

**BRITISH AIRWAYS RESPONSE TO CAA CONSULTATION
AIRSPACE MODERNISATION STRATEGY**

INTRODUCTION

1. British Airways (BA) is pleased to submit comments in response to the CAA consultation on its Airspace Modernisation Strategy – CAP1690. BA is the largest airline operating at Heathrow and London City, with a significant presence at Gatwick as well. In 2017, BA's parent company IAG, which also includes Aer Lingus, Iberia and Vueling, carried over 105 million passengers in 546 aircraft to 279 destinations across the world.
2. BA maintains the strong view that modernisation of UK airspace, particularly in London and the South-East, is fundamental to protect against current and future delays and ensure that airlines can continue to provide consumers with safe, efficient and resilient connections to destinations across the world, and deliver the economic benefits that air transport offers the UK. We firmly believe that the need for political and legislative support and regulatory oversight to deliver this is now at unprecedented levels of urgency. The time for action is now and this requires the Government to take a leading role at ministerial level and a cast iron Airspace Modernisation Strategy (AMS) to articulate and outline how the Government's Airspace Policy should be implemented. Further delay is unthinkable

GENERAL VIEWS ON THE NEED FOR AIRSPACE MODERNISATION

3. BA's parent company IAG responded to the DfT UK Airspace Policy consultation held last year which outlined the challenge of managing increasing numbers of civil air traffic movements in our current, inefficient airspace system. It is evident that continuing to operate without airspace modernisation will see passengers face longer journeys and delays. As airspace becomes increasingly congested, delay levels will increase, cancellation rates will multiply, more emissions will be generated, and noise improvements will be prevented.
4. Even without Heathrow expansion, NATS analysis suggests that commercial air transport is forecast to grow by around 2% a year in the UK, from 2.25m flights in 2015 to 3.25m flights by 2030. With no improvements to airspace, NATS forecasts show that 1 in 3 UK flights will be delayed by more than half an hour by 2030. This equates to 5 million minutes of delay annually with the total cumulative cost of delay and cancellation from 2016 to 2030 totalling c.£1bn in 2016 values. Beyond 2030, delays and cancellations will get progressively worse.
5. Airspace is a key part of the UK's national transport infrastructure. Like surface transport modes, airspace infrastructure facilitates travel for leisure and business, supporting jobs and trade and delivering considerable economic and social benefits. However, air travel is severely hampered by airspace design in the UK and consumers, whether passenger or cargo-owners, currently experience significant delays due to airlines operating in an airspace structure that has been devoid of significant transformation for over 50 years. This is felt most strongly in London and the South-East. We have consistently stated that Government must ensure that airspace management is given the same attention and priority as our rail and road infrastructure.
6. It is striking that BA is retiring aircraft that it equipped with precision navigation equipment that has been used in modern airspace across the world but cannot be used with the UK's out of date

navigation systems. It's well known that many routes and practices are not utilising modern technologies available. Aircraft continue to use flightpaths that are outdated, often longer or lower than they need to be, and are not optimised to reduce noise impacts or offer relief. This means routes and practices can be both inefficient and ineffective, leading to unnecessary delays for passengers and excessive impacts on the environment and those living near our airports.

7. It has also been correctly identified that airspace modernisation would improve environmental performance by allowing aircraft to fly more efficiently, using more flexible departure and arrivals routings and more agreeable operating procedures, including continuous climb and descent, and reducing or eliminating the need to hold arriving aircraft in orbital queues. These improvements will result in lower fuel use and improved carbon efficiency. Industry studies show that they could deliver a potential carbon saving to UK aviation of between 9% and 14% by 2050. Combined with the introduction of quieter aircraft, these improvements would deliver the potential to accommodate forecasted growth in air transport movements to 2050 and at the same time achieve a potential reduction to UK aviation's total noise output compared to 2010¹.
8. BA must stress the importance of maximising airspace capacity, efficiency and resilience to cope with anticipated growth in air traffic and future-proof for airport developments which are designated to be of national significance. We consider this to be a priority second only to safety principles when it comes to modernising UK airspace. BA takes the view that maximising airspace capacity and creating headroom is the key to unlocking everything else. This includes resilience and other operational efficiencies, enhanced safety/technical standards, improved environmental/economic performance, reduced noise and reduced impacts on other users. Just as maximising airspace capacity unlocks these key benefits, so airspace modernisation is vital to delivering the aims of the government's wider aviation policy. The government should explicitly adopt this strategy as part of its overall aviation strategy development and the CAA's own strategy and on-going reporting to the Secretary of State should endorse this connection.
9. The following pages cover BA's responses to the specific consultation questions.
10. If you have any questions on this response, please contact:

