

[REDACTED]

[REDACTED]

As a resident of the parish of Speldhurst, and a parish and Tunbridge Wells Borough Councillor, I have given this matter a great amount of time and thought over the past two years or so, attending all meetings organised by the Airports Commission and local councils and GATCOM that I possibly could (the latter as an observer, as GATCOM have twice refused to allow Tunbridge Wells Borough Council to become a member, although the Borough is much affected by Gatwick air traffic.)

I would like to inform you that I am strongly convinced that an expansion of the airport of Gatwick would bring few advantages to this area (if any! – Gatwick is Big Enough), and many disadvantages. I give just one, personal, example: I own a farm and our main enterprise, one without which the farm would not be able to continue trading, is concerned with Tourism. The farm is situated on the brow of a large hill, B & B is carried on in the farmhouse, and we run a campsite. We are in the High Weald Area of Outstanding Natural Beauty and the views are far-reaching in all directions. This means that we have a wide sky-view, very low ambient noise, and we can see and hear aircraft approaching from many miles away. This summer we have experienced almost uninterrupted noise intrusion with westerly arrivals. Obviously the campers, with just tent fabric to shield them from the disturbance, have been complaining.

If GATWICK were to be allowed to expand, with the predicted doubling of the number of passenger movements per annum, I fear that our business would be fatally blighted, and the farm would have to be sold, probably at a significant loss.

I would like to endorse the attached submission being sent to you today by Tunbridge Wells Borough Council, as I completely agree with all its content. I would particularly like to draw your attention to the Appendix on the effects of Noise.

With Best regards

Julia Soyke

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2 February 2015

Airports Commission Consultation  
PO Box 1492  
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## **TUNBRIDGE WELLS BOROUGH COUNCIL RESPONSE TO THE AIRPORTS COMMISSION'S CONSULTATION ON PROPOSALS FOR ADDITIONAL RUNWAY CAPACITY**

Tunbridge Wells Borough Council has considered the proposals set out in the Airports Commission's Consultation.

The Council considers that a second runway at Gatwick should not be recommended and a full responses to the consultation questions are given below:

### **Q1. What conclusions, if any, do you draw in respect of the three shortlisted options**

Tunbridge Wells Borough Council represents 115,000 residents and has carefully considered the shortlisted options for additional airport capacity in the south east alongside the existing concerns of local residents who have been suffering from increased noise disturbance as a result of recent changes to the Gatwick flight paths between 2013 and 2014. The Council held a well attended public meeting on 7 January 2014 and agreed the following motion:

*This Council is opposed to any further expansion of Gatwick Airport, and the increased concentration of flight paths, and supports a significant reduction in the number of night flights.*

In response to the shortlisted options set out in the consultation the Council therefore wishes to confirm its view that the proposed second runway at Gatwick is unacceptable. The Council notes that its view of a second runway at Gatwick being unacceptable is not an isolated one. It is aware of a number of other local councils that take this view: including Kent County Council, Surrey County Council, West Sussex County Council, Tonbridge & Malling Borough Council, Mole Valley District Council, Crawley Borough Council, Horsham District Council as well as the High Weald Councils Aviation Action Group. Wealden District Council has also stated that it is unable to support the

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proposals in their current form. Kent, West Sussex and Surrey County Councillors represent over 3.354 million people. The Town Forum in Royal Tunbridge Wells that represents over 54 residents associations and groups also endorsed the Council's motion alongside a number of Parish Councils in the Borough e.g. Speldhurst and Bidborough. We therefore dispute the statement at paragraph 3.45 which states that *'Local opinion appears to be mixed with opposition from local community organisations and some local authorities, but support from others, subject to the provision of adequate environmental mitigation, and from regional business organisations.'* In our view local and regional opposition to the proposed expansion of Gatwick is widespread across the south east region including the authorities within which the airport is situated. The Council's view that the proposal for a second runway at Gatwick is unacceptable is based on the following reasons:

#### Uncertainty about flight path and related noise impacts

The Council is aware (through information provided by KCC) that alongside the Airports Commission's work on airport capacity, the UK's air traffic service provider (NATS), working with all London airports, as part of the London Airspace Management Programme (LAMP) is implementing the Civil Aviation Authority's (CAA) Future Airspace Strategy (FAS). Airspace changes have been proposed that meet the requirements of the FAS to deal with airspace congestion and increase capacity; improve safety; use technological developments to improve efficiency and reduce environmental impact; and implement the EU Single European Sky initiatives. Airspace changes must be implemented by 2020 and are based on Gatwick as a single runway airport. Alongside the proposed second runway at Gatwick there could be severe negative impacts on the Borough of Tunbridge Wells and neighbouring areas of West Kent. Between 2013 and 2014, there has already been a significant increase in overflight and aviation noise in West Kent as a result of changes in flight-paths that were not the subject of consultation locally and not acknowledged by Gatwick until very recently. The combination of these changes/potential changes, the proposed second runway and the approach taken to night-flights at Gatwick, threatens to impact heavily on the residents, local businesses, visitors and the High Weald Area of Outstanding Natural Beauty. Indeed, para 3.34 of the main consultation document acknowledges that *'there are areas around Gatwick that are rural and have high levels of tranquillity that will be adversely impacted by the new development at the airport'*.

#### Potential Economic Benefits

The negative impacts on the borough of the proposals are not balanced with any evidence of potential economic benefits. Located within the High Weald AONB, tourism is a vital component of the local economy and the Council seeks to provide support to the sector, successfully promoting Tunbridge Wells as a high quality visitor destination. Drawing together direct business turnover, supplier and income induced expenditure, and the additional expenditure spent

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on second homes and by friends and relatives, the total value of tourism activity in Tunbridge Wells in 2011 was estimated to have been around £241,258,000. This income to the local economy is estimated to have supported around 3,190 Full-Time Equivalent Jobs and 4,459 Actual Jobs (with the addition of seasonal and part-time employment). These jobs are sustained in a wide number of service sectors including retail, catering, travel and hospitality and thus beyond tourism businesses. The Office of National Statistics employment figure, drawn from the Annual Business Inquiry shows that an estimated 3,500 jobs in Tunbridge Wells are in tourism and tourism-related businesses. According to the ABI data, tourism-related jobs represent 7.2% of all employee jobs in Tunbridge Wells. (Source TSE Cambridge model – HS to check).

