



HACAN Response to Draft Airspace Modernisation Strategy 2022 – 2040

4 April 2022

General

HACAN recognise that airspace modernisation has the potential to deliver some noise benefits but it remains unclear how this is reconciled with the industry ambitions for growth. We believe that currently the AMS seeks to facilitate growth in airspace capacity with insufficient regard to the significant health and environmental impact of airspace changes.

The Government does not possess reliable evidence base on which to assess the impacts on health and the environment arising from the scale and size of the changes envisaged. This should be addressed in the next iteration of the AMS masterplan.

It is surprising that the strategy does not explain how the CAA will address aviation's adverse environmental impacts in its decision making. The strategy should set out precisely how noise, emissions and any other community benefits asserted in airspace change proposals will be monitored and their delivery enforced over time. Overflowed communities already have limited trust that modernisation will deliver the benefits promised and it is vital that clarity over how promises made will be kept and enforced is crucial to the success of the programme.

There has also been no attempt made at placing a number on the size of the potential reduction, either by flight path or cumulatively. Indeed, it is quite plausible that many will communities will experience an increase in noise. This should be set out clearly and transparently in the next iteration of the masterplan to help aid understanding and increase awareness of the risks of trade-offs between existing and new flight paths.

We would strongly oppose any approach that would deliver immediate benefits to the aviation industry that was not accompanied by immediate reductions in noise for local communities.

1. Do you agree with our overall approach in the refreshed Airspace Modernisation Strategy (AMS)?

No as there still appear to be some fundamental gaps in the refreshed AMS in relation to the environmental and community impacts of airspace changes.

Noise

Rather than simple seeking to managing aviation noise the AMS should be highlighting opportunities to reduce aviation noise.



It is not clear how the AMS will achieve the goal of policy to *“limit and, where possible, reduce the number of people in the UK significantly affected by adverse impacts from aircraft noise.”* There has been no baseline set of the total number of people currently adversely affected by noise nor any estimation of how the strategy will ensure this number is reduced.

The strategy does not set out any principles or targets for how noise emissions should be reduced. As the CAA recognises, the AMS may facilitate additional growth in flight numbers. It is not clear how noise reductions can be achieved alongside such increases.

Baseline noise measurements should be included so that communities can compare the current situation to the change being proposed. This should be in an understandable format. The desire to enhance the capacity of the airspace means that any possible reductions in noise may well be wiped out by the increase in traffic. Without the key statistics it will be difficult to make any informed judgement on the merits or disbenefits of an airspace change proposal.

Rather than aiming for the AMS to deliver reductions in average noise level per flight the focus should be on the optimisation of flight paths to reduce noise impacts, particularly for those communities already adversely impacted.

It is not clear how different proposals for routes be weighted. Will routes that concentrate noise over already overflowed communities (to keep the total number of people impacted to a minimum) be preferred to possible multiple routes that expose more people overall to noise but to a lesser extent?

HACAN would support the equitable distribution of noise with protected periods of respite. Consequently, we would like to see greater consideration in the strategy as to how the number of flights is distributed, and an analysis of the impacts of the different options on existing overflowed communities and those potentially newly impacted.

The AMS makes no reference to any objective research into the impacts of highly concentrated flight paths. International experience shows that wherever concentrated flight paths have been introduced over densely populated areas, this has met with overwhelming opposition, and legal challenges.

There is also no consideration in the refreshed AMS of the cumulative noise impacts on communities overflowed by more than one airport.

Air Pollution

There remains an inconsistency in references to the level at which aircraft emissions are unlikely to have a significant impact on local air quality. The consultation document refers to the ICAP Document 9889 as stating that this is 1,000 feet, however it appears that the document actually states that the mixing layer is above 1,000 metres which is a significant difference. Interestingly, references to 1,000 feet limits appear to be constrained to NO₂ emissions only.



Despite requests from communities and environmentalists for clarity on this position, we understand that it remains uncertain which height the impacts of airspace changes will be measured from.

This needs to be defined in the strategy if communities are going to be able to understand the AQ impacts of proposed airspace changes. This is also surely vital for airports to be aware of now in considering the range of their options during the design phase.

There also needs to be consideration given to the impact of UFPs given the increasing body of evidence that shows the harm this type of emissions have on public health.

Health

The CAA should assess the adequacy of the way in which noise annoyance and health impacts are assessed. This is vital to ensuring local communities are provided with a comprehensive understanding of the impacts an ACP will have on their health.

Clarification is required of how the assessment of health impacts is factored into ACPs, for example, what impact the creation of a respite route could have in terms of reducing the total adverse health of the ACP.

In particular, HACAN is concerned about the physical and mental health impact of concentrated flight paths on overflown communities. We suggest that a robust assessment should be undertaken, including engagement with stakeholders on the terms of reference, to fully understand the range of impacts of concentration.

It is disappointing to see no mention at all made in the AMS of the impact of aircraft noise on mental health. Aircraft noise has a particularly negative impact on those people with serious mental health illness (SMI).

Some mental illness may be triggered or exacerbated by uncontrollable noise. It is known that irritation (unresolved annoyance) is an indicator of potential or actual relapse in some mental illnesses such as depression. Moreover, anxiety about being unable to stop or 'shut out' the source of the toxic irritation only serves to fuel a downward loop of despair and ill health.

The need to feel safe in one's home is a basic human right and is especially crucial for those people with (SMI) who are particularly vulnerable to noise. Indeed, Public Health England and the Equality Commission have publicly stated the centrality of this to MH equality and good mental health generally.

