valley. This is also confirmed by those on the ground in these areas.

The height of aircraft passing over the town is around 3-5,000 ft to ideally intercept the Instrument Landing System (ILS) Localiser for Runway 26 left at Gatwick around 2,000 ft between the line from say between Tonbridge and Sevenoaks and the airport. Whilst at those heights the 'decibel' levels aren't particularly high, the modern often referred to as 'quiet' aircraft, (especially Airbus 319 and 320 variants) produce a very unpleasant and disturbing whining noise in what appears to be 'idle power settings' as they continue with the descent.

Just over half of Tunbridge Wells's borough's population live in the urban area of Royal Tunbridge Wells and approximately 45% of the population live within the rural towns and villages.

The total population in these areas amounts to almost 110,000 people.

It is clear that a significant number of people are being disturbed both in the daytime and at night by overflying aircraft.

Whilst it is understood that the Gatwick Airport Consultative Committee, (GATCOM) should represent the interests of the Communities on the ground affected by aircraft noise, Tunbridge Wells, Sevenoaks and Edenbridge have all been refused membership. We therefore propose a new **Aircraft Noise Management Group** to represent the collective interests of those in the communities as opposed to the business interests of Gatwick Airport.

On 18 July, 2013 a meeting was chaired by Tunbridge Wells MP Rt Hon Greg Clark to discuss the views of people in Tunbridge Wells and other local communities to the growing problems of aircraft noise from Aircraft landing at Gatwick Airport.

At a packed meeting in Langton Green Village Hall the following main points were raised:-

- "Aircraft noise can have a detrimental effect on people's health and wellbeing."
- "Level of background noise is important factor – in quieter rural areas, low levels of noise have a bigger impact. International Organisation for Standardization (ISO) says that noise levels for commercial developments should be set at 10 decibels lower in urban areas."
- "There is a need noise monitors in Tunbridge Wells area."
- "Aircraft noise is also a problem for some people during the day – not just at night."
- "Areas of Outstanding Natural Beauty – in National Planning Policy Framework it states that tranquillity is important factor for AONBs."
- "Kent prides itself on being a tourist destination - a rural, quiet area. Aircraft noise is, therefore, a threat to the tourist industry."
- "Why can't air traffic controllers give respite to particular areas?"
- "Can there be an exclusion zone, to prevent aircraft overflying Tunbridge Wells"

- “Angle of descent is important – if it was 4° instead of 3° that would help reduce noise.”
- “Why can’t aircraft manufacturers improve engines to reduce noise? Airbus say new generation of engines will be quieter, could there be some form of ‘hush kit’ fitted to the many existing aircraft which produce an unpleasant high pitched whining sound.
- “Why can’t night flights be banned as at Heathrow?”
- “Local authorities such as Tunbridge Wells Borough Council and Sevenoaks District Council have been refused a seat at GATCOM so it is not representative. GATCOM should be listening to concerns of customers.”
- “Gatwick has said that they want to increase number of long haul flights, with or without a second runway.”
- “There are a number of consultations regarding noise from aircraft resulting from The Airports Commission. A discussion paper has just been published which will inform the Airports Commission: <https://www.gov.uk/government/news/airports-commission-considers-aviation-noise> Everyone is encouraged to respond to this.”
- “The Government’s Aviation Policy Framework (17 - March 2013) states: *“Our overall objective on noise is to limit and where possible reduce the number of people in the UK significantly affected by aircraft noise.”* However that means that some people are afflicted by aircraft noise most of the time.
- “The challenge is to make Gatwick operate in way which doesn’t affect people’s quality of life.”

At the end of the discussions the following actions were agreed:-

The Gatwick Airport Consultative Committee (GATCOM) is not able to properly represent the interests of the Communities in view of their conflict of interests. They are primarily concerned with the interests of Gatwick Airport, the Airlines and the local business communities. There is therefore a need for all local communities to work together in order to develop a Strategy for Managing Aircraft Noise at Gatwick and form an effective interface with the relevant authorities. .

An initial meeting of some of the interested Groups has taken place and this document has been produced with three main objectives.

Firstly, to provide a formal response to the Commission set up by the Government to look into and report on the recommended Airport Policy Framework, (APF) led by Sir Howard Davies

Secondly, it is to ultimately provide a cohesive and comprehensive report for both the DFT and CAA of the serious concerns of those on the ground affected by aircraft noise.

Thirdly, to provide a formal working document ‘**Strategy for Managing Airport Noise at Gatwick**’ for a new ‘Aircraft Noise Management Group’ which will be set up to manage the various aspects of aircraft noise including the vital interfaces between

Department for Transport (DFT)

Civil Aviation Authority (CAA)
Gatwick Airport Limited (GAL)
Davies Commission
National Air Traffic Control Services NATS
Gatwick Airport Consultative Committee (GATCOM)
Gatwick Airport Conservation Campaign (GACC)

It is proposed that the newly created Aircraft Noise Management Group will act as a single entity in these matters and representatives will be invited to take part from the following organisations:-

Kent County Council
Tunbridge Wells Borough Council
Sevenoaks Borough Council
Tonbridge and Malling Borough Council
Edenbridge Town Council
Speldhurst Parish Council
East Sussex CC
Surrey CC
Mid Sussex DC
Reigate and Banstead BC
Burstow PC
Lingfield PC
Hever PC
Cowden PC
Dormansland PC
Tandridge District Council
Bidborough Environmental Group

2. Aircraft Noise and How it Effects Health

At a recent GAL/GATCOM Noise Seminar, Catt Hewitt, who is the Deputy Director at the Aviation Environment Federation (AEF) made a presentation on aircraft noise and its effect on those on the ground? Her main points were that the numbers affected by aircraft noise have been significantly underestimated and furthermore the threshold for noise to become intrusive is lower than previously assumed. In her presentation, night respite was given high priority since aircraft noise can significantly affect health by causing sleep deprivation.