The Council has received feedback from a range of tourism businesses that are part of the Tunbridge Wells offer to visitors (in particular Hever Castle, Penshurst Place, Groombridge Place and Chiddingstone Castle) that the existing level of aircraft noise, due to recent flight-path changes, is already having a detrimental impact on their businesses. Any further increase in the levels of noise would lead to further negative impacts on the visitor economy and the possible closure of local attractions and/or accommodation establishments with related job losses.

On the other hand the Council has seen no evidence to suggest that there will be any benefits to the local economy of the proposed expansion at Gatwick. It is noted that the local authority areas of Tunbridge Wells, Tonbridge & Malling and Sevenoaks did not feature in the defined assessment area as set out in the document entitled Gatwick Second Runway Business Case and Sustainability Assessment. In paragraph 3.21 of the main consultation document there is reference made to 'providing potential increased employment in the immediate vicinity' of the airport and that the proposed growth 'could help foster development of the Gatwick Diamond'. The Council disputes the statement in paragraph 1.63 of the document Business Case and Sustainability Assessment document that '*Expansion of Gatwick airport could create further opportunities for growth within the 'Gatwick Diamond' which links Brighton, Tunbridge Wells and Croydon amongst others.*' Tunbridge Wells is not considered to be linked to the Gatwick Diamond as can be seen in the Gatwick Diamonds own Strategic Plan.

<http://www.gatwickdiamond.co.uk/media/6264/2013-16-gatwick-diamond-strategic-plan-june-2014.pdf>

Information on the potential economic benefits for our area was also requested directly from GAL following a recent presentation to the West Kent Chamber of Commerce in Tunbridge Wells. A document was received that amounted to less than 2 pages of A4 and was of very poor quality. The Council is extremely concerned at this response from GAL and the conclusion we have drawn from

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this is that GAL has nothing to offer West Kent in relation to economic benefits and indeed has little interest in our concerns (see also below).

KCC has stated that less than 1% of Gatwick's current workforce is from West Kent and therefore the residents and businesses of this area are suffering the negative impacts of being under the flight path with no benefits to mitigate this impact. Current employment levels in the borough are very high and the Council's policy is to support local jobs for local people particularly since the area suffers from traffic congestion as a result of commuting patterns at present.

It is worth noting that TWBC has received no correspondence from local businesses asking the Council to support the proposed expansion at Gatwick. Given that there are no proven local economic benefits, the Heathrow options provide greater positive impacts for the UK as a whole.

### Housing

From the comments made by other authorities relating to their local workforce and employment levels, it appears that any new jobs created are likely to be filled through in-migration which puts pressure on housing and other related social infrastructure. The Council considers that the challenge of providing additional housing to support the airport expansion has been significantly underestimated. Local authorities across the South East, including Tunbridge Wells Borough, are currently struggling with the challenge of planning for and delivering housing to meet their own housing needs, due to land availability and constraints of Green Belt, Areas of Outstanding Natural Beauty, flood risk and European designated sites. This pressure is only likely to increase due to under-provision of housing in the London Plan to serve London's future growth needs.

Following from this, there does not appear to have been any clear spatial assessment of how proposals for expansion of Gatwick will impact on housing need across the region and how many new homes local authorities may be expected to accommodate. The current residence of workers at Gatwick is not evenly spread and a pro-rata division of 130 dwellings across the 14 local authorities, used in the assessment of housing and social infrastructure, is unlikely to be reflected in reality.

Tunbridge Wells Borough is not included in the assessment of authorities for housing requirements. Yet the area is identified (wrongly we believe) in the strategic case as an area for further economic growth, along with Brighton, Croydon and other areas (para 1.63 Business Case and Sustainability Assessment). It is unclear how the assessments of economic growth and housing and social impacts have been integrated.

### Surface Access

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The Council has considerable reservations about the approach to surface access to an expanded airport at Gatwick. Gatwick Airport Ltd claims to be “road and rail ready for a second runway by 2021”. Gatwick’s surface access strategy for a second runway is heavily reliant on already planned, committed and delivered schemes for strategic road and rail access. These highway and rail schemes are being planned and implemented to help alleviate current levels of congestion and delay and to meet background growth. They do not take into account demand generated by more than a doubling of Gatwick’s size. Tunbridge Wells Borough and the wider West Kent area already have significant congestion issues on a number of routes at peak times – both in and out of the Borough. The Council is trying to address these in partnership with Kent County Council (our Highway Authority). Any additional congestion as a knock from growth at the airport would be a further constraint on the growth of the local economy.

The council is sceptical about the claims for the likely increase in public transport usage set out in para 3.29. These would seem to be very ambitious. Paragraphs 3.15-3.19 suggest that the airport will be used by passengers coming from outside London and the South East, for example good public transport links to Bedford, Cambridge and Peterborough are mentioned. This seems a strange claim for the proposal to be making when there are so many existing airports nearer to these locations than Gatwick including Heathrow, Birmingham, Luton and Stanstead. Indeed the document acknowledges that there would be long journey times by road from areas north of London. This calls into question Gatwick as a location for airport expansion within the South East.

#### GAL Communication

The Council is very disappointed by the approach of Gatwick Airport Ltd (GAL) in communicating information about changes in flight paths and the proposals for the second runway over the last few months. This has included

- a reluctance to admit that there had been any changes to flight paths (which was subsequently acknowledged);
- Minimal engagement with the Council including not sending a representative to our Full Council meeting on 7 January 2015 despite several invitations; and
- The very poor response to requests for information on the potential economic benefits for the local area (West Kent).

The above actions and inaction has led the residents of the borough of Tunbridge Wells to distrust Gatwick Airport’s Ltd. which is very unfortunate and

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would need to be remedied before any change in the Council's view could be considered. In our view Gatwick Airport has completely failed to demonstrate that it is a 'good neighbour' to the residents of Tunbridge Wells.

**Q2. Do you have suggestions for how the shortlisted options could be improved, i.e. their benefits enhanced or negative impacts mitigated**

Whilst reiterating that the Gatwick proposal is considered to be unacceptable the following should be considered in mitigation of negative impacts:

GAL's proposal for a new runway with fully independent operation provides the maximum amount of additional capacity in terms of aircraft movements and passengers. However, it also has the most detrimental environmental and noise impacts with no opportunity for respite from runway alternation. This operating arrangement could double the number of aircraft movements and would result in an unacceptable increase in aviation noise from the high frequency of over-flights. Some of the impact could be mitigated by considering an alternative operational model which allows respite for communities that experience continuous over-flight day and night.