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¹ Sustainable Aviation: CO2 Road Map and Noise Road Map

GENERAL OBSERVATIONS

Question 1: Do you agree with the overall approach taken in the strategy, as described here?

ANSWER: Mostly

11. The Government has the fundamental role of facilitating improvements to airspace and to that end has now set the overall policy objectives for the CAA, NATS and industry stakeholders to develop airspace that is fit for purpose and resolved in a timely manner to meet developing demand. The CAA Draft Airspace Modernisation Strategy (AMS) must now seek to articulate and outline how the Government / DfT's Airspace Policy should be implemented. Specifically, the strategy must address the urgent need to complete LAMP2 for lower-level airspace across the London Terminal Manoeuvring Area (LTMA) by 2024 at the latest regardless of Heathrow expansion.
12. BA has always been supportive of the approach of the Future Airspace Strategy Group (FAS) but whilst this was successful in bringing together different industry stakeholders, progress on the programmes and projects identified to deliver transformation has been very slow. With BA's main hub at Heathrow dependent on well-structured airspace, we view the delays to date, and further anticipated delay in delivering the strategy and the LAMP2 programme, with considerable frustration.
13. The current milestones and delivery timeline for LAMP2 for the upcoming NATS Regulatory Period 3 (2020-2024) are already too late and leave no room for further delay. Clearly, LAMP2 must be completed well before any Heathrow expansion. That said, the evidence is clear that airspace change is needed now and so, irrespective of the need to prioritise airport expansion, Heathrow should not be used as an excuse to hold back airspace modernisation in London and the South East that can be achieved in the interim.
14. BA strongly agrees that NATS and the industry should engage throughout the end-to-end airspace change process. BA is committed to working with NATS, the CAA and all airports to address the clear and compelling need to deliver the transformative changes required to enable UK airspace to meet the challenges of increased traffic and any airport infrastructure developments designated to be of national significance.
15. The FASI-S programme will particularly require an unprecedented amount of coordination. Different airports will have the same demands over the same airspace and will impact the same communities with their airspace change proposals. The different sponsors of neighbouring airspace changes also need to ensure that their lower-level airspace change proposals fit with the NATS LAMP2 re-design of upper route airspace. All will need to ensure their proposals are submitted to the CAA in a coordinated way, with gateways and milestones agreed with industry to ensure delivery.
16. The DfT, CAA and NATS must ensure that future demands on airspace are fully understood and the new approach to airspace modernisation governance to oversee implementation is key. As airspace design changes cannot be properly affected without the close engagement of all ANSPs, airports and aircraft operators, we believe the Government's new Aviation Strategy must consider

new powers of enforcement to ensure mechanisms are in place to facilitate coordinated design and make sure all stakeholders collaborate and take forward important airspace changes.

17. Delays to date have injected significant uncertainty in the FAS programme. We cannot afford to allow this to happen with the proposed AMS programme, as this will only result in the delays experienced by passengers today increasing and continuing for even longer. It is not acceptable for the programme to be left with no fixed plan for delivery while consumers pay the penalty. A clear deployment plan is needed to allow NATS and airlines to make the case for investment in equipment and systems to fully exploit new airspace capacity. We stand ready to play our part in reinvigorating the AMS programme.
18. BA supports the FASIG proposal of adding a strategic goals section up front, linked to the main themes in section 3.4. We also support the standpoint that maximising capacity and resilience should be included in place of 'efficiency' as a more encompassing strategic goal. The strategic goals could cover the following points for each area.
19. **SAFETY** - Safety is a fundamental requirement of the industry and should never be compromised by other strategic goals. Modernised airspace must be able to handle the anticipated growth in UK air traffic with levels of safety that are at least equivalent to today. Compliance with EC metrics should be a given but stretch targets at a more detailed level to offset the increased risk from UK traffic growth should also be expected.
20. **MAXIMISE AIRSPACE CAPACITY AND RESILIENCE** - As highlighted above, BA is strongly in favour of the strategic goal stated under Item 4 of the consultation document Executive Summary that "airspace capacity is not a constraint on the growth of commercial aviation". It is of utmost importance to safeguard enough headroom capacity and redundancy in the system to cope with anticipated growth in traffic, with the same levels of safety and increased operational resilience. The need for resilience is not only about ensuring airspace is designed to enable recovery from disruption on a bad day but also about managing day-to-day traffic with minimal delays. Realistically, increased resilience will only be achieved by increasing or indeed maximising capacity. Future proofing by creating headroom is also the key to unlocking everything else, including other operational efficiencies, enhanced safety/technical standards, improved environmental/economic performance, reduced noise and reduced impacts on other users.
21. It feels unrealistic to achieve capacity benefits within the current volume of airspace and consequently we believe that more airspace above 7,000ft is likely to be required to deliver safe, efficient and resilient design without impacting other users and so options to deliver this should not be discounted. That said, it is also important to make more efficient use of existing airspace with use of new ground, airborne and satellite-based technology. Where increases in controlled airspace are needed, trade-offs can be explored to achieve common goals.
22. This strategic goal should also acknowledge the need to, (i) future proof for airport developments which are designated to be of national significance, (ii) consider the phasing and alignment of airspace capacity developments in line with airport National Policy Statements and relevant airport Master Plans and (iii) develop detailed and integrated upper/lower airspace plans with gateways/milestones agreed with the industry to ensure delivery in line with national policy commitments.

23. **INTEGRATION** - Consideration should also be given to how airspace design can help reduce infringements of controlled airspace, which currently account for a third of all losses of separation. This could largely be achieved by raising the required standards of general aviation pilots and compelling all airspace users, including new entrants such as drones, to use available technology to achieve required levels of conspicuity for all aircraft.
24. **ENVIRONMENTAL PERFORMANCE** - BA takes the view that a balance needs to be struck such that any airspace change achieves the best overall outcome on noise, air quality and environmental performance, whilst delivering an improved system for consumers in terms of minimising delays and maximising safety, runway throughput and resilience on a sustainable basis.
25. It is important to optimise network fuel performance and minimise CO₂ emissions per flight, by involving aircraft operators in developing scenarios to optimise capacity, fuel burn and resilience. BA agrees with the concept of fuel trade-offs for long-term capacity benefits to a point but fuel disbenefit being balanced across the network may unduly penalise a particular airport or carrier and could cause a fuel disbenefit to those routes/city pairs that are modified to seek a balance. We cannot envisage trade-offs that impact on 'primary' airfields or flows to achieve a nominal balance being acceptable.
26. To optimise capacity, fuel burn and resilience we believe an element of optioneering is needed with different weightings for different airports based on the relative benefits to the network. Principally, we believe Heathrow should be prioritised with the highest weighting. If Heathrow fails the network fails, and so Heathrow should be the starting point for design before building out from there.
27. BA would like to see airline operators consulted and brought in from an early stage in the development of options and scenarios. Longer routings will have an impact on costs and schedules and so these will have to be considered as part of consultations. Options must fully address the interface with changes below 7,000ft and cost-benefit analysis should be conducted to address both flight efficiency and capacity per option to facilitate informed decision making. The consultation process should conclude with documented justification for preferred options.
28. We should, wherever possible, avoid compromising trajectories, entry/exit points and throughput for upper airspace to accommodate issues below 7,000ft. Safety and the technological capability of aircraft must always be considered. In the interests of efficient operations, with the commercial and wider environmental benefits that brings, the transition from lower to upper airspace should not result in unreasonably long flight tracks or steep turns and climb gradients, especially as this often has detrimental consequences in terms of noise and emissions below 7,000ft. We are otherwise prepared to operate airspace as it is designed, providing it does not limit or constrain throughput and is within the technological capability of aircraft and is safety compliant, e.g. Flight Management Systems have limits on the quantity of different PBN flight paths that can be stored and so these must be manageable to avoid excessive complexity and associated safety risks.
29. **DEFENCE and SECURITY** - The impacts of revised military airspace arrangements on the network and commercial air traffic should be minimised, and existing standard airspace structures used where possible. BA would particularly want to see better future management of airspace to utilise Flexible Use Airspace (FUA) principles. BA welcomes the MOD's commitment to working with NATS to make real improvement setting targets in this regard.