- Numerous studies have shown that aircraft noise at night increases hypertension, even among people who don't wake up. Many of the health issues specifically associated with night noise from aeroplanes are of course summarised in the Government paper [ERCD Report 1208, 'Aircraft noise, sleep disturbance and health effects: a review'](#), 22 January 2013

Sleep deprivation caused by planes has been linked to reduced concentration and performance in adults and cognitive defects in children. However, while a single study on sleep may not specifically relate to aircraft noise due to ethical constraints as well as other complexities involving the isolation of noise effects on human physiology, there are clear parallels between the sleep disturbance caused by aeroplanes documented by the WHO, and general sleep studies attempting to quantify the effects of sleep deprivation. One such parallel study was carried out by researchers at the

University of Warwick, UK. After reviewing 15 studies of 470,000 people over 25 years in eight countries, they concluded that 'short sleepers' – those getting less than a full 5 hours of sleep per night – had an increased risk of heart disease, diabetes, stroke and cancer. Many other studies have found that sleep loss causes immune system deficits (New Scientist 2 February 2013 pp31-39).

One study reported in the European Health Journal dated 2 July 2013, investigated the effect of night-time aircraft noise exposure on endothelial function and stress hormones in healthy adults. They concluded that aircraft noise is more annoying i.e. 'stressful' to unconscious subjects than railway noise or road noise at the same equivalent decibel level. It is generally agreed that this difference in response is partly due to the intermittency of plane flights, but most particularly the levels of low frequency noise produced by jet engines.

- Numerous scientific reports show how noise can cause major physiological changes at subconscious level, even in the short term and during daytime hours. Scientific studies have also clearly established a direct dose response relationship between aeroplane noise and Myocardial Infarction. Furthermore, epidemiologic studies have demonstrated association between long-term exposure to aircraft noise and increased incidences of arterial hypertension, cardiovascular disease, levels of obesity, dependency on anti-anxiety drugs and increased suicide rates.

The public health issues are of major concern, and not least because many people under flight paths are currently unaware of how the noise from planes affects their health, and therefore how they can make informed choices about how to reduce noise effects.

The effect of aircraft noise has also been documented in a study reported in the European Health Journal dated 2 July 2013. They investigated the effect of night-time aircraft noise exposure on endothelial function and stress hormone in healthy adults.

They concluded that aircraft noise has been shown to be more annoying than railway noise or road noise at the same equivalent noise level. Epidemiologic studies have demonstrated association between long-term exposure to aircraft noise and increased incidences of arterial hypertension and therefore cardiovascular disease.

This should therefore be a major concern for us all.

We need to be reassured that noise limits which are set, fully comply with those set by the World Health Organisation

As has been recognised, there is considerable debate as to whether the adoption of the noise metric of 57LAeq16h is truly the point at which noise becomes intrusive.

3. Background

There are a number people who are becoming increasingly concerned over low flying commercial aircraft landing in a Westerly Direction. Approximately 75% of all landing traffic at Gatwick land in a westerly direction and most fly during their approach phase, over Tunbridge Wells and its neighbouring Villages.

As the traffic grows at Gatwick, complaints grow about noise disturbance, particularly at night.

It is a myth that Gatwick is closed at night even though operations cease at Heathrow from 23.30 in the evening until 04.30 in the morning.

Over recent years, various groups have formed in order to provide feedback to the DFT on their various surveys. They have included:-

Edenbridge Town Council

Tunbridge Borough Council

Sevenoaks District Council

GATCAN near Edenbridge

Gatwick Area Conservation Campaign

and other localised groups, all of whom are dedicated to ensure that the situation doesn't worsen and that ideally ensure that some improvement take place.

The subject is complex, but there are some high level points to be made separately for Day time Flights and Night-time Flights.

3.1 DAYTIME FLIGHTS

It would be wrong to give the impression that the importance is not recognised, of air traffic to the economy in general and with the Airlines, Crawley and GAL. However if the DFT are genuine in their intent to strike a balance between the growth of business at Gatwick with those on the ground who are disturbed by aircraft noise, something has to be done in the short term to address this growing concern. With the development of GAL's plans at Gatwick, even without the second runway, for those on the ground the situation can only get worse. In all the presentations from the management at Gatwick it is clear that nothing substantial has been proposed to address these issues. The respite proposals from GAL seem to amount to not more than massaging the Status Quo.

We would therefore like to make the following suggestions for consideration by all organisations involved, if this subject is to be properly addressed.

1. Invite ATC to investigate creating an 'exclusion zone' of say a five mile radius from the centre of Tunbridge Wells with a minimum overflying height of 10,000ft
2. Invite the Aircraft Manufacturers to properly address the whining sound of their engines 'in descent'. The Airbus engineer claimed at the recent Noise seminar that the new engines, with the 'serrated' rear cowling will be quieter and might address this issue. If that is correct, they should be invited to investigate, as a matter of urgency, the possibility of retrofitting this technology to current aircraft engines as soon as possible.
3. When wind conditions are benign, it might be prudent to use the Easterly runway, i.e. approaching the airport from the West, wherever possible. This will of course cause some additional disturbance to the West of Gatwick but it is an area that is rather less populated than those in the flight path for Westerly landings
4. A noise monitor should be established in Tunbridge Wells and Marsh Green without delay

3.2 NIGHT-TIME FLIGHTS

The night-time disturbance is a growing and rather more critical for a number of people in this area. It was most interesting at a recent meeting at Gatwick Airport, an Independent Technical Advisor, Ros Howell, made a suggestion that night landings should cease, and recommended no night time operations. This was rejected by GATCOM.

