

Transport Select Committee – Major transport infrastructure inquiry: Civil Aviation Authority response

Introduction

1. The UK Civil Aviation Authority (CAA) welcomes the Transport Select Committee's inquiry into the appraisal and delivery of major transport infrastructure projects in the UK.
2. As the independent aviation regulator, we have a number of responsibilities relating to major aviation infrastructure projects in the UK. These include our duties under the Transport Act 2000 with regards to economic regulation of airports and air navigation service providers with significant market power, and our role as a statutory consultee in the Development Consent Order (DCO) process of major UK airport proposals.
3. Our response to this inquiry will focus on another area for which we have a remit, airspace modernisation, which is deemed a key programme in the Government's National Infrastructure Strategy.
4. In this submission we outline:
 - What is airspace modernisation and why it is a National Infrastructure Project
 - The benefits of airspace modernisation to the UK
 - The impact of the COVID-19 pandemic and the challenges we are now facing with the current framework to be able to deliver on the benefits of airspace modernisation
 - What changes we could consider to the framework to address the current operating environment
 - The importance of central funding in driving projects providing nationally strategic benefits, such as airspace modernisation

Transport infrastructure strategy and priorities

5. The UK's airspace is an essential, but invisible, part of its national transport infrastructure and its modernisation is rightly included in the Government's National Infrastructure Strategy.
6. The CAA and the Department for Transport (DfT) are working together to act as co-sponsors for the modernisation of the UK's airspace. The overall objective for this modernisation is to deliver quicker, quieter and cleaner journeys and more capacity for the benefit of those who use and are affected by UK airspace.

7. Modernising airspace means updating its structural design, changing how the systems on which it runs work. It is also about using new technology.
8. Upgrading airspace is essential to open up airspace for all users, including General Aviation flyers and new types of aircraft such as drones, to provide the opportunity for reducing noise and to increase capacity for the aviation industry to reduce traffic delays when demand returns.
9. The emissions savings that modernisation can deliver are a key component of the UK's commitment to reach net zero by 2050. NATS' feasibility study¹ into modernisation estimates savings of up to 10-20% on fuel burn and CO2 emissions in the South East of England, where the airspace is most congested. The aviation industry's decarbonisation roadmap² also suggests that air traffic management and operational improvements are likely to reduce CO2 emissions from UK aviation by around 4.6% by 2050 relative to 2016, with the potential for additional savings from future innovations.
10. The aviation industry is responsible for delivering airspace modernisation through a number of different initiatives which are described in the CAA's Airspace Modernisation Strategy (AMS).³
11. The roles and responsibilities for airspace modernisation are detailed in the chapter 2 of the AMS. In summary they are:
 - **DfT:**
 - develops national policy and law, and also ensures the UK contributes to and meets its obligations under relevant international policy and law.
 - for certain types of airspace change, the Secretary of State may also decide to call-in a particular airspace change proposal in order to make a decision instead of the CAA.
 - **CAA:**
 - is the airspace regulator and primary decision-maker for airspace change proposals.
 - sets the strategy and plan for airspace modernisation in the AMS that is delivered mainly by airports, airlines, air navigation service providers and other aviation and aerospace sector stakeholders and then monitors and reports to Secretary of State on the delivery of strategy.
 - runs a rolling review process on the classification of airspace.
 - to give the airspace change masterplan a statutory basis the CAA will decide whether to accept an airspace change masterplan developed by the Airspace Change Organising Group (ACOG, see below) into the AMS.

¹ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/763085/nats-cao-feasibility-airspace-modernisation.pdf

² https://www.sustainableaviation.co.uk/wp-content/uploads/2020/02/SustainableAviation_CarbonReport_20200203.pdf

³ <https://www.caa.co.uk/cap1711>

- **NATS (en route) plc (NERL):**
 - Manages en-route or upper airspace including delivering air traffic services, and technology and operational upgrades to assist in management.
 - It also has an obligation to maintain the airspace it manages, including sponsoring airspace changes in en-route airspace.
 - **Airspace Change Organising Group (ACOG):**
 - Is an impartial unit within NERL responsible for developing a masterplan of airspace changes to requirements set out in the CAA's strategy and DfT's policy.
 - ACOG will coordinate the delivery of airspace changes sponsored by NERL and airports
 - **Airports and airfields:**
 - Sponsors airspace changes in terminal airspace (in the proximity of the airport) when there is a need and introduces new procedures where justified (e.g. satellite approaches).
12. While airspace modernisation will now also be vital to supporting the aviation sector's recovery from the impact of the COVID-19 pandemic, we are acutely aware of the impact the pandemic has had on the ability to deliver on the strategy. Airports and air navigation service providers that were meant to be progressing modernisation initiatives in 2020 have simply not been in a position both financially, and from a resource perspective, to do this. The timescales in which airspace modernisation will take place will therefore inevitably change.