30. **INTERNATIONAL ALIGNMENT** - a key part of achieving the optimal network performance will be ensuring that UK airspace is effectively integrated with surrounding airspace, particularly in Europe. This needs to be done both tactically, at an operational level, and strategically at a pan-European policy level. The UK's airspace strategy should continue to be predicated on working closely with other European states and air navigation service providers as part of EUROCONTROL, SESAR and EASA.
31. Overall, BA mostly supports the approach taken in the strategy subject to the points made above and in the remainder of our response to CAP 1690. The AMS document does explain the rationale behind the strategy in a way that can be understood both by the lay person and those stakeholders with a background in aviation. This is, and will continue to be, essential to ensure engagement with those communities affected by growing demands on airspace.
32. Ultimately airspace modernisation requires the political will to make it happen and the proposed "National Governance Arrangement" could speak to this. BA supports the proposal to have ministerial oversight and support for the process at the highest level. Airspace modernisation differs to built national infrastructure in that it does not go through a National Policy Statement process such as Heathrow Runway 3 but the Parliamentary debate, decision and political legitimacy that this affords such initiatives would be hugely valuable and should be considered as part of taking forward the draft airspace modernisation strategy. The CAA should promote this concept as part of the debate around wider governance with DfT and ministers.

Question 2: Has the CAA identified the right Government policies in this strategy?

ANSWER: Mostly, but there are existing Government policies missing

33. In addition to the Government policies, EU regulations and ICAO obligations identified, the draft strategy needs to be cognisant of the 2013 Aviation Policy Framework which outlines current UK aviation policy. Whilst this will be superseded by the Aviation Strategy due in 2019, the draft AMS should take its cue from existing policy and then adapt where the new strategy requires it. This is one of the challenges of developing an effective AMS when the over-arching aviation strategy is being revised but the CAA should anticipate an evolution of current policy in relation to airspace. Airspace modernisation and maximising airspace capacity and resilience will be vital to delivering the aims of the government's wider aviation policy. We will be encouraging the government to explicitly adopt this strategy as part of its overall aviation strategy development and so the CAA's own strategy and on-going reporting to the Secretary of State should anticipate the need to endorse this connection.
34. The CAA clearly has a number of statutory obligations in Government policy (2000 Transport Act and 2017 Air Navigation Guidance) but it should also outline how its primary duty to consumers under the 2012 Civil Aviation Act fits with these and how it will exercise its powers and obligations where these overlap. From a consumer perspective the case for airspace modernisation is overwhelming – reducing delays, minimising congestion and mitigating disruption.

WAYS OF MODERNISING AIRSPACE

Question 3: Do you agree with the 14 initiatives set out in the strategy?

ANSWER: Mostly, but some initiatives are not relevant/some other initiatives are missing.