It is suggested that the response to the Commission from GATCOM should have contained the following:-

1. The present quota system for allowing night flights should be abandoned. It seems to serve no useful purpose and is so 'generous that Airlines can operate night time operations without being constrained by that system. It simply adds to the 'smokescreen' Almost all aircraft using Gatwick at night are so called 'quiet aircraft' according to the significant list of aircraft/engine types within the quota system. However those aircraft, for reasons given above, can cause considerable disturbance and this is exacerbated at night.
2. If there is to be some progress towards properly understanding the effects on noise on those on the ground, then night time operations should cease within the period of say 23.30 to 06.30. If there can be a voluntary agreement for no movements during a specified night time period at Heathrow, why is it difficult at Gatwick?
3. It was argued that there is a need to provide for aircraft to land in the night for operational reasons. That argument is rejected since it should be part of the airlines 'deal' in this subject that they find a method of operating that does not include night time operations. Even night landings for operational delays should not be permitted, other than in extreme circumstances
4. Closure of the airport at night should result in considerable financial benefits for many organisations
5. In the GATCOM response there is a claim that there is 'no material difference for night time landings in either an Easterly or Westerly direction'. There is no doubt, as has been explained above that in marginal wind directions, ATC should wherever possible choose Easterly direction landings if night time operations are to be allowed to persist.

4. The Problem

It is clear that Aviation at Gatwick forms an important part of the local and UK economy. With new Owners at Gatwick their key and stated objective is to increase passenger traffic, i.e. flights. The short haul operators in Europe, including Easyjet and British Airways all have significant expansion as their stated objective.

One of the main issues is noise and how it affects people on the ground.

Most people do not like the repetitive noise from planes nor believe that it is good for them, but any complaints to GAL about aircraft noise are simply logged and then freely ignored. Plane noise is of major public health concern, and not least because the full extent of the effects on both human health and behaviour are currently unknown.

At present at least two Airlines have scheduled flights leaving Southern Europe airports at around 1.30 am en route for Gatwick, which during Westerly operations these aircraft drone across Tunbridge Wells and many other localities in the flight path, at around 3,000 ft or less as they approach Gatwick at approximately 3.00 am causing disturbance to sleep patterns. In fact recent European research shows that even if people on the ground do not wake their sleep patterns are disturbed, causing potential health problems

Some of these aircraft, believed to be the Airbus 319 and 320 produce a high pitched engine whine when in descent and 'idle power settings' which is annoying during the daytime but particularly irritating at night.

With the recent proposals from Gatwick Airport Limited, for a second runway at Gatwick, the problems from Aircraft Noise and in particular night time noise will be greatly exacerbated.

5. Objectives

The Primary objective of this document is to develop an initial **Strategy for Managing Aircraft Noise at Gatwick** as a working document that can be refined and developed with the involved parties to ensure a proper balance between the commercial interests of the airlines and the new Owners of Gatwick Airport (GAL) and those on the ground affected by aircraft noise.

It is an appropriate time to be doing this in view of the increasing irritation caused to those on the ground by aircraft noise and also the Draft Airport Policy Framework document published by the Government and to which responses are requested by 6 September 2013.

The main action at present is to determine the most appropriate strategy to present to Rt. Hon. Greg Clark, Rt. Hon. Sir John Stanley, Rt. Hon Michael Fallon, Councillor Catherine Mayhew and Matthew Balfour . Simultaneously it will be sent to The Davies Commission, the DfT and CAA.

Following publication of the document it is planned to send copies to all relevant Councils inviting them to take part in the Aircraft Noise management Steering Group as this is considered to be the most effective mechanism for properly representing the views of those on the ground to the considerations of both the Davies Commission and the Minister for Transport.

In particular it is essential that all local Communities affected by noise cause by aircraft traffic landing and taking off at Gatwick Airport work together in a cohesive Unit. By working as a single unit it will be much easier to develop the management strategy and have meaningful dialogues with:-

- The Government
- DFT/CAA
- Gatwick Airport Limited
- NATS (Air Traffic Control)
- The Airlines

GATCOM, the intended organisation to provide this co-ordination, is seen to be irrelevant, mainly as a result of their conflict of interest.

6. Short Term Proposals

Based upon numerous studies by the various interested groups the following proposals are recommended:-

- Create a Aircraft Noise Management Group to work independently of GATCOM since it is clear they are unable to properly represent the interests of those on the ground affected by aircraft noise
- As soon as possible cease night-time operations at Gatwick, between 23.30 and 06.30
- Until this significant change can be phased in, move those aircraft that generate engine whining noise, to the category of 'not allowed to operate' in the current noise control quota system
- Gatwick Airport should remain open for emergency landings up and until 12.30 to allow for operational delays. However to ensure the system is not abused, substantial fines should be applied to any aircraft using this facility.
- It is understood that Airbus believe their next generation engines will be genuinely quieter due to serrated edges to the rear of the engines. It is therefore recommend that Airbus, at a senior level, should be asked to see whether some form of 'Hush Kit' can be made available to their current engines to make them quieter.
- Invite Air Traffic Control (NATS) to investigate the feasibility of directing aircraft to not overfly large conurbations or nearby.
- Invite Air Traffic Control to review the possibility of having a 4 degrees Glide Slope rather than the current 3 degrees in order to keep landing aircraft as high as possible, as late as safely possible, for all approaching aircraft.
- Invite Air Traffic Control to compensate for height reduction for aircraft flying into a meteorological 'depression'
- Ensure that the Noise Monitors for this area are installed without delay

7. Longer Term Proposals

The critical issue for the longer term is whether Gatwick should have a second runway.

Unless there is serious and tangible progress made in line with the above short term proposals, there can be no support for the proposal made by Gatwick Airport Limited for a second runway at that location. Notwithstanding the possible benefits of such a scheme to local businesses in the Gatwick area and of course the Airlines operating there, many other options are available and doubling the traffic at Gatwick with no recognition of the harm to the environment, is not acceptable. Sensible plans have to be developed with the Communities which show how the effect of doubling the traffic can be ameliorated in what is in the main, an Area of Outstanding Natural Beauty.