2. Have we captured the drivers for change adequately in Part 1, Chapter 2?



No. Reducing noise impacts should be a key driver for the design of airspace.

There are huge uncertainties around the rate of recovery of the aviation sector from the pandemic, the long-term impact on business travel and the industry desire for growth which appears incompatible with UK efforts at decarbonisation.

There is also a significant risk that should be identified as a driver: that of the failure of technological innovation to be delivered at the pace or scale required to support decarbonisation of aviation.

3. Have we identified the right stakeholder groups in Part 1, Chapter 2?

The other key stakeholder group that has not been referenced is communities that will be impacted by aircraft noise as a result of the AMS programme. This is naturally difficult to define given that airports like Heathrow are only in the design phase of their ACP, however there are potentially hundreds of thousands of people who could be newly overflowed and adversely impacted. This challenge needs to be recognised in the strategy and steps taken to begin to identify these communities.

Another missing group is owners and/or managers of legally protected open spaces and buildings that are and/or will be affected by flight paths, such as the Royal Parks. Aircraft noise and potentially aircraft emissions significantly impact their visitors who come for enjoyment and tranquillity and their biodiversity and landscapes.

Further, there is little evidence that the engagement that has taken place to date has significantly influenced the approach adopted by either ACOG or the individual airports.

4. What are your views on the nine delivery 'elements'?

The nine delivery elements are completely focused on delivering the purported benefits of the AMS for the aviation industry. Environmental sustainability must be considered as a separate delivery element to ensure that it is afforded equal weight in any trade-offs between industry and community benefits.

There is also no reference to ensure that aircraft follow operational best practice that results in the lowest possible environmental impact. It is no benefit to overflowed communities having individually quieter aircraft if they are not flown in a manner that minimises their noise footprint.

In terms of the first element and potential use of PBN, there remains significant concern amongst communities around Heathrow that this is unlikely to deliver any reduction in noise emissions. HACAN is aware that where PBN has been introduced globally it has had the greatest success at airports where a significant proportion of the flight paths are over the sea.



This is not the case at Heathrow where flight paths cross over communities which are highly densely populated. Thus, it will not be possible to concentrate a flight path that avoids flying over people.

There has been some discussion of using multiple, rotating flight paths and switching these to provide some period of respite. However, there remain concerns about what valuable respite actually looks like as this has still not been properly defined (although HACAN is conscious that the CAA is working on this currently). We also understand that there are limits to how much data (and thus how many routes) individual aircraft's flight management systems are able to handle. It would be useful if the next iteration of the masterplan were able to shed some light on these technological limitations.

5. Part 3 of the AMS will cover who is responsible for deploying the delivery 'elements' and related activities, and how. At this early stage, what are your views on any requirements we should have for those tasked with the deployment of those elements and activities?

In HACAN's view the loss of ICCAN to assist with the delivery of noise reduction is regrettable. Consequently, the CAA's new Environmental Panel should be strengthened by being placed on a statutory footing, completely independent from the CAA, be appropriately resourced and empowered to monitor implementation of airspace proposals. This should also include powers of enforcement and the ability to place operational restrictions on airports who fail to deliver promised noise or emissions reductions.

6. How effective has the AMS governance structure been, for example in terms of overseeing delivery of the strategy, stakeholder engagement or transparency?

There remains a substantial challenge for the AMS governance structure to gain the trust of local communities. This has been exacerbated by the abolition of ICCAN which has left a significant gap in accountability for environmental and health impacts.

There also been multiple requests made at both the Airspace Strategy Board and the Aviation Noise Engagement Group by community representatives for the AMS governance structure to address a number of issues around the understanding the impacts of airspace changes on local communities. These include:

- Technology paper on benefits and limitations of AMS – what is possible and what is not.
- What are the Benefits/Disadvantages of PBN?
- What are the health impacts of concentrated flight paths?
- What is the value of Respite and how is respite defined?



- Government response to WHO 2018 guidelines.

There is a reference in the refreshed AMS to the establishment of an Airspace Technology Delivery Group which was first mooted in 2018. Has this group ever been established? If so there have been no visible outputs from its works shared with local communities.

To the best of our knowledge the CAA Community Discussion Forum has also not met since at least 2019 and has certainly not made any public communications.

7. The refreshed strategy is broader in scope. What changes to governance are needed to deliver the broader strategy, including future approaches to funding?

HACAN remain concerned that ACOG is an industry-only body with no community or environmental representatives on their board.

There is an absence of accountability in both the AMS governance structure and the wider UK aviation sector. In particular, it is felt that the governance structures have limited understanding in addressing quality of life impacts. Nor are many of the organisations involved properly equipped to address the environmental challenges of airspace changes.

Government could impose new statutory duties on NATS and the CAA to reduce, minimise or mitigate significant adverse noise impacts of aviation.

The CAA should be specifically empowered to approve airspace changes subject to regularly reviewable noise and/or emissions conditions, and to monitor and enforce those conditions.

The Government could also empower the new CAA Environmental Panel by placing it on a statutory footing and making it the single point of authority with responsibility for aircraft noise.

There should also be a strengthened role for local authorities in the governance system that ensures that the impact on communities is properly considered.

It is also important that any benefits delivered by an ACP are not entirely consumed by the industry but are shared equally with local communities.

Government should ensure that budgets are made available for independent technical and other professional advice to all communities where proposed airspace changes may have impacts on them. This should be funded by the industry in line with the polluter pays principle.