Oversight, accountability and governance of transport infrastructure projects

13. As stated above, the pandemic has had a significant impact on the ability all stakeholders to deliver on this strategy and it is important that the CAA, as a co-sponsor of the strategy alongside Government, considers what changes can be made to the programme to address the challenging-operating environment.

Impact of COVID-19 on the current framework

14. Two key airspace modernisation initiatives in the CAA's AMS concern the coordinated redesign of terminal airspace surrounding airports and of upper airspace across the UK. Over the last two years the DfT and the CAA have worked together to strengthen the framework for delivering system-level airspace changes. This work includes:
- the introduction of a new strategy and a new governance structure;
 - the creation of the Airspace Change Organising Group (ACOG) with an accountability and funding mechanism established through the NERL ILicence (NERL manages air traffic control of upper airspace and its design); and
 - the introduction of the Air Traffic Management and Unmanned Aircraft (ATMUA) Bill to create new powers to compel an entity to change airspace.

15. This framework has some real benefits as it is local airspace change sponsors, who best understand their local circumstances, operational context and stakeholders' priorities, who are responsible for designing and proposing changes. Accountability for redesigning airspace is, however, still spread across a large number of airports and NERL, with a coordinating and planning role fulfilled by ACOG who are responsible for developing an airspace change masterplan. This means that a range of competing and economically discrete entities are asked (but cannot currently be forced) to choose to work together to bring about airspace changes of wider network benefit.
16. Many airports paused their airspace changes last year because of the pandemic, unable to invest in infrastructure development due to their current financial positions. ACOG has recommended that in these unprecedented times some short-term external funding support for airports should be considered for the next phase of airspace change work . The CAA is keen to maintain momentum on these initiatives given the potential long-term benefits that would be accrued. Although most airports have also demonstrated the appetite and ability to continue, it may be the case in the future that even with funding support, some airports may be unwilling or unable to progress their changes because of other priorities or funding constraints, particularly given the prospect of larger levels of debt being carried by airports.
17. If the ATMUA Bill becomes an Act, and there was a need to consider using the powers, the current financial position of airspace change sponsors would need to be taken into account carefully, especially in the current situation before traffic levels have recovered. The main financial beneficiaries of airspace change are likely to be airlines through fuel savings.
18. The weaknesses in the current framework for airspace modernisation – namely the dispersed accountability and reliance on the willingness and ability of individual entities to co-ordinate – are therefore being further exacerbated by the effects of the COVID-19 pandemic.
19. The CAA believes that without some government intervention – mainly the provision of some external funding – the benefits of airspace modernisation risk being delayed. These benefits include a combination of the annual predicted reduction of over 500,000 tonnes of carbon; the potential to achieve a combination of reduced controlled airspace to benefit the general aviation community in particular, better noise management, and more efficient routes to create growth opportunities across the UK. Intervention would also allow the aviation industry the potential to retain and grow crucial professional skills that might otherwise be lost to other sectors and be difficult to replace.
20. Since ACOG recommended short-term funding support should be considered⁴, the CAA and DfT have been considering various options. This funding should ensure the extensive work that has been carried out so far to achieve the benefits of airspace modernisation is not at best deferred or even lost. However, given the impact of the pandemic on the aviation industry there may be some entities that are unable or unwilling fully re-engage in the airspace modernisation programme.

⁴ <https://www.ourfutureskies.uk/latest-news/2020/acog-remobilising-airspace-change-report/#:~:text=The%20Airspace%20Change%20Organising%20Group,national%20programme%20of%20airspace%20change.>

21. It is, therefore, possible we may need to look at further changes to maintain momentum. This may include considering potential options for how the current framework could be strengthened further if needed. For example, whether greater centralisation in delivering systemised airspace changes could better mitigate the risks posed by dispersed accountability and a challenging financial context; and how the disadvantages that the greater distance from local stakeholders such a centralised model might create could be effectively mitigated.