The continuous over-flight of arriving aircraft into Gatwick causes significant detrimental impact for residents of West Kent and impacts on the tranquillity of the countryside, including Areas of Outstanding Natural Beauty (AONB) where the CAA discourages over-flight below 7,000ft. There needs to be better adherence to the DfT guidance to the CAA to avoid over-flight of AONB, where practical; and aircraft should also avoid flying over the major tourist attractions that are of significant national heritage value in West Kent.

In 2013/14 there have also been two consultations by NATS and GAL on proposed airspace changes for Gatwick as a single runway airport that need to be implemented by 2020. If implemented, this would result in the concentration of flight paths into a single precision arrivals route for the daytime and one alternative arrivals route for the night time before aircraft join the final approach to land. The consequence of this is that every single aircraft will fly directly overhead of the communities below the proposed new flight paths. The Council is aware that, as an alternative, KCC has proposed the use of precision navigation technology to devise multiple arrival and departure routes; which if alternated would provide the opportunity for predictable rotating respite so that the burden of over-flight is spread more equitably between communities. TWBC supports this suggested approach.

The current number of night-flights across West Kent is already unacceptable and is opposed by TWBC and KCC. The DfT should reduce the night movement limit at Gatwick to at least a level that is comparable with Heathrow.

Residents suffering from additional overflights have noted that there is a particular noise issue with the A319/A320 Airbus (mainly operated by Easyjet). It is suggested that action should be taken to ensure that the airline (whose planes account for about 50% of the traffic at Gatwick) addresses this issue at the earliest possible opportunity. The Council understands that equipment can be fitted to deal with this issue and is available now.

The Government should establish an Independent Noise Authority with statutory powers to address noise issues in relation to both existing and proposed airport operations. The majority of the board should not be drawn from the aviation industry.

**Q3. Do you have any comments on how the Commission has carried out its appraisal ?**

The Council is satisfied that the Commission has carried out its work openly. However, we have the following comments on the appraisal:

We would urge the Commission to complete its work on air quality prior to making a final recommendation to the Government. The Council accepts that this work is extremely complex but to not allow local residents to understand and comment on the results prior to a recommendation, would be a missed opportunity.

Paras 3.36-3.38 entitled 'People' covers issues relation to quality of life. However, this seems to address only a very small area around the airport. The residents of West Kent already consider the changes in flight paths introduced recently have significantly reduced their quality of life and the proposed second runway would only make this worse. The Council does not feel that this issue has been addressed adequately. The report does not sufficiently examine the impact of night time aircraft noise on wellbeing measures. It seems to assume there is no impact. This is not the experience of our residents and as a result this is an oversight that requires further work. The Council would also recommend that the impact of noise and night time noise on children and their educational attainment should be looked at (especially since night time noise leads to sleep deprivation). Any future runway should be designed with our children in mind and not to take this in account seems foolhardy. Please see further details in the attached Noise Appendix.

**Q4. In your view are there any relevant factors that have not been fully addressed by the Commission to date**

The Council considers that the issue of flight-paths and their impact has not been explored sufficiently given the level of concern expressed by residents over the last year to recent changes with only a single runway operating at Gatwick.

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Related to the issue of noise impacts, the negative impact of the proposals on the visitor economy within the High Weald AONB has not been adequately assessed.

Much emphasis is placed on the loss of Green Belt and Metropolitan Open Land in relation to the Heathrow options. However, the Council does not consider that the same level of emphasis has been made on the AONB in relation to the Gatwick proposals. AONB is a designated landscape and receives greater legal protection than Green Belt land.

More work could have been completed to examine the possibility of a new airport in the Thames estuary. The Council is uncertain that the three options presented offer a long term solution. A new hub airport could have been the answer. There is also existing capacity at many of the other airports across the UK.

Please see attached Noise Appendix for a further detailed response.

**Q5. Do you have any comments on how the Commission has carried out its appraisal of specific topics (as defined by the Commission's 16 appraisal modules), including methodology and results ?**

Please see attached Noise Appendix for a further detailed response.

**Q6. Do you have any comments on the Commission's sustainability assessments, including methodology and results ?**

The Council is concerned that the sustainability appraisal undertaken by the Commission relates mainly to the footprint of the proposals. It therefore does not address the wider impacts and in-combination effects that these major infrastructure projects will have on the south east and will not pick up impacts on our Borough, for example over-flying of the AONB.

**Q7. Do you have any comments on the Commission's business case including methodology and results ?**

The benefits of Gatwick expansion are £42-£177 billion in comparison to £112-£211 billion for Heathrow. The Gatwick option therefore provides the least benefit to the UK taking into account the greater costs of the Heathrow options.

The Council notes with interest that the two main airlines that use Gatwick (BA and Easyjet) have been critical of the proposal put forward by Gatwick. Both have publically questioned the option of a second runway at Gatwick and both have cited deep misgivings about the additional costs that would result from its expansion.

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There appears to be a discrepancy between GAL and the Commission in a number of issues that relate to the overall business case. These include: overall construction costs, the level of landing fees and approach to financing. The Council therefore questions the Commission's conclusion set out in paragraph 3.45 of the consultation document that the delivery risks associated with the scheme are relatively low.

**Q8. Do you have any other comments ?**

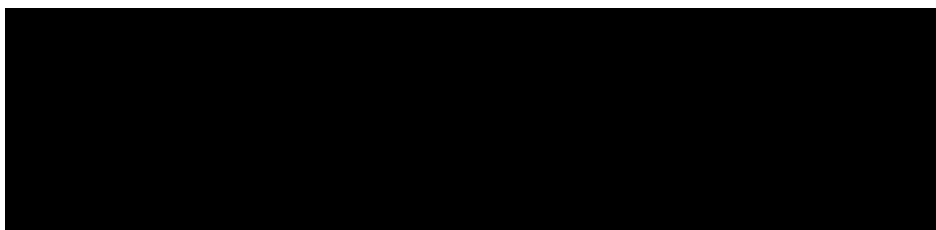
Tunbridge Wells Borough Council is opposed to the second runway at Gatwick:

The noise impacts from the current single runway configuration are already unacceptable to residents and businesses of the Borough and the proposal could lead to a doubling of these impacts. The proposals for surface access infrastructure are inadequate and there is an absence of evidence that there will be tangible economic benefits for West Kent.