35. BA supports the more detailed comments made in the FASIIIG and Airlines UK responses to CAP 1690. The draft AMS should seek to finally deliver the UK's existing FAS plans and deliver modernised airspace that can be deployed as soon as possible prior to any airport expansion. As such, the AMS should not be limited to the SESAR Deployment Pilot Common Project (PCP) requirements which have very specific scope and do not cover the breadth of airspace modernisation required for the UK as a whole.
36. The AMS must ensure that all industry progress in implementing airspace modernisation is monitored including PCP requirements. The PCP dates should be complied with as planned however, we believe that if the European mandate to deliver PCP changes, potentially as a result of the UK leaving the EU, and an alternative national UK mandate is being put in place we should not preclude more aggressive PCP dates being put in place. BA notes that the deadline for PCP is the end of 2023 which should not be confused with the NATS aim of delivering LAMP2 / FASI-S by the end of 2024.
37. BA fully supports NATS aim to deliver LAMP2 / FASI-S by the end of 2024 but there is clearly scope for these dates to drift, whether due to technical airspace modernisation challenges, a longer than anticipated CAP 1616 airspace change process, or a delay in sign-off by the Secretary of State. Therefore the 14 initiatives highlighted will need to be flexibly delivered as circumstances dictate.
38. Regarding Upper Airspace change, as the primary users of airspace, airlines are particularly concerned about the need to move to Direct Route Airspace, as opposed to a straight transition to Free Route Airspace. Free Route Airspace is clearly the most desirable option and as modernisation is heading in that direction anyway, we see little benefit of adding a large number of additional waypoints only to remove them later on. There is clear precedence in Portugal and Ireland for an immediate transition to Free Route Airspace. As such instances show, this immediate transition is clearly compatible with European legislation in the PCP.
39. In terms of Advanced Flexible Use of Airspace, technology enablers must include Airline Flight Planning systems as well as Airspace management tools. New SWIM tools may be required to link CFSP and ASM systems. The reason is the goal of flight planning/filing ever closer to EOBT that can only be achieved with flight planning systems having constant and immediate access to ASM data.
40. The strategy should also consider the following requirements important for airspace modernisation:
 - Deployment of a SESAR compliant ATM infrastructure (e.g. NATS DSESAR) leading to 4D trajectory management
 - Industry wide collaborative decision making including data sharing via SWIM and continued roll-out of DPI messaging to improve the quality of network data and airport CDM
 - Time Based Separation for PCP airports (EGLL/KK/CC)
 - Improved access to weather data for industry decision making
 - IRG initiatives to improve the resilience of the ATM network and airports

41. Full attention should be paid to airspace modernisation to match the actually present modern aircraft capabilities that make use of satellite-based navigation, data link communication and enhanced surveillance. The integration of Communication, Navigation and Surveillance enablers, which allows for enhanced airspace capacity and flight as well as ATM efficiency improvements, is essential and of utmost importance. This function should be considered to be part of a Programme Management Office (PMO) within the delivery organisation.
42. Overall the 14 initiatives should not be considered an exhaustive list to facilitate airspace modernisation and may need to be amended and added to where necessary.
43. Further to the initiatives listed and more generally BA would advocate a principle of using 'an appropriate standard of PBN'. As stated previously, we must ensure compliance with PCP legislation EU (716/2014) where specified in AF#1 of the PCP and we support the ICAO requirement for PBN in all phases of flight. Therefore, where it can be proven to optimise the capacity and resilience of the network and where we are capable (through equipage to meet PCP legislation), the AMS should be looking to incentivise advancement of RNAV/RNP operations in the LTMA and larger LAMP airfields to take advantage of existing technology now, where it is not already used.
44. The lack of progress in modernising UK airspace over the last 20 years is particularly disappointing when put in a global context. BA devotes significant resource to the tactical and strategic management of air traffic control, airport and airspace related issues to optimise its performance in current and future airspace. However, aircraft that BA operates in the UK have not been able to fully utilise their advanced navigational capabilities despite being able to use them in the rest of the world, e.g. the benefits of PBN standards are already being demonstrated in Frankfurt, Hong Kong and Atlanta and other overseas airports. BA equipped its Boeing 777 fleet with on-board navigation systems to enable area navigation routings (RNAV), but these aircraft will start to be retired before this technology has had the chance to benefit consumers and communities in the UK by flying more efficiently and precisely. Likewise, newer aircraft BA now operates, such as the Airbus A380, are forced to use traditional beacon navigation infrastructure despite their advanced on-board technology.
45. Virtually all modern aircraft can take advantage of satellite-based navigation to fly more precise routes. However, consideration must be given to the timelines associated with fleet equipage projections and the phasing out of older navigational technologies. There are marginal gains to be had by equipping legacy aircraft with specific levels of PBN capability such as RNP AR but this does come at significant cost and is not possible on some aircraft fleets, notably the Boeing 747.
46. BA believes that there is a case to review the NATS licence policy of "first come, first served" for managing aircraft in UK airspace. With the delay to the London airspace programme and increasing demand resulting in further delays and congestion, it may be more appropriate to move to a "best equipped, best served" policy that incentivises airlines and aircraft operators to invest in and deploy newer aircraft navigational technology. Whilst this would represent a departure from accepted practice worldwide, London and South-East airspace is the busiest and most congested airspace in the world and so this approach does merit careful review.

GAPS IDENTIFIED IN THE STRATEGY

Question 4: Have we identified the right gaps? Are there any that we have not identified?

47. The CAA policy has identified the right gaps at a broad level. In particular, compelling airspace to be changed will be essential to successfully deliver FASI-S / LAMP2 and we support the CAA identifying this gap and outlining how policy could be developed in this area. There is no way of ensuring that airports will sponsor the airspace changes. The 'letterboxes in the sky' concept that NATS have advanced in their feasibility study may have to include provision for future expansion at South-East airfields that do not engage in initial planning for LAMP2. With the large airspace re-structure required for FASI-S / LAMP2 the largest airports/airfields could stifle future expansion without inclusion of entry/exit gates into terminal and upper airspace in their change proposals - even if it is not of immediate use to them. The CAA and the draft AMS should take this issue forward.
48. At a technical level there does appear to be a gap in that the AMS document considers the airspace above 25,000 feet as upper airspace (para 4.3) but PCP AF3 is at FL310+. Could the CAA clarify this point?
49. The AMS will also need to be flexible enough to cater for emerging innovations or disrupters in airspace including cyber security development and the growth in the drone/UTM sector and the strategy recognises this.
50. Other issues include the successor to the FAS Investment Board (see Q6 response) and the CAA's SARG role and resource (see Q5 response).

APPROACH TO THE 'MEANS' OF MODERNISING AIRSPACE

Question 5: Do you agree with our approach of asking those organisations tasked with delivering the initiatives to set out deployment plans to identify the means (resources) necessary?

ANSWER: YES

51. BA agrees with the CAA's proposed approach detailed in its RP3 business plan guidance to NERL that NATS should set out how it would approach delivery of airspace modernisation. Tasking NATS with setting out its masterplan for airspace modernisation via airspace regulation does not mean that the governance for this function should sit solely within CAA regulation of NERL however and BA outlines its views on airspace modernisation governance in response to Q6.
52. As well as requiring NATS to set out how it will deliver and resource airspace modernisation the CAA also needs to set out how it will manage the AMS and, crucially, how it will manage and resource the CAP 1616 airspace change process. SARG must outline how it will resource and prioritise ACP proposals to ensure that the CAA itself does not become a block to the delivery of airspace modernisation and the objectives and initiatives of the AMS.
53. The new CAP 1616 process will place significant responsibilities on airspace change sponsors and this must be matched by the CAA's ability to administer the process itself. At the current time there

is already a significant backlog of ACP proposals and these need to be cleared and resource made available to manage the significant work required to deliver FASI-S / LAMP2 and FASI-N.

54. In the first instance BA would like the CAA and DfT to share NATS feasibility study into airspace modernisation so airline users of airspace can better understand progress to date.
55. As the CAA is tasking NERL (NATS) with delivering airspace modernisation in RP3 this will also require the CAA to take more of an active role in RP3 discussions related to delivery of airspace modernisation. Notwithstanding the criticality of airspace modernisation NERL remains a monopoly provider of air navigation services and this needs to continue to be effectively regulated by the CAA CPG.

GOVERNANCE

Question 6: The draft governance structure in this document was developed by the Department for Transport, CAA and NATS working together. Do you agree with the approach set out here?

ANSWER: Mostly

56. As previously indicated BA supports the Airlines UK response to CAP 1690. In particular, the Airlines UK response to this question is fully supported and we repeat it in this section below as BA's position. It is essential that the Department for Transport, the CAA and NATS work together in their roles as policy makers, regulators and implementers. Given the political implications of airspace modernisation success can only be achieved through a shared governance structure that incorporates shared responsibility.
57. BA supports the proposal for a DfT minister to chair the leadership group and for CAA and DfT to co-chair the sponsorship group. There must be airline involvement in these groups.