8. Detailed response to Sir Howard Davies Airports Commission.

The Airports Commission appears to be adopting the Government's strengthened approach. We believe, however, that there is a need for the Airports Commission to adapt this stance on a number of aspects, and saying so. We will also be drawing attention to some other "soft" issues which have been overlooked in the approach to the Noise story. The sheer magnitude of the changes which are in prospect will not just be affecting a small minority of rural hamlets, but an increasingly large swathe of tranquil countryside, increasingly overflown AONB's, and their sizeable communities. A fairer balance must be established.

In this response we comment on the Government Draft Paper in chronological order using its reference numbers for our comments.

Chapter 1 Introduction

In 1.2 it is acknowledged that Noise will be a central issue for both phases of the work of the Commission including the deliberations on “sweating” existing capacity and the expansion of new capacity in the longer term. It is worth pointing out that Gatwick residents could be faced with increased noise in both scenarios.

In 1.12 reference is made to airports being required to confront tradeoffs whether this be concentration versus dispersal or restrictions on night flights seeking examples of international best practice. Trade-offs should be considered more widely, as a means of squaring the circle between those supporting expansion and those for whom expansion and the extra noise that comes with it would act as a negative.

One possible example of a trade-off could be the concept of compensating the policy of flight concentration on the one hand by cessation of night flights on the other, until night flights are phased out altogether.

But if that was simply to mean more daytime flights which in itself would raise public concerns, this would devalue the trade off on offer so care is clearly required to ensure that the overall benefits are not degraded by such means.

Chapter 2 How does Noise Affect People

It has been recognised, there is considerable debate as to whether the adoption of the noise metric of 57LAeq16h is truly the point at which noise becomes intrusive. In our contribution to the Airport Policy Framework (APF) we stated the following

- The average noise that leq measures is meaningless because it includes the quiet periods when there are no planes. It does not tally therefore with the way people experience noise.
- It excludes the hour between 6am and 7am – a busy hour of the day (on 3 September 2012 there were 44 movements at Gatwick, the majority landings).
- There is a predominance of computer derived contours which tend to give too much weight to individual planes (which have become quieter) and not enough to the number of planes (which have increased significantly).
- On the ground measurements are not being taken in areas further away from airports, but these are the places which in recent years claim to have experienced a considerable upsurge in aircraft noise and associated disturbance.
- The methodology is inconsistent with the Environmental Noise Directive.

Reports have been seen, which argue that the noise differential in rural areas could be as high as 10decibels because the background noise is lower. Setting that aside, we have already drawn your attention to our belief that an unweighted comparison between the numbers affected by noise within this contour at Gatwick is not representative. The onset of another runway would add considerably to these statistics.

Furthermore, the maps which were presented by the DfT as part of the Night Flying Restrictions Consultation showed that while Marsh Green is within Lden55bBA, other surrounding parishes such as Cowden and Hever for example were outside. All three parishes are shown to be outside Lnight8 hours and Lnight 6.5. The night noise contours selected to measure the onset of annoyance. Given that the normal flight path was also outside these contours. This is difficult to comprehend.

Furthermore, neither is this consistent with the findings of the two open meetings (in Edenbridge December 2011 and Langton Green July 2013) held to discuss community concerns at which night noise was stated as a key concern by the public who attended.

This all raises questions about the credibility of the measurements, the placement of and the control of data from the relatively few noise monitors positioned in the area. There have been many requests from the community for more noise monitors but there has been a noticeable inability or reluctance by the airport to provide more.

We share the view that the contours adopted are not representative of the noise regime experienced by this community and data credibility needs to be borne in mind as a consideration by the Commission.

You have observed that the number of complaints is not necessarily an accurate measure of those who suffer annoyance. In the past, the response of Gatwick's Flight Evaluation Unit at Gatwick (former name) to people making complaints about a particularly noisy experience has been ineffectual i.e. "basically outside the airport's control". This is hardly designed to encourage further public input.

We are concerned by the clear linkages which have been made between sleep disturbance and health impairment and the impact on productivity. This is particularly relevant in the summer when people tend to sleep with their windows open. There is also thought to be a link with cognitive learning in children.

It is suggested that greater recognition be given to the impact of noise on the health profile of communities who are affected by the concentration of flights.

Chapter 3. Measuring Aviation Noise

We are not in a position to offer technical observation however it is possible to make some overviews.

From our daily experience, the magnitude of the noise will be characterised not only by the technical configuration /age of the aircraft but also the height and manner at which it is flown. We go into further detail at the appropriate point but suffice to say, there is a wide and visible variation between the observed heights of aircraft approaching Gatwick. It is also fair to say that even small adjustments in height can make a considerable difference to the impact for people on the ground.

Equally, we notice that the relatively small adjustments in the route of approach taken by individual aircraft can make a profound difference to noise experiences on the ground. These differences (of

height and route) are observed very frequently and could, if managed on a consistent basis, provide a form of respite, and a fairer spread of the disturbance.

Turning to the actual duration of the noise experience, it is also noticeable that certain of the newer generation of aircraft operated by Easyjet for example generate a particularly intrusive whining/screech noise which can be heard a longer distance away, and for a longer duration compared with other airlines/aircraft.

We do not understand the argument that the new, wide body jets are “quieter” because they embody the best of new technology. Our local experience is that they are actually noisier than smaller aircraft perhaps because they appear to approach Gatwick at much lower altitudes than smaller aircraft. Certainly the impact of the larger jets frequently provides the most disturbances and with the growth of long distance movements which tend to use the bigger aircraft and to arrive early in the morning, this can only get worse.

The Commission has asked for opinions on the adoption of alternative methodology for the measurement of airport noise imprints.

It seems to us that the collection of data needs to be handled by independent agencies and made available transparently. GAL should also be required to post regular website updates of the interpreted data from individual meters for individual flights with information about airlines/aircraft breaching their operating standards for noise. We believe each plot should provide details of the height of approach/departure of each aircraft being measured.

Secondly, the spread of meters needs to reflect the aircraft noise footprint. Their distribution is sparse in the outer areas and the reluctance of the authorities to increase their number is manifest.

We have no problem with there being a weighting for night movements over day movements because we believe this would reflect the greater intrusion presented at night. We also believe the summer night weighting should be even higher because people tend to sleep with windows open at night for obvious reasons.

Chapter 4 Quantifying noise effects

Once again your paper requires a level of technical competence which is not at our disposal however some empirical observations can be made.

A simple noise and social survey is presented as one method of identifying people’s reaction to whether there is a noise problem as opposed to a laboratory study. The dose-response derives the likely response by a selected population to noise exposure.

We have no information to determine whether dose-response surveys have ever been tried out on people living in the Eden Valley when changes to flight management policies were introduced in 1996 (concentration) and 2003 (night flight quotas).

Both methods that you have outlined (simple social surveys or laboratory tested programmes) would require a level of sophistication and a greater knowledge of the volumes and precise route plans but in principle we would support this approach, conditional upon the full participation and

involvement of the communities likely to be affected in the formulation of the survey and the openness of its interpretation.

Your approach enumerates a number of conclusions drawn from various studies. We do not think that the use of average noise levels (favoured in early studies) provides an appropriate method of establishing a realistic measurement of disturbance. The impact of one noisy aircraft, particularly at night, can have knock-on effects for sleep disruption even though subsequent aircraft movements are made by quieter aircraft ("once awake, always awake").

We have also considered your presentation of more recent attempts to categorise noise disturbance and in particular ANIS (1982) and ANASE (2007). From ANIS the measure of 57L Aeq16h was derived and remains the preferred Government metric even though the later work has stated (and is "generally accepted") that "more people are annoyed by a given level of aircraft noise exposure than they were when ANIS was conducted." It is also reported that local issues may have distorted the results of the ANASE study which would appear to support the Government's reluctance to change the criteria.

We believe that local issues should be taken into account because a national standard, which does not reflect local realities, is unlikely therefore to produce a result which is fit for purpose. We have stated the unique combination of circumstances which blight the communities around Gatwick flight paths and are not experienced at other locations. We also add that a single runway operation offers less opportunity for respite than is possible at Heathrow so the local factor must, in our opinion, be accommodated in your evaluation process (and the statistics adjusted in the light of those circumstances).

a)Night Noise.

This is perhaps the most unpopular aspect in the local community of Gatwick's licence to operate; it is also perhaps the most misunderstood and misrepresented aspect of GAL's operations.

We were most disappointed by the Government's approach to night noise; by separating consideration of this aspect from the overall policy framework the opportunity for reaching a balanced approach to the treatment of aircraft noise has been denied. The latest version of the APF devotes but two paragraphs to the subject stressing the value of voluntary schemes such as the night curfew scheme operated at Heathrow. Gatwick Airport will not introduce a ban on night time operations of its own volition.

The current Noise Quota system for night landings should be abandoned since it is a meaningless tool that pretends to control night time noise. All aircraft in the landing phase are noisy particularly at night. Furthermore the present quota system is so generous that it provides the possibility for airlines to operate night time landing schedules. In fact the significantly reduced landing fees at night provide an incentive for them to do so.

There is no explanation in the draft APF of the manner in which the Night Noise consultation will be incorporated into the overall noise equation.

It is appreciated that the Commission has included this topic in its overall consideration of Noise and its impacts. This does at least provide the opportunity for the consideration of trade-offs for those communities which are blighted by a combination of factors of which night noise is but one.

At the height of summer schedules, the frequency of landings at Gatwick through the sleeping hours can be as high as one every 6 minutes (source the Gatwick website; for example 8 July 2011). The headroom for more night flights during the summer and winter allocations is 1500 and 1800 (respectively) as contained in the Commissions Paper which represent potentially huge increases over current levels. With the increasingly long-haul nature of operations and the voluntary ban on night flights at Heathrow, Gatwick retains a high propensity to capture new (early morning) throughput.

Whether or not one takes the Government noise level selection, or lower levels as recommended by WHO, it is not unreasonable for communities living alongside airports to seek a cessation of night time operations between 23.30 and 06.30. This Study Group strongly supports that approach and in the absence of a satisfactory trade-off, will continue to press Government for the complete banning of flights during these times of the night.

Although the faster phase-out of noisier categories of aircraft is sensible, the number of QC/4 now being operated at night is relatively small, apparently. A QC/2 ban would be more meaningful but likely to be contentious given the size of this category. More attention therefore should be given to the height and manner in which the aircraft are flown (landing).

b) Monetisation

In response to the APF, some Councils expressed its dislike of monetisation in principle, as it removed the onus of responsibility away from the industry to reduce its noise impact by direct means.

The Group also dislikes the idea being posed by your questionnaire that impacts on health can be compensated this way. Compared with removing the source of the problem e.g. by a complete ban on night flights or reducing the impact of noise by respite or by technological improvements for example, buying off people financially has a somewhat unattractive ring to it.

We also doubt whether an adequate unit of compensation can be devised and whether the intention would be to financially compensate those who are directly affected i.e. overflown if, as part of an overall trade-off arrangement, if compensation was introduced.

Should a scheme to compensate residents be introduced, we believe the metrics should recognise the scale of disturbance (by decibel count), frequency of movement, and be time related (day versus night). We believe the fund should be supported from the revenues received from airlines being penalised for breaches of the noise regulations and paid directly to the affected parties in cash.