The increase in over-flight and noise currently experienced in West Kent is unacceptable and there needs to be an immediate reduction in aviation noise disturbance across the area. Operational procedures should be put in place by GAL to provide respite for the communities that are suffering from continuous over-flight at busy times of the year.

In addition, the proposed airspace changes due to be implemented by 2020 with the concentration of flight paths and lack of suitable respite provision for arrival routes is unacceptable and is opposed by TWBC. GAL and NATS should redesign the airspace change proposal to include the use of multiple arrival and departure routes to provide predictable rotating respite and spread the burden of over-flight more equitably between communities.

Signed on behalf of Tunbridge Wells Borough Council



**Cllr David Jukes**  
Leader of the Council

**Cllr Paul Barrington-King**  
Cabinet Portfolio Holder for Sustainability

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## Noise Appendix

### Comments on the timing of the Commissions Consultation

There have been two important consultations that impact the current consultation,

- Night Flying Restrictions at Heathrow, Gatwick and Stansted; and
- The London Airspace Consultation (Stage 1 and Stage 2).

The Night Flying consultation was effectively a “holding operation” awaiting the results of the Airports Commission consultation. The London Airspace Consultation is critical to the assessment of any runways as it is impossible to assess the impact, particularly in the landing flight paths over Kent. The proposed routes are an integral and crucial part of the additional runway assessment and this information is not forthcoming. It is imperative that any assessment of additional runways encompasses a detailed route plan otherwise evaluation of noise for the approach over Kent would be impossible.

### Q1) What conclusions do you draw in respect to the Options?

#### Noise

All the carbon traded options result in significant increases in noise across the board. The airports should be prevented from carbon trading so that the numbers are based on actual carbon and not carbon obtained from organisations that are reducing carbon emissions. Having the airports restricted to the amount of carbon they can emit will be more positive for the environment and reduce noise.

The restrictions on aircraft policy are determined by:

- Not overflying new people;
- Reducing the numbers of those currently overflowed; and
- Splitting the benefit of aircraft improvements between the Aircraft companies and the public.

Adherence to these policies severely restricts the options of the commission and will skew the final decision to a less than optimal choice. This will be manifest in:

- Not overflying new people – a scheme that would massively reduce overall numbers of people affected could be undone by rigid adherence to this objective.
- Reducing numbers overflowed – this favours concentration of ATM's over less populated areas. It also reduces the options for respite routes as by its very nature it will affect increased numbers of people if there are one, two or more respite routes.

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- Splitting the benefit of aircraft between aircraft companies and the community. The current scheme does not give any benefit to the community as it uses the full “noise envelope” to allow for increased numbers of aircraft. The public does not benefit from the reductions in source aircraft noise as this is taken to allow significant numbers of additional flights. In fact the increased number of flights is highly likely to cause more disturbance than the predicted marginal improvements in flight noise. There should be a factor built into the calculation to compensate as the +3dB per doubling of ATMs does not adequately reflect the negligible reductions in noise levels from aircraft that can result in doubling of aircraft numbers.

There are mitigations that benefit all the options such as:

- Using increased daytime capacity to reduce or eliminate night flights – yet most of the assumptions assume no change or increased night flights. Any increase in capacity should be off-set by significant reductions in night flights – all but essential night traffic.
- Respite options – Respite options can increase the notional number of people affected by aircraft noise but it is inherently unfair to concentrate noise above reduced numbers of people when it is more equitable to spread the distribution of ATM over a number of routes.
- Quieter aircraft – The uptake of quieter aircraft is assumed at a certain level – however these are not guaranteed. Heathrow predicts that it will have a better balance of new improved aircraft over Gatwick. There should be impositions that compel the move towards better aircraft by targets and penalties to ensure the maximum benefit to communities.
- National benefits – The only national benefits in relation to noise appear to be from a Heathrow West Runway scheme.

The expansion of an airport should result in significantly reduced need to have night time flights so that all but essential traffic could be diverted to a more reasonable daytime slot. However, the Gatwick option and the Heathrow extended runway option show increases in both noise and air traffic movements at night. It would appear that even in this scenario the airport has the significant benefit of additional capacity whilst the community appears to have only increased burden from that expansion. This is hardly the equitable balance between the airports and the community that the government envisaged in its Aviation Policy Framework. The only option that reduces exposure to night time noise (as well as day time noise) is the Heathrow North West runway option.

There is only one option that appears to have a reduction on current noise levels – the Heathrow North West Runway. A comparison of Gatwick V Heathrow NW runway for current levels v future levels post additional capacity (approximately) shows the following:

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- A 250% increase in the number of people exposed to daytime  $> 54\text{dB}$   $L_{\text{Aeq},16\text{hr}}$
- A 200% increase in the number of people exposed to night-time  $>48\text{dB}$   $L_{\text{Aeq},8\text{hr}}$
- A 220 % increase in the number of people exposed to  $> 55\text{dB}$   $L_{\text{den}}$
- A 320% increase in the number of people exposed to daytime  $\text{N70}>50$
- A 155% increase in the number of people exposed to night-time  $\text{N60}>25$

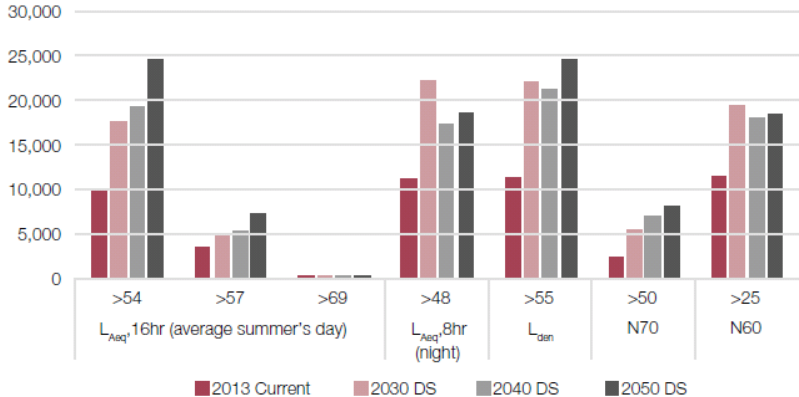
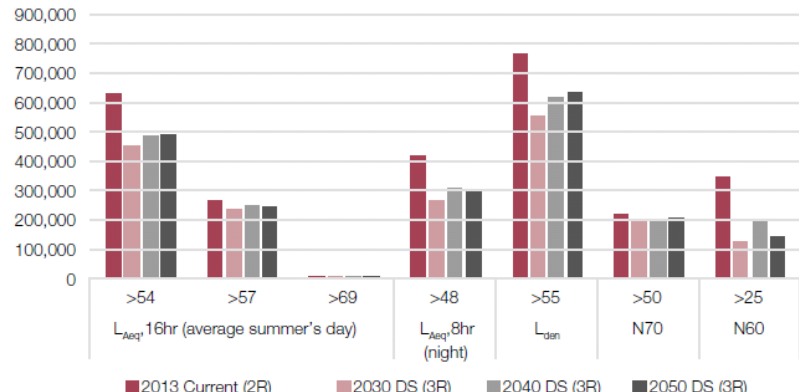
This is assessed by metrics that we believe considerably underestimate annoyance in the landing flight path areas over Kent. These massive increases should be ruling Gatwick out from consideration on environmental noise impact grounds alone.