Impact of COVID-19 on Government policy development

22. When the DfT and CAA first published the AMS and governance structure, the Government was consulting on a new aviation strategy. A third runway at Heathrow was a key driver for the airspace change masterplan in the south east of England, because accommodating it would require significant redesign of the surrounding airspace. The Government's Airports National Policy Statement (ANPS) subsequently confirmed a third runway. Although work has continued, there have been no further external publications in relation to the Government's aviation strategy due to the COVID-19 pandemic and, shortly before the first UK lockdown, the Appeal Court ruled that the ANPS had no legal effect unless and until the Secretary of State has undertaken a review of it. This ruling has recently been overturned by the Supreme Court. Decisions on next steps for this key driver of airspace modernisation are a matter for Heathrow Airport Ltd, in consultation with the Government and its other stakeholders, while taking into account the impacts of the pandemic.
23. At the same time, decarbonisation has become a more important policy priority domestically and internationally. The UK Government is committed to net zero, and we will need to await the Government's Carbon Consultation which is due to be published in 2021 before more detailed objectives relevant to aviation are confirmed.
24. As airspace modernisation is a key national infrastructure programme that relies on private investment, creating a reasonably stable policy and legal framework for implementation is essential. Major uncertainties in that framework will not encourage individual entities to consider making investments.
25. Airspace changes often involve trade-offs between conflicting needs. In its regulatory role of airspace change decision maker, the CAA has to interpret the factors in section 70 of the 2000 Transport Act and other relevant government policy.
26. If policy changed, then the application of the CAA's interpretation of the section 70 factors might lead to different outcomes and decisions. This means that there can be a lack of clarity and certainty, and in some cases, airspace change sponsors may be unclear how we will reach decisions about the trade-off between these different factors. This can act as a disincentive for sponsors to undertake an airspace change proposal.
27. The CAA sets out in its AMS how its interpretation of its Section 70 duties impacts its function to have a strategy and plan for airspace modernisation. The way in which policy and evidence applies to the strategy – and the masterplan of airspace changes that the strategy requires and intends to adopt – is different to how it applies to airspace change decisions. There will be a different evidence base and higher-level options analysis compared with individual airspace changes.

28. However, if there was a conflict between the proposed airspace changes of three different sponsors – because each wanted the airspace to fulfil a different objective, for example to mitigate noise, to increase efficiency, or to improve access for General Aviation – the current policy framework is unlikely to provide clarity for those sponsors. Without greater clarity, the private investment that is needed for the delivery of the AMS may be undermined.
29. At the same time the DfT, who are responsible for aviation-related policy, will need to take into account individual circumstances and relevant policies at the time, particularly as government priorities have changed and have been affected by the pandemic.
30. We welcome the statement in the Government’s National Infrastructure Strategy that recognises the need to tackle ‘policy uncertainty that undermines private investment’. Clear and agile policy decisions will be needed to ensure that the benefits of significant infrastructure projects delivered by private entities are not deferred or lost. The CAA encourages the Government to focus on providing the clarity needed as we emerge from the effects of the pandemic.

Appraisal and funding of transport infrastructure

31. Both the DfT and the CAA are acutely aware of the effect that the pandemic is having on the sector and its ability to progress airspace changes to original plans.
32. Airspace modernisation is long overdue, yet the benefits of creating capacity for airspace users, reducing delays for consumers, reducing controlled airspace to benefit General Aviation and curbing aviation’s environmental impacts could be lost or at best deferred for several years.
33. Airspace modernisation is a long-term collective UK industry aspiration, but airports have been making decisions on continued airspace change investment based on their own liquidity and priorities which have been significantly impacted by the pandemic. These will be based on the costs and benefits to them as an individual airport, rather than on the wider benefits that a coordinated programme can achieve for the UK. In certain circumstances, if one airport decides not to invest further, others may follow suit as the risks of investing in an uncoordinated way may become too high.
34. If the programme collapses, the collective investments made to date will be forfeited and the benefits of upgrading our airspace infrastructure will be deferred for several years. The continued delay would undermine the aviation sector’s efforts to recover with a focus on sustainability and resilience and the government will lose valuable contributions to the UK’s commitments on carbon reduction.
35. The co-sponsors have been considering various options to provide short term funding support to ensure that these benefits are not lost. The inability to access funding support quickly has meant airspace modernisation has been paused, for the moment at least.
36. We welcome the Government’s commitment to fund projects through the National Infrastructure Strategy but note there is not direct support within it for the airspace modernisation programme.
37. The CAA believes that in the current situation resulting from the pandemic there is a need for quickly accessible external funding to be made available for airspace

modernisation projects that provide nationally strategic benefits rather than direct benefits to individual businesses such as airports. Without this it is a concern that the wider benefits of airspace modernisation, such as decarbonisation, will be either delayed, and potentially lost.

Conclusion

38. The key points of the CAA's submission are:
- Airspace is a key part of national infrastructure and it is vital that it is modernised to deliver quicker, quieter and cleaner journeys and more capacity and improved access for the benefit of those who use and are affected by UK airspace.
 - Airspace modernisation will play an important role in delivering on the UK's commitment to reach net zero by 2050, as well as assisting with innovation in the aviation sector.
 - There are some real benefits in the current airspace modernisation framework, however the weaknesses— namely the dispersed accountability and reliance on the willingness and ability of individual entities to co-ordinate – are being further exacerbated by the effects of the COVID-19 pandemic.
 - Clear and agile policy decisions will be needed to ensure that the benefits of significant infrastructure projects delivered by private entities are not lost.
 - The Government is considering funding options in these unprecedented times and may need to look at strengthening the current framework to ensure that the benefits of modernisation are not lost.
39. We look forward to working with the Transport Select Committee, and all aviation stakeholders, on how best to deliver the airspace modernisation and its many nationally important benefits.

Civil Aviation Authority
January 2021