We do believe that operators should be prevented from reducing or discounting landing fees during quiet periods of the day/week/year. We understand that night landing fees are very much lower than daytime charges which we would suggest is the reverse of what should be happening

We also believe that penalties for breach of noise regulations are derisory (and do not exist for landing infringements). We believe that as part of a package of regulatory changes these measures should be updated and the proceeds directed to the benefit of those individuals/communities directly affected by the breaches caused.

Chapter 5. Mitigation

We appreciate that the Davies Commission has been served a very complex task but even though we represent a “minority interest” we do expect to be treated fairly, with a balanced set of conclusions. Hence if concessions have to be made then, as we have raised previously in the context of flight concentration, these should only be considered as part of an open process of trade-offs. This concept i.e. trade-offs appears only in passing throughout Paper 5 so at risk of repetition, we will emphasise the importance we place on it in the remaining sections.

Probably the most important missing ingredients in the safeguarding of the public interest by successive managements at Gatwick, is public trust. This is due to a combination of features including the constant denials that a material noise issue exists and the insistence of working through GATCOM which can hardly be described as a representative body, as has been described.

We suggest it is somewhat unfortunate that the Commission has chosen to quote Sustainable Aviation’s claim (5.2) that “noise from UK aviation will not increase despite a near doubling in flights over the next 40 years”. The absence of any qualification or perhaps a counter view from an equally authoritative body more in tune with the interests of communities affected creates a somewhat biased picture.

You have based your approach to mitigation on the four headings adopted by the International Civil Aviation Organisation’s Balanced Approach, the route selected for the APF. We would like to place on record that we do not understand why you have followed the Government’s decision to consider Mitigation through Operational Restrictions only in the last resort. Doing so will not achieve the balanced approach to these issues and rules out some low hanging fruit solutions.

i) Reduction of noise at source through technological improvement.

We agree with the idea that airports should incentivise their clients by the use of favoured tariffs for genuinely quieter planes.

ii) Mitigation through land use planning.

No comment

iii) Mitigation through operational procedures

The virtues of concentration of flight paths versus dispersal have already discussed and our belief is that this needs to be considered within an overall discussion on trade-offs.

You have concluded that steeper angle approaches may be prevented by the new technologies under development (Ironically this provides a timely reality check on Sustainable Aviation’s opening boast i.e. technology improvement may be reaching the point where it actually reduces noise mitigation).

We actually disagree with both your observations. In practice, we witness major discrepancies in the heights with which individual aircraft approach Gatwick on a regular daily basis. Secondly, we notice that not only do lower flying aircraft increase the quantum of noise overhead, but there is a further impact; the length of time over which the noise disturbance lasts is extended the lower the aircraft flies. In summary, the higher the planes pass overhead the greater the benefit for the community- this is an easy deliverable because it already happens in certain cases, but there is no regulatory framework to enforce it.

The manner in which aircraft are operated is relevant in other ways. You have mentioned the trade-off between fuel efficiency and lower noise through technological improvement. From our observations we believe there are considerable economies which could be made without raising safety issues. In 2.4 we refer to these “cultural issues” i.e. the manner in which individual aircraft are flown; the implications for unnecessary noise and fuel economy are obvious.

We would like to see a proactive regulatory approach to these “cultural issues” as the industry has been dragging its feet for too long and which, if addressed, should provide a win/win for all concerned. This could be achieved by the introduction of steeper angles of descent so that all aircraft maintain higher (and quieter) heights of approach for longer (as some aircraft are already achieving voluntarily). There should also be noise abatement restrictions (and associated penalties) for aircraft landing as is already applied to departing aircraft.

We agree, more advance information from the operators on their flight planning would be appreciated particularly to those operating major tourist venues in the Eden Valley but we see no determined effort by Gatwick Airport Limited and GATCOM to work with local communities such as ours in an open and transparent way (other than through our one KCC representative on GATCOM). So in response to your enquiry, we offer Gatwick as an example of worst practice.

iv) Mitigation through operational restrictions.

You have presented this as being the ICAO’s option of last resort after the above measures have been exhausted.

Let us assume that all reasonable measures have been exhausted and communities such as ours continue to face unreasonable blight, in this case we understand you would consider restrictions such as

-Differential landing charges.

As discussed above, we tend to agree with you that their introduction provides a soft option for airlines to delay the introduction of quieter aircraft. However, the differential between night and day landing charges which heavily incentivise airlines to operate at night, and tourists (predominantly) to travel at night should cease and be reversed at the earliest opportunity.

Operating restrictions-Night operations.

We have already commented that we believe the discussion on night noise should not have been separated from the APF process, which prevents a comprehensive discussion as part of the overall debate on noise. It also degrades the opportunity for a complete discussion on trade-offs.

Our views on night noise have already been communicated in detail to the DfT and have been incorporated in the relevant sections of this document. In the context of health issues and night flight disturbance we opined that we did not see it as a cost benefit exercise but a concern in its own right and should certainly deserve more attention in the next phase of DfT's work. The same comment applies to the work of the Airports Commission.

It is perhaps worth recording that in the Gatwick Noise Action Plan, voluntary action number 55 contains the statement that it will merely continue to monitor Government research and only "where applicable and appropriate" adopt the guidelines of WHO. This is hardly proactive leadership material by either the Government or the industry.

- Noise Envelopes

We have commented in the past on the concept of noise envelopes and our views can be summarised thus

- If Edenbridge, for example, was situated within a noise envelope, in the absence of any other improvements e.g. respite, it would remain blighted and reliant solely on technology changes which take years to feed through. Meanwhile traffic levels would be increasing."
- Given subsequent developments in policy our general feeling about noise envelopes is that the Government has, in concept, already consigned the rural community to a noise straight jacket by its adoption of flight concentration as a policy. Earlier comments on trade-offs therefore are of particular relevance so that the rights of rural communities are not sacrificed to protect the interests of the wider economy.
- Given the lack of consensus on what constitutes an appropriate noise marker for disturbance, our caution has hardened against noise envelopes.

- Independent Noise Regulator

There is full support for the concept of an Independent Noise Regulator appointed for each main airport, whose costs could be paid from penalties extracted from airlines that breach noise regulations.

- Compensation

We are broadly against financial compensation in favour of agreement on acceptable levels of noise management. We would say, however, that we are concerned that the debate on airports expansion has been ongoing for more than a decade during which time house owners in certain locations have effectively been blighted for this whole period. In the case of Gatwick, the reverse position has been experienced especially as until very recently GAL had been declaring that they had no aspirations to seek a second runway. This uncertainty for house owners is unreasonable.

So we would not rule out the principle of compensation as part of a trade-off measure of last resort where it has not been possible to agree a fair selection of measures to balance the needs of the few against the wider economic interest.

2.1Regulatory Issues

Flight Concentration and Trade-Offs.

The Government's decision to maintain flight concentration represents the continuation of a policy which has been in operation since 1996. We believe it was introduced without proper consultation of the communities it now increasingly affects. The trialling of the SPL/NP-NAV regime will permit a heavier concentration of aircraft over narrow corridors meaning that even more flights than before will be directed over Tunbridge Wells, Edenbridge and neighbouring communities. The only prospect for respite at present comes from a change in wind direction.

In his Sustainable Framework Scoping Paper for UK Aviation of March 2011, the then Secretary of State for Transport Philip Hammond volunteered discussion on trade-offs as a general principle. We consider this topic (i.e. dispersal versus concentration) should not be overlooked as a natural candidate for an overall trade-off determination because clearly the interests of the minority are being overridden for the wider benefit, without any form of practical acknowledgement.

As a general principle, we would like to see the Airports Commission adopt a proactive approach to the application of trade-offs to resolve this, and other such matters contained in the report.

2.2 Self Regulation Issues

2.2.1: Airport Consultative Committees (ACC's).

The Secretary of State has recognised the need for better engagement between airports and local communities particularly with respect to noise issues. The APF, however, has placed even greater reliance on voluntary agreement between communities and the aviation industry (See APF 4.6-4.10).

This laissez-faire approach is predicated by the belief that ACC's are fully representative of the communities they represent, **a view we fundamentally contest.**

Our experience of GATCOM is that the only "community" interests who are served are those of the airport operators and the main Councils who will benefit from the revenue streams which will increase from expansion. As an example, West Sussex Council has already voted in support of Gatwick's plans for a second runway. KCC have added their support to the idea that capacity at Gatwick should be expanded. These powerful authorities have voiced their opinion without any consultation with those most likely to be affected by the noise.

Since these decisions form no part of a co-ordinated policy of engagement between airports and local communities, including those communities likely to experience the disbenefit of noise, it is now proposed to establish the new **Aircraft Noise Management Group** to provide an effective interface.

If the Government is determined to place its reliance on these organisations to reach voluntary agreement on such complex topics, then GATCOM and its sister organisation NATMAG, need to be more open and transparent. Furthermore, such bodies need to be professionally and independently chaired and more representative of the local councils whose communities are affected by noise. As an example of their closed culture, recent applications by Sevenoaks District Council and Tunbridge Wells District Council to become members of GATCOM were firmly rejected. They also need to be independently funded.

Reluctantly we have been forced to form a properly constructed management Group, independent of GATCOM group to ensure that all Communities are properly represented. We will nevertheless inform GATCOM of key issues as our Strategic framework develops.

We have raised this aspect because local communities' contribution to the noise debate is not being heard given the Government's misplaced faith in the current structure of ACC's, and there is no mention in your paper of this topic. We believe there is a need for much greater transparency throughout, a theme we return to below. and this should be a prominent feature of your response to Government.

2.2.2 Self Regulation: Airport Master Plans and Noise Action Plans(NAP's)

The Government places considerable importance on these entities and on the face of it, they give the industry the opportunity to present a glowing picture of its forward plans, including its plans for noise mitigation. In practice, matters can be very different particularly where noise issues are concerned. Master Plans and NAP's of course are self monitored and have no regulatory mechanism or measurement targets with real "consequences" for failure to meet such plans. They are approved by the DfT.

This structure is not conducive to the building of public trust; in fact it can be very corrosive especially when claims are being made by the operators about noise targets and the incidence of complaints falling.

Therefore, while these compliance aspects may not be part of the Commission's direct remit, we do believe that given the complexity of the issues around noise, the absence of an effective partnership based on trust and openness between the airport and the local community surely restricts your ability to deliver workable outcomes.

All too frequently we hear from the operators that there is no noise problem or the problem is in decline. As an example, the evidence at the Edenbridge Workshop of December 2011 compiled by GAL* (but only after the publication of their Master Plan) established that there is a problem and a packed assembly hall at Langton Green (Tunbridge Wells) last month shows that community concerns are increasing. Yet the DfT's own noise maps show both communities to be outside the noise complaints threshold-is that believable?

The Commission has promised "a fresh and independent view at arm's length from politics" which places it in an advantageous position to persuade Government that it needs to adjust its approach to these "soft" aspects of its Aviation policy.

2.3 Independent Noise Regulator

Given the widespread lack of trust in the present system and the misplaced emphasis being placed on self regulation when the stakes are so high, we believe that some form of Independent Noise Regulator, (INR) is essential at local airport and inter-departmental level.

At local level, we are somewhat bemused that the Government is planning to appoint ACC's to monitor the implementation of noise management and NAP's. For this to be workable ACC's must be transformed and we would like to see some form of INR to oversee their performance.

Furthermore, given the potential conflict of interest at inter- departmental level, we also believe that some form of independent regulation is essential to ensure fair play between for example the work being done by the CAA in its various new roles.

This will require more work and definition of the role of independent regulation and we consider a separate Consultation with expert proposals for discussion should be implemented.

9. Conclusions

We have explained that we are not qualified to offer solutions on some of the more the more technical areas of the Commissions Paper but we have offered empirical suggestions from our own unique experience as a “front line” community.

We have flagged Night flights as a key area for greater regulatory control. In principle we believe that Night flights at Gatwick are excessive and as a result large numbers of people are being denied the possibility “of a decent night’s sleep”. The situation is exacerbated by the absence of minimum height controls and noise controls for landing aircraft. We believe that Night flights into and out of Gatwick should be severely curtailed and in the absence of an acceptable trade-off, be stopped altogether. This would seem to be more consistent with European practice where most airports cease operations during night time.

We do not consider that operational restrictions should be considered as matters of ‘last resort’.

You have also requested input on “other relevant topics” and herewith is a summary of our input.

We have raised our concern at the absence of any comprehensive thinking on trade-offs especially as the conventional means of resolving noise issues e.g. dispersal and respite appear to be unworkable, in your opinion, in the case of Gatwick. We think this approach is unfairly narrow which may be a reflection of hardening attitudes to those who have genuine noise issues. In this context we have expressed our concern that flight concentration has been handled as a “done deal” especially if it spills over into the government’s approach to Noise Envelopes.

We have explained in some detail why the lynch pin of government policy viz the reliance on self – regulation and voluntary solutions between the operators and the community for key areas of the APF, is absolutely unworkable, at least as they are currently constituted. We have cited GATCOM and NATMAG as unfit for this purpose as a local example of a process which needs to be financially independent of the operators, chaired by a professional and independent Chairman, properly representative and inclusive, and formed of committees who can speak with authority and holds regular and open meetings.

We have not seen an adequate definition of “community” which is a term which frequents the thinking in Government references to voluntary agreements. Given that some larger councils comprising the word “community” have more in common with the airport operators, the rest are reliant on outcomes determined outside their control. In agreeing to support Gatwick’s second runway without consultation with the rest of the “community” within its aerial footprint, Kent County Council and West Sussex County Council have provided a clear illustration of this point.

We have expressed our concerns that Noise Action Plans and Master Plans have no regulatory teeth. There are no penalties for missed targets and are administered and measured by the authors who publish them. We believe this is not a realistic or credible way to proceed. More emphasis is required to create a culture within the industry which recognises the need for noise amelioration as part of its corporate and individual day to day performance plans. Current Plans are already out of date in any case.

An independent system of regulation or group is needed to provide the checks and balances required for the management of the expansion of the Aviation industry and to resolve interdepartmental conflicts of interest. We question however, whether the CAA can be considered an independent advisor on the subject of airports noise management.

We have stressed the importance in a cultural change to drive down the quest for a greater awareness of the impact of noise on communities at flight deck level.

More noise meters are required and monitored by an open and transparent system regulator. The choice of noise contours does not appear to correctly represent the actual and perceived noise levels experienced by communities under the Gatwick flight path.

In principle we are against financial compensation except as a last resort solution

Given that no-one knows where many of the new routes will be created to handle the kind of expansion foreseen in this process, there must be an opportunity, as part of any government decision, for an open and transparent means of consulting with the public to explain how flight routes might be expanded before they are set in stone. The APF pays lip service to this undertaking but it needs more definition and commitment.

Finally, irrespective of the outcome concerning a second runway at Gatwick, our call for urgent action applies to the existing and planned single runway capacity operation.

10. Recommendations

As a result of considerable and careful discussion on these important issues the following recommendations are made.

1. An **Aircraft Noise Management Group** should be formed immediately to properly represent all interested communities from County, Borough, Districts and Parish Councils.
2. Abandon the current noise quota system since it serves no useful and practical purpose.
3. Request an early meeting of the Management Group with Representatives from Davies Commission
4. Seek the urgent appointment of an **Independent Noise Auditor**
5. Install Noise Monitors in Tunbridge Wells and Marsh Green at the earliest opportunity
6. Seek agreement to re-classify Airbus 319/320 aircraft as outside the noise acceptability range for night time operations. Invite Airbus to look at feasibility of fitting 'hush kits' to existing engines, in particular the current models using operating at Gatwick.
7. Obtain agreement from all involved to cease night time operations at Gatwick between the hours of 23.30 and 06.30 at the earliest opportunity in view of the clear health hazard generated by this activity

8. Until such time as this can be achieved introduce penalising landing charges for aircraft landing between the above hours.
9. . Arrange meeting with representatives of GAL, NATS, Airlines and GATCOM in Tunbridge Wells, Edenbridge, Lingfield and Marsh Green during 'Westerly operations' to see problem 'on the ground'.
10. Arrange meeting between the newly created Aircraft Noise Management Group with GAL, NATS and Airline representatives to review the possibility of introducing flying procedural changes including an increased ILS descent rate of 4 degrees from m 3 degrees
11. Arising from those meetings, discuss any possible ways in which matters can be improved in the short term.
12. Arrange a meeting with representatives of GAL, NATS, Airlines and GATCOM to discuss issues relating to daytime operations as traffic at Gatwick increases. Also review current outline plans from GAL for second runway after 2019.
13. Determine the best acceptable medium and long term strategy for managing aircraft noise
14. . Conduct further research on the effect of health on those affected.

Finally in special thanks are due to the members of the Study Group:

Jane Vogt
Jennifer Bennett
Kealey Castle
James Sheridan
Ben Bix

Also special thanks to Tunbridge Wells BC and Edenbridge TC for their help.

David Howden

david.howden@virgin.net

6 September 2013

Sent to **Sir Howard Davies Commission**
Department for Transport
Civil Aviation Authority

Copy to **Rt Hon Greg Clark (MP for Tunbridge Wells)**
Rt Hon Sir John Stanley (MP for Tonbridge and Malling)
Rt Hon Michael Fallon (MP for Sevenoaks)
Councillor Matthew Balfour
Councillor Catherine Mayhew