This can be contrasted with the Heathrow Northwest Runway option:

- A 6.5% reduction in the number of people exposed to daytime  $> 54\text{dB}$   $L_{\text{Aeq},16\text{hr}}$  (-40k)
- A 30% reduction in the number of people exposed to night-time  $>48\text{dB}$   $L_{\text{Aeq},8\text{hr}}$  (-125k)
- A 17 % reduction in the number of people exposed to  $> 55\text{dB}$   $L_{\text{den}}$  (-129k)
- A 4% reduction in the number of people exposed to daytime  $\text{N70}>50$  (-8k)
- A 58% reduction in the number of people exposed to night-time  $\text{N60}>25$  (-199k)

These results are shown in the tables below for the carbon capped options (taken from the Commission's noise consultation documents). The massive reduction in night time exposure is highly significant as the night time is the most sensitive period of the day and should be weighted accordingly as the impacts of sleep disturbance are considerable.



| Scheme                    | Carbon Capped  |
|---------------------------|--|
| Gatwick                   | <p><b>Figure 9.8: Across all metrics, the scheme is forecast to impact more people in 2050 than Gatwick Airport does currently</b></p> <p>Gatwick Airport Second Runway, current day scenario versus do something in 2030, 2040 and 2050, low end forecast (assessment of need, carbon-capped)</p>   |
| Heathrow Northwest Runway | <p><b>Figure 9.8: Even by 2050 when the airport is operating at full capacity, the Commission's modelling predicts that the Heathrow North West Runway scheme will cause less noise pollution than currently</b></p> <p>Heathrow Airport North West Runway, current day scenario versus do something in 2030, 2040 and 2050, low end forecast (assessment of need, carbon-capped)</p>  |

The option for the Heathrow North West is however graded as “Significant Impact” because it takes into account new people exposed to these metric despite the overall reduction in actual numbers. This option, despite this, actually offers reductions in numbers of people affected and would represent the best noise option. This option is also described in the report as having a positive impact on the National noise situation with regard to a decrease in population exposure at a number of other airports and as having a “marked effect” on the night time noise nationally with a reduction of up to 125k fewer people affected in the 48dB  $L_{Aeq,8hr}$  metric.

## Q2 Do you have suggestions for how the options could be improved?

The options can be improved by ensuring that whichever airport is allocated an extra runway:

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- It is forced to reduce its night flights in compensation for the increased number of day time capacity. Strict limits should be imposed based upon “unavoidability” rather than convenience or cheaper slots. This might be done by ensuring that all night flights have to pay a premium rate for landing and take-offs. The expansion will present a unique opportunity to radically redress the issue of night time disturbance and its impact on sleep.
- Respite routes – there will be issues with total numbers of people affected but respite routes are the fairest method of sharing the annoyance and making the main routes slightly more tolerable than it would be without respite flights.
- The airport that receives the extra capacity should have to make its carbon emissions from actual reductions and targets and not be allowed to “carbon trade” as these options increase the number of aircraft and cause further noise problems demonstrated in all the noise projections for Carbon Capped v Carbon Traded.
- The airport that receives the additional capacity should have fixed minimum targets for the introduction of quieter aircraft of both current and future categories.

Additional charges for transgression or set landing/take-off fees should be added to community funding rather than for profit of the company.

The Appraisal Framework published by the Airports Commission (A.5) indicates that the object was “to minimise and where possible reduce noise impacts”. The data for Gatwick and for Heathrow Extended runway show considerable worsening of impacts where as the data for the Heathrow show reductions in levels and numbers. Thus Heathrow NW runway is the only proposal that meets the reduction of noise impacts.

### **Q3 Do you have comments on how the commission carried out the appraisal?**

#### **Noise Module**

The assessment of noise is based upon metrics that do not identify the noise issue correctly for areas away from the airport. Much of the research is based upon field studies or Laboratory studies for people around an airport. This is in an area of reasonably high background noise levels anyway and any research related to this will be based on comparing the noise levels from the airplanes based of the superimposition of aircraft noise on higher background noise levels.

There are flaws in the appraisal method as follows:

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- No comparison of source noise against existing background noise levels in assessing annoyance.
- Not factoring in the London Airspace Management Plan fully into the calculations as highly condensed aviation superhighways are likely to approach noise levels that could fall within the 48dB contour or higher
- Unfair balance between the benefit of quieter aircraft between the airport and the community.
- Fixation on higher noise levels relating to “highly annoyed” as a marker for inclusion of noise being environmentally significant. This has focused noise issues to the immediate environs of the airport to the exclusion of others.
- Failure to map the impact of noise further out into the landing approaches in Kent to properly document and evaluate the impact in this area.

#### **Q4 What are the relevant factors that have not been fully addressed by the commission?**

The key deficiency of research into the health effects is the lack of research into annoyance, particularly annoyance at noise levels experienced further out from the departure and more specifically the approach flight paths. It is agreed that studies into annoyance are indicating that attitudes towards aircraft are changing over time and that people are getting more annoyed at levels lower than previously and it is absolutely imperative that any assessment methods reflect this shift in increased sensitivity towards aircraft noise. It should be possible to project this trend through to the year 2050.