AIRLINES UK response

Whilst we broadly agree with the proposed governance structure, there is one significant change we suggest. Primarily, we cite the need for a national airspace modernisation PMO.

UK Airspace Strategy Policy Board.

We think this Board would serve an important role and would support its creation. In terms of attendees, we would suggest this should start at a relatively senior level, although consideration given as to who is best placed within each business to attend.

We think environmental groups would be better situated in the airspace modernisation strategy engagement plan section, as opposed to this Board.

UK Airspace Modernisation PMO

We believe a publicly funded project management office, with some public profile, should be established in place of the airspace change delivery plan group and delivery coordination group.

In terms of the functions of this group, we note the proposals by NATS for a Southern Airspace Modernisation Organising Group (SAMOG) and would broadly agree with the technical remit proposed for this group. The principal role of this PMO should be to define and manage the overall programme management plan for airspace modernisation in the UK.

Where we diverge from the SAMOG proposal is that we believe the organisation should be nationally focused, funded and sponsored by central Government and that potentially its leadership could come from outside the sector. We also see a somewhat more prominent role for the various stakeholders than that described in the current SAMOG proposals, ensuring that all relevant parts of the industry would be adequately represented. In particular, airlines should play a leading role.

In terms of the remit of the PMO, airspace is a piece of national infrastructure and so although the most technically difficult area to deliver is likely to be the Southern component, a national focus is required. This is to account for the interdependencies that will exist between different regions and to ensure that airspace modernisation across the country is pursued at a similar pace. This national focus is also vitally important to ensure the UK's airspace interface with neighbouring States is accounted for. Optimised traffic flows to/from the North Atlantic, Ireland, Maastricht and French airspace will all contribute toward an efficient airspace infrastructure.

Regarding funding, generally there is a clear precedent for Government funding infrastructure improvements. In this instance, ICCAN serves as a further useful precedent of Government funding being used to support the overall airspace change process. We believe there is value in the PMO having some independence from industry and so external leadership should be considered. While stakeholders will necessarily be heavily involved in supporting such a body, if for example a component of NATS were to lead it, it would become somewhat circular, with NATS responsible for setting their own targets and scrutinising their own delivery. For this reason, we would oppose NATS leading this new body. It should be noted that this would be true if any other part of the sector led the process. Given this and the fact that the process would be benefited by an organisation that can challenge and stretch Government and industry, an external provider should be considered.

Comparisons have been made between this proposal and HS2. Whilst we accept the scale of HS2 could not be replicated in such a short time, given the role of this PMO would be somewhat smaller, we would argue that such a model is worth serious consideration. An executive non-departmental public body, sponsored by the Department for Transport has, in the HS2 example, provided exactly the leadership, delivery and political separation/support we are looking for in this process. It also serves as a relevant example as the funding of HS2 through a grant-in aid from Government is the type of funding we think is most appropriate to the airspace PMO.

In terms of political separation/support, we perceive that a major benefit of such a body – provided it had some public visibility and was not an obscure industry group – would be to help protect and maintain Government support for airspace modernisation.

Tough decisions will have to be made during the modernisation process and while CAP1616 should ensure the process is robust enough to survive judicial reviews, the programme is still susceptible to failure through a lack of political support. Where attempts at airspace modernisation have failed before – such as Terminal Control North – a lack of political support

has been a clear factor. Whilst we recognise and appreciate this Government's clear support for airspace modernisation, given the extended timeline of this project it would be complacent to assume those conditions will always exist.

A PMO as we propose would help to provide some political separation between the Government and the delivery of airspace modernisation. This will help to ensure the programme is sustainable for Government even during periods where – particularly with lower airspace changes – there are significant local political and/or social challenges.

Airspace modernisation strategy engagement plan

In addition to community/environmental groups being represented in this section, we believe that businesses and consumer groups – the ultimate users of our airspace – should also be invited to participate.

Joint airspace communications group.

We strongly support the creation of such a group. Industry efforts (such as *The Sky's the Limit* campaign) have already helped to start a debate around airspace modernisation and building on this with an industry/government communication effort, would be very powerful.

END