

## Gatwick Airport FASI South Airspace Change Proposal Gatwick Comprehensive List of Options Feedback Form

### Background

As part of Stage 2 of an Airspace Change, we are required to develop options that aim to meet our statement of need and align with the design principles developed with Stakeholders during Stage 1B.

On the 15<sup>th</sup>, 17<sup>th</sup> and 23<sup>rd</sup> of February 2022, Gatwick Airport Limited (we or GAL) invited stakeholders to attend a workshop where we presented our methodology and our comprehensive list of options. Following the workshop on the 23<sup>rd</sup>, an information pack including the presentation slides and the comprehensive list was circulated to all stakeholders, including those who could not attend the workshops sessions.

Please use the below feedback form to answer our engagement questions by **Friday 25<sup>th</sup> March 2022**. Please email the form to [LGWairspace.FASIS@gatwickairport.com](mailto:LGWairspace.FASIS@gatwickairport.com)

If you have any questions regarding our presentation or the comprehensive list of options, please get in touch with us via the above email address.

### Feedback Form – Part 1: Stakeholder Details

**Name**

**Name of Organisation**

Gatwick Area Conservation Campaign (GACC)

**Did you attend one of the workshop sessions?**

15<sup>th</sup> February, 2022

### Feedback Form – Part 2: Comprehensive List of Options

**1. Is the list of options sufficiently comprehensive (is anything missing)?**

No

If no, please explain your answer:

As we understand it, the options presented have been driven by a narrow set of factors: total population overflow, number of people newly overflowed and overflight of Areas of Outstanding Natural Beauty. In order that we can better understand the team's methodology it would be helpful if the project team could explain how these factors have been prioritised against each other as we believe the outcomes would vary considerably depending on the prioritisation applied. We would also welcome an insight into what dictated the prioritisation applied – government policy/guidance, project team choice. Although these options may be viable on the basis of the limited analysis carried out to date, they do not represent a truly "comprehensive" list of options. We would therefore encourage the project team to develop a suite of decision-making factors against which the full universe of route options can be benchmarked thus delivering a truly comprehensive list of viable options for further analysis and optimisation. With that in mind, GACC would wish to see the following factors being part of this process:

1. **Historic patterns of dispersal.** As people historically overflown are likely to be more accustomed to aircraft noise and therefore not adversely impacted to the same extent as those newly overflown, we believe that the starting point for determining potential route options should be the historic patterns of dispersal.
2. **Health impacts of noise.** Exposure to aircraft noise is associated with a range of health responses including stress, sleep disturbance and annoyance. Long-term exposure is associated with increased risk of high blood pressure, heart disease, heart attack, stroke, dementia and impairment of learning in children. There is also evidence to suggest that aircraft noise may also lead to long-term mental health issues. A summary of evidence is in the AEF paper here: <https://www.aef.org.uk/uploads/Aircraft-Noise-and-Public-Health-the-evidence-is-loud-and-clear-final-reportONLINE.pdf>.

The World Health Organisation strongly recommends reducing aircraft noise levels to below 45 dB *L*<sub>den.</sub>, as aircraft noise above this level is associated with adverse health effects. For night noise exposure, the WHO strongly recommends reducing aircraft noise levels to below 40 dB *L*<sub>night.</sub>, as night-time aircraft noise above this level is associated with adverse effects on sleep. Gatwick does not produce noise contour maps down to these levels, but they extend many miles either side of the airport, covering 100s of sq km and 10s of thousands of people.

As stated above there is a clear and long understood relationship between actual plane noise and health, but it is now acknowledged that health effects are also being determined by non-acoustic factors. Non acoustic factors such as individual perceptions of fairness, individual coping capacities and individual noise sensitivity will all play a key role in determining responses and must therefore be fully considered using appropriate metrics to accurately capture “total adverse effects”.

3. **Number of people impacted.** Different aircraft dispersal options will affect different numbers of people. For example, a flight path over a town would, other things being equal, be likely to impact more people than a flight path over countryside (although perhaps less severely – see below). Some airports (but not Gatwick) are able to route some flights over areas that are entirely uninhabited, for example the sea or a river estuary. There might, of course, be other reasons not to fly over those areas.
4. **Severity of impact.** In addition to the number of people impacted, it is important to consider the severity of impact. In general, ambient noise in cities and large towns is higher than in countryside, meaning that aircraft noise is likely to have less impact in cities/towns. However, there are exceptions to this in both areas. Land height can also have an impact on noise.
5. **“Fairness”:** The Gatwick area community noise groups have historically taken the view that aircraft noise should be dispersed rather than concentrated on the grounds that it is fairer for its impacts to be shared rather than imposed on one group of people. However, we are also mindful that views on what dispersal means in practice, particularly when satellite navigation technology is introduced, are likely to vary.
6. **Frequency of overflight.** With the airport already looking to expand and with the deployment of new technologies almost certainly leading to greater concentration, it is vital that changes to frequency of overflight are fully captured using appropriate metrics (see Point 7 of question 3 below) as part of the wider process to determine the total adverse effects of all potential flight path options.
7. **Vertical profile of aircraft.** Not surprisingly the focus has been on the lateral distribution of flight paths. However, we also feel that as part of this once in a generation airspace modernisation project the vertical profile of aircraft also requires analysis. For departures we would wish to see the likely impact of a Continuous Climb Operations (CCO) protocol being fully considered whilst, from an arrival perspective, we would wish to see flight paths deployed which would facilitate increased arrival altitudes.

## 2. Is the list of options developed in line with the design principles?

	Design Principle (DP)	Have we developed the options in alignment with this DP?	If no, please explain your answer
1.	Safety by Design	Yes	
2.	Enhanced Navigation Standards	Yes	
3.	Limit Adverse Noise Effects	No	The developed options may be in line with the design principles, however per response to Q1, there are other significant factors which must be considered to create a benchmark fully capable of determining which options best meet the design principles.
4.	Time Based arrival Operations	Yes	
5.	Resilience Built in	Don't Know	Insufficient information to determine whether options will meet this design principle
6.	Optimise use of aircraft capabilities	Don't Know	Insufficient information to determine whether options will meet this design principle
7.	Long Term Predictability & Adaptability	Don't Know	Insufficient information to determine whether options will meet this design principle
8.	Deconfliction by Design	No	As the team have confirmed in their presentation pack "we haven't considered connectivity with the upper airspace network, other airports and how the departure options and arrival options might interact"
9.	Locally Tailored Designs	Yes	

## 3. Are there any other considerations that we should take into account regarding the development of a comprehensive list of options for the ACP?

Yes

If yes, please explain your answer:

As part of the FASI team's approach to the development of a comprehensive list of options capable of delivering effective noise dispersal, GACC would wish the following general principles adopted:

- Noise reduction obligation:** The aviation industry should be required to ensure that all safe and reasonably practical measures to reduce noise emissions, exposure and impacts are expeditiously implemented.
- Balance:** A fair balance should be struck between the interests of the aviation industry and people adversely affected by its operations, including that growth is equitably and proportionately balanced by reductions in noise and other environmental impacts.
- Capacity/noise trade off:** Reduction in airport capacity should not be a reason to reject dispersal options that would reduce the noise burden imposed on communities.
- Night flights:** Flights should be banned at night, for a full eight-hour period.
- Areas of Outstanding Natural Beauty:** airspace routes below 7,000 feet should seek to avoid flying over Areas of Outstanding Natural Beauty (AONB) and National Parks.

6. **Total impacts:** Account should be taken of all routes and aircraft noise that affects an area (rather than considering individual flight paths separately).
7. **Measurement:** Aircraft noise should be measured and reported using metrics that fully reflect their impact on people. Both average noise and noise event frequency (N>) metrics should be used on all occasions and should be assigned equal weight in all circumstances. We also believe that a pure ATM metric should be used to take full account of the frequency of overflight that's likely to arise as PBN technology is deployed. Likewise, the introduction of complimentary metrics such as Intermittency Ratio, which is of particular relevance for night noise should be considered. Noise measurement and reporting should cover all geographic areas with noise levels above the limits recommended by the World Health Organisation.

We would also suggest that, in most circumstances, noise should be dispersed within areas that have historically been impacted by aircraft and that the target disposition of traffic should take account of historical circumstances, both before and after 2013. Furthermore, new areas should not be overflown and material increases in concentration within areas previously overflown should be avoided.

However, if air traffic is credibly projected to increase both materially and to the point where currently impacted communities would suffer noise above the limits recommended by the WHO (including increases in noise for communities that are already above those limits), other options should be considered. Those options should include flying over new areas. In these circumstances, a full impact assessment should be carried out, there should be full consultation with all impacted and potentially impacted communities and the appropriate statutory airspace change process should be followed.

Given the sensitivities associated with flying over new areas we would also suggest that a clear definition of "newly overflown" is required. With historic dispersal driven by ATC vectoring, with changes to the ILS join (2013 ILS minimum join changed from 7nm to 10nm) and with the drop in volumes due to the pandemic currently allowing aircraft to be routed closer to the runway, it is currently difficult to confirm, with precision, which communities should be considered newly overflown. We would certainly suggest that the project team's decision to use the 2019 overflight data is far too narrow a definition.

Any change to existing routes should require a full CAA Airspace Change process. This should include quantified consideration of all route options (both concentration and dispersal) and consultation with all impacted and potentially impacted communities. Airspace change processes must recognise that significant change to numbers of ATMs and/or fleet mix and/or times of day/night may have significant community impacts. The process should incorporate properly designed and executed baseline noise assessments and regular post implementation reviews (say after 1, 3, 6, and 10 years or until a successor ACP) which assess actual noise reduction outcomes against the baseline, taking account of subsequent technology and other change, with powers to require remedial action, including the implementation of operating restrictions.

Finally, the aviation industry should be required to pay all external costs its activities impose on society at large. This should include compensation for loss of property value caused by airspace changes or increases in the use made of airspace.