The World Health Organisation has indicated that “If negative effects on sleep are to be avoided the equivalent sound pressure level should not exceed 30 dBA indoors for continuous noise. If the noise is not continuous, sleep disturbance correlates best with  $L_{Amax}$  and effects have been observed at 45 dB or less. This is particularly true if the background level is low. Noise events exceeding 45 dBA should therefore be limited if possible.”

The World Health Organisation (WHO Guidelines for Community Noise.1999) has indicated that an  $L_{Aeq,8hr}$  of 30dB is needed for the restorative process of sleep. In addition, in its more recent report Night Noise Guidelines for Europe (NNG), it indicates that factors such as yearly average of night noise level outside at the facade ( $L_{night}$ , outside), while instantaneous effects such as sleep disturbance are better with the maximum level per event ( $L_{Amax}$ ), such as passage of a lorry, aeroplane or train. This has been echoed in subsequent WHO noise documents highlighting the effect of noise on sleep and health.

| Effect             |   | Indicator          | Threshold, dB |
|--------------------|---|--------------------|---------------|
| Biological effects | Change in cardiovascular activity   | *                  | *             |
|                    | EEG awakening   | $L_{Amax, inside}$ | 35            |
|                    | Motility, onset of motility   | $L_{Amax, inside}$ | 32            |
|                    | Changes in duration of various stages of sleep, in sleep structure and fragmentation of sleep | $L_{Amax, inside}$ | 35            |

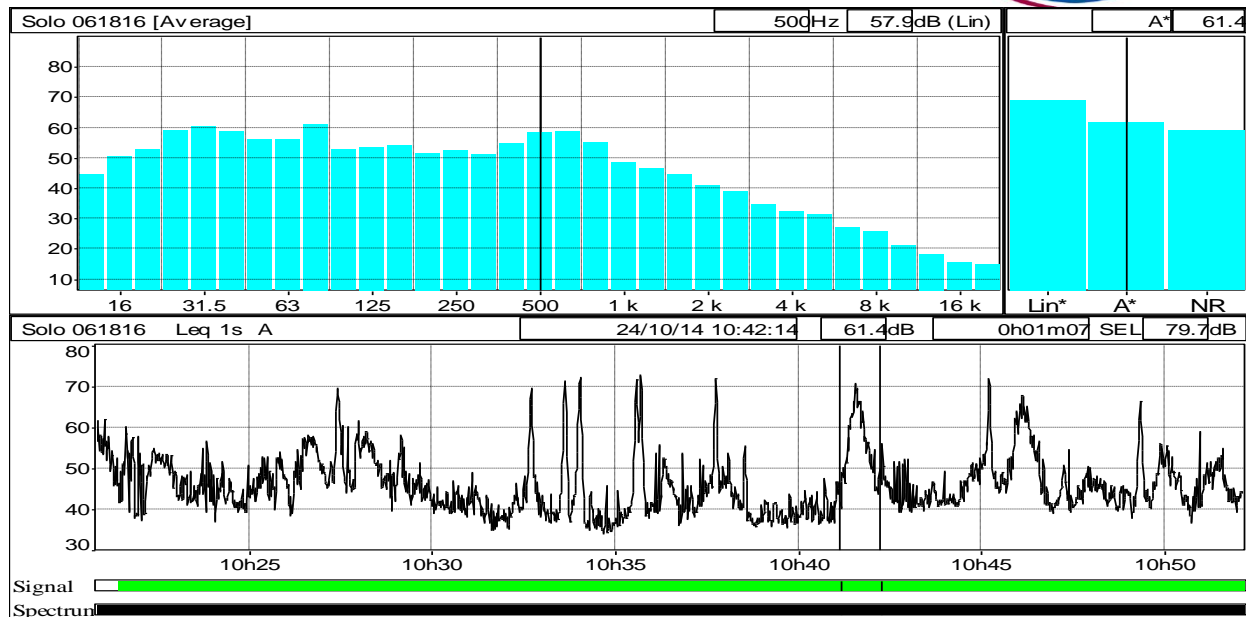
**Table from WHO Night Noise Guidelines for Europe.**

|                             |                                      |  |
|-----------------------------|--------------------------------------|--|
| Night noise guideline (NNG) | $L_{night, outside} = 40 \text{ dB}$ | <b>Table 5.5<br/>Recommended night noise<br/>guidelines for Europe</b> |
| Interim target (IT)         | $L_{night, outside} = 55 \text{ dB}$ |  |

**Table from WHO Night Noise Guidelines for Europe**

It does not seem logical to have a night noise guideline of  $L_{night, outside}$  40dB outside without the Airports Commission addressing the likelihood of this level being exceeded in areas that are not currently exceeded.

To illustrate this point a snapshot measurement (with a type 1 Third Octave Band Sound Level Meter) of aircraft noise in Rusthall showed that an individual aircraft flying at 3759ft (note aircraft will be lower and therefore noisier at other locations further along the descent path in areas such as Bidborough) had the following noise characteristics.



**Graph1 Average noise level of the aircraft over Rustall, Tunbridge Wells, Kent.**

The key data is shown in the table below

| Parameter                                   | Level  |
|---|--------|
| $L_{Aeq,67sec}$                             | 61.4dB |
| Sound Exposure Level<br>$L_{AE}/SEL/L_{AX}$ | 79.7dB |
| $L_{ASmax}$                                 | 69.0dB |

Table of Key data

Normally aircraft are spread out so that the long term average  $L_{Aeq,16hr}$  or  $L_{Aeq,8hr}$  would not be effected by a small number of overhead flights. But this will (and has changed) when the London Airspace Management comes to fruition with one main route and one night time respite route. In these instances there will be many over head flights. This will then affect residents significantly.

We calculate (from the data above) that just three flights of this magnitude will reach the WHO Night Noise Guideline (NNG) of  $L_{night,Outside}$  of 40dB and that six flights during the night would result in an  $L_{night,Outside}$  of 43dB both with  $L_{ASmax}$  of 69dB. These figures are significant because (according to WHO and BS8233 a partially open window gives about 10-15dB reduction in noise levels outside to inside). The 69dB  $L_{ASmax}$  would therefore be in the region of 54-59dB significantly above WHO recommendations. Note that the WHO Night Noise Guidelines indicated that windows would be open partially or fully for 75% of nights.

Flights based upon these levels during the day would result in levels of 50dB  $L_{Aeq,16hr}$  with just 62 flights and 55dB with 195 flights. Thus elevated noise levels

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of 50dB – 55dB and higher is possible when vectoring of aircraft along narrow corridors is implemented as a result of the London Airspace Management Plan consultation.

It is hard to imagine why any assessment of annoyance is based solely around the airport environs and does not extend to the arrival flight paths at least to around 4000-5000ft. The parameters used for annoyance by the Airports Commission are based upon higher levels of annoyance and do not truly reflect the annoyance felt by residents further along the flight path.

One of the underlying principles of the Governments Aviation Policy Framework (and echoed in Civil Aviation Authorities documents CAP 1129 Noise Envelopes and CAP 1165 Managing Aviation Noise) is that the benefits of future technological improvements should be shared between the airport and its local communities, thereby achieving a balance between growth and noise reduction. This is where the Commission's noise predictions fail to distribute the noise reductions fairly. The modelling has allowed total allowance of the benefit of the future technology to the airport with none being allocated to the community. All the reductions in aircraft noise are fully discounted as reductions to the noise envelope and completely offset against increasing numbers of aircraft on a 3dB reduction allowing a doubling of aircraft movements.

The Airports Commission's adherence to the reduction in the sound envelope from "quieter planes" is thus unfairly used to the disadvantage to the community. These minor improvements are being used to accommodate and offset future projections of aircraft numbers. It is the increase in numbers that is at the heart of the known phenomena of decreased tolerance to aircraft noise cited in many reports. It would be fairer to use loudness as a measure to balance the decrease in noise level with the increase in flight numbers. Under this loudness criterion if a noise is reduced or increases by 10dB its apparent loudness halves or doubles respectively. It would be better to use this factor to consider the impact of increases in aircraft numbers so that aircraft numbers can only double when there is a 10dB reduction rather than the current 3dB. Other assessments have used figures such as a 4.7dB per doubling but we believe that a 10dB per doubling would be a better and fairer distribution of improvements in aircraft noise between the industry and the community.

The research demonstrating increasing annoyance with passing time to aircraft noise would suggest that airlines should be forced to become quieter for the community without getting increased numbers of flights. To see real tangible improvements for residents the sharing of increased numbers would need to be done on a skewed basis so that the benefits are given to the residents not used to get more flights squeezed in to day or night time slots.

**Q5 Do you have comments on how the Commission carried out the appraisal of the specific topics (16 appraisal modules)?**

**Noise Assessments module 5**

The assessment does not fully consider the NATS proposals for the flights over Kent during the landing approaches for aircraft in relation to the Gatwick proposal. The increase and concentration of traffic has already attracted a considerable number of noise complaints being made to Tunbridge Wells Borough Council and direct to Gatwick Airport. It is inconceivable that this will not impact on the people of Kent yet there is no mention whatsoever of assessment of increases in noise levels due to this proposal. This coupled with a second runway will cause considerable annoyance to people by way of increased noise levels, and frequency of disturbance both being relative to low background noise levels in many of these areas.

The assessment by Jacobs identified the subjective response to noise as being “not only upon sound pressure levels and its frequency but also on its duration regularity and the time of day it occurs”. The Council believe that this is very much an incomplete list missing out on at least two critical factors – the number of incidents and the ambient noise level in the area where the subject is listening. British Standard BS4142 acknowledges that complaints from industry are more likely to give rise to complaints in low background areas and its assessment method is based upon the difference between the background and the specific noise source (with tonal penalties). Whilst aircraft noise is not exactly the same as industrial noise the principle is sound.

Annoyance is perhaps the most difficult aspect to evaluate as it is a subjective response to a noise stimulus. The Council would agree that the level of annoyance is based upon an interwoven relationship of many factors to give a holistic perception. We think the major considerations should have been:

- Noise exposure (probably based on absolute noise levels or relative noise levels such as actual noise level compared to background or ambient noise levels). This will be particularly relevant to areas further away for the airport and associated urban environments where the “aircraft free” background or residual noise levels are substantially lower. This would make aircraft noise that might be acceptable in a busy urban environment unacceptably intrusive in a more rural environment. It is vitally important to note that the same noise level can have different effects in different locations and this should be accounted for in any metric used to assess annoyance.
- The number of Events during a period that the listener is subjected to i.e. the ATM's.
- The tonal quality of the noise – the Airbus A320 causes more annoyance than an equally noisy aircraft that is missing its distinct vortex whine.

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The lack of steps to rectify this fixable problem is symptomatic of the lack of respect for the community shown by Gatwick Airport.

- The activity being undertaken at the time of the noise (relaxation or sleep will have a greater annoyance than working).

There will probably not be a perfect way of assessing the impact of aircraft noise as laboratory work tends to be more accurate whilst disengaging from real activities that also play a part. Surveys are subject to bias and inaccuracy and relate to areas close to the airport. However the general relationship trend of increased sensitivity is evident, to a greater or lesser extent, between the methods. This trend indicates that people are becoming more sensitive to aircraft noise. This fact is also highly significant and should be reflected in any metric that will equate noise levels and numbers of ANE's to annoyance. The ANASE study, despite its methodology being criticised, suggested that people were becoming more sensitive to numbers of aircraft movements rather than the noise levels from single movements. This is more in line with TWBC's anecdotal experience relating to complaints made to our Environmental Protection Team. This is also one of the major problems with any envelope system in that these could further exacerbate the problem by allowing extra flights to airlines where individual aeroplanes have marginal reductions in noise levels.

The assessment of monetisation of annoyance using the WHO Burden of Disease from Environmental Noise – Quantification of health life years lost in Europe. This is a very good document that tackles the issues of Disease but it is a bit lacking in relation to annoyance as it uses the percentage of “highly annoyed” as a gauge of annoyance. There is also a recent (November 2014) Defra document “Environmental Noise: Valuing impacts on sleep disturbance, annoyance, hypertension, productivity and quiet”. This works on levels down to  $L_{Aeq} 45dB$  values rather than the general  $L_{Aeq16hr} 55dB$  values even if it is only quantifying a monetary value for annoyance. Is this assessment being factored into the calculations for monetisation? The WHO document focuses on noise that is loud enough to cause disease whereas the DEFRA document also encompasses annoyance in the cost benefit analysis model.

There are even flaws with the assessment of health impacts being monetised. It may be possible to look at costs for more serious events with QALY's and DALY's but again smaller impacts on health that are much more widespread are not costed against in the Cost Benefit Analysis (CBA). It would be necessary to put a cost to the smaller and less quantifiable issues that will affect a large number of people for reductions in their wellbeing as a result of noise.

Similarly the disadvantage to children whose cognitive development is impaired by noise needs to be factored into any meaningful CBA – It is possible to establish the average salary of a university degree (it was part of the rationale by the Government for increasing University Fees) it would therefore be

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possible to calculate the impact of children exposed to noise who do not get to University and add this detriment to the CBA. It should also be possible to do job prediction for those that do not attain GCSE or GCE qualifications as well so that the full impact is accounted for in the analysis.

The key point is that all the costs should be given a value – just because it is sometimes difficult to do so should not preclude the necessity to be fully inclusive of all the dis-benefits.

The view of Tunbridge Wells Borough Council is that there needs to be system that takes more account of the “precautionary principle” to both health and annoyance factors. This would avoid the confusion and uncertainty over the results of different studies being manipulated or skewed to allow a tendency to accept higher levels of noise because there was debate over the findings of results. Our view is that Cost Benefit Analysis should be developed more to calculate all the negative impacts as well as the positive impacts. We also have concerns that the focus on “highly annoyed” as a category does a massive disservice to the vast majority of people who are disturbed by aircraft noise at lower noise levels than those experienced in the immediate vicinity of the airports. Focus on this category will do nothing to deal with the issues further out along the landing flight paths.

Jacobs used the following Metrics in assessing the impacts,

$L_{Aeq18hrs}$  54dB to >72dB

$L_{Aeq8hrs}$  48dB to >72dB

$L_{den}$  55dB to >75dB

N70>20 to >500 (for daytime noise)

N60>25 to >500

It is good to see that there were  $L_{Aeq18hrs}$  54dB and  $L_{Aeq8hrs}$  48dB contours rather than just the standard 57dB contours. We note that there are no contours affecting the areas such as Sevenoaks, Tonbridge and Tunbridge Wells even though these areas have significant numbers of complaints particularly recently. This indicates an elevated level of annoyance. We feel that there should be some indicator of the impact on these areas as it would appear at face value that the Commission does not feel that any of the proposals will have any negative effects on Kent whatsoever. The total lack of any noise contour over Kent gives the impression that the Commission do not believe that there are any noise issues in this area. It would have been useful to have modelled this so that these areas could see what change there would be instead of having no information whatsoever on any potential change in noise levels in Kent. Failure to do this has resulted in there not even being a bench mark with which to compare the effect of any proposal in this area adequately. We feel that it would have been useful to have gone down to 40-45dB as these are the levels that would elevate the noise levels in bedrooms beyond 30dB noise levels with windows open for ventilation.

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The  $L_{den}$  55dB level is better than the  $L_{Aeq}$  metric as it rightly imposes a penalty on evening and night noise. However the 55dB metric is again far too high to have a meaningful annoyance correlation for people exposed to lower levels of noise but in an area of lower ambient or background noise levels.

The WHO Night Noise Guidelines states that external noise with levels of 40 to 55dB: “Adverse health effects are observed among the exposed population. Many people have to adapt their lives to cope with the noise at night. Vulnerable groups are more severely affected.” It goes on to say that “Above 55 dB the situation is considered increasingly dangerous for public health. Adverse health effects occur frequently, a sizeable proportion of the population is highly annoyed and sleep-disturbed. There is evidence that the risk of cardiovascular disease increases.” The >40dB levels reflects the situation in Kent whilst the >55dB reflects the situation in the vicinity of the airports.

The information concerning a level of  $L_{night}$  of 40-42dB (WHO Night Noise Guidelines) indicates that these levels are the onset of problems. Therefore, having data down to these levels would have been crucial for assessing the true impact of the proposals. These would have seen increasing contours in Kent as a result of the proposal for the Gatwick 2<sup>nd</sup> Runway particularly when paired with the inevitable London Airspace Management Programme with its highly vectored and condensed arrival flight paths.

The use of N70 and N60 (Number above counts) have also been pitched too high to deal with issues that are likely to correlate with the perception of people in Kent. This situation is made worse by adding in very high numbers of exceedences such as >25. For example the N60 is based upon Australian data where a single noise event from a single aircraft that exceeds an external  $L_{ASmax}$  60dB is counted as an event. The Australian model assumes that 10dB is attenuated by the fabric of the building with open windows seeking to protect the sleeping person from noise levels of  $L_{ASmax}$  50dB in their bedroom. This is based upon an Australian standard but it could be adapted to meet with the WHO recommendation of  $L_{AFmax}$  of 45dB (LAF is usually higher than the LAS method adopted for aircraft so its low rating weighting already makes the aircraft noise a little lower than it would have done under the fast weighting). Ignoring this fact if we tried to apply the number above to a World Health Organisation indication that the  $L_{Amax}$  should not exceed 45dB but it does not specify that a number of occasions. To compensate the level of reduction taken in WHO through an open window is 15dB so outside the  $L_{Amax}$  level should be N60 but the number should be much lower than 25 times per night. A snapshot measurement (see earlier) indicated that  $L_{Amax}$  value of 69dB was recorded in Rusthall from an aircraft at 3750ft approx. (another exceeded 65dB within 5 minutes). The Council would suggest that the “number above” should be substantially lower say 10 so that N60 >10 contours should be plotted. This lower figure would indicate disturbances by fewer aircraft during the night and

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would be more consistent with WHO recommendations. Do the current predictions for N60 contours include the LAMP concentration – we do not believe that they do otherwise the contours would stretch further than the current contour maps show.

If the target level in a bedroom of 30dB were to be deemed to be the minimum standard (in Tunbridge Wells levels of around 20dB are not uncommon in bedrooms) levels outside should not exceed 15dB above this so  $L_{Aeq,8hr}$  of 45dB should be the minimum starting point of any curves.

The concept of noise envelopes and sharing the balance of technological improvements has been mentioned earlier but this is an issue that cross cuts many areas and needs to be considered again in the context of assessment methods. We believe that the projections of noise for the assessment of impact were flawed in that they did not take account of a fair balance in reductions in aircraft noise between the operators and the community. This will have underplayed the impact of the noise, to which people are exposed, and therefore increase annoyance.

## **General**

The mass of information on noise and health and disturbance distributed with the consultation is daunting for most people. The period of time for the consultation is too short particularly with a major holiday period falling in the middle of it.