

Airspace Modernisation – 2021 Progress Report

CAP 2281



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Executive Summary

1. In 2017, the Government updated the Civil Aviation Authority's (CAA's) strategic role for airspace modernisation by issuing new Air Navigation Directions. Consistent with our role as specialist aviation regulator and our statutory responsibilities, we are required to prepare and maintain a co-ordinated strategy and plan for the use of UK airspace for air navigation up to 2040, including for the modernisation of the use of such airspace.
2. Our Airspace Modernisation Strategy¹ responds to that requirement, setting out the detailed initiatives that industry must deliver to achieve the objectives envisaged in current Government policy.
3. The strategy sets out the ends, ways and means of modernising airspace, initially focusing on the period until the end of 2024.² The **ends** are derived from UK Government and relevant international policy and the **ways** of achieving them are set through fifteen initiatives that include new airspace design, new operational concepts and new technologies. To establish the **means** of delivering modernised airspace, such as the resources needed, the strategy requires the entities responsible for delivering the initiatives to draw up delivery plans, with progress overseen by the CAA.
4. The CAA must report to the Secretary of State annually on the delivery of the strategy. The update provided within the following chapters of this report comprises of detail on the progress made by the industry, as well as on the work the CAA have conducted in 2021.
5. In Chapter 1 we provide an overview of the current initiatives and our assessment of progress towards completion of each one. This has been done in the form of a 'RAG' status and compared against progress made in 2020.

¹ [CAP1711 Airspace Modernisation Strategy December 2018](#)

² [2024 corresponds to the end of the next Single European Sky Performance Scheme reference period \(RP3\)](#)

6. Six of the fifteen initiatives are assessed as on track (green), an improvement on four reported as on track in 2020. Five initiatives require attention, also an improvement on the nine reported last year. Predominantly the impact concerns delayed timescales of delivery against the original plans set out within the Airspace Modernisation Strategy, which may have shifted as a result of ongoing recovery of the aviation industry from the COVID-19 pandemic. Four initiatives have been assessed as having 'major issues', due to the need for further legislations on Performance Based Navigation and Air Traffic Management, core elements of airspace modernisation strategy.
7. Key areas of progress have been noted within Free Route Airspace (Initiative 2) with successful delivery of the Airspace Change Proposals sponsored by National Air Traffic Services (NATS) (En Route) plc. Remobilisation and progress, coordinated by the Airspace Change Organising Group (ACOG), under the FASI South and North airspace change programmes (Initiatives 4 and 5), were also made possible by the Government funding support package. A key milestone has been achieved on the programme in December 2021, with ACOG submitting Iteration 2 of the Masterplan for assessment by the CAA.
8. Initiatives 9, 10 and 11, which are at the CAA Policy Development Stage, have also demonstrated progress. Work on the Flight Information Service is now complete, with the publication of '*Supplementary Instruction CAP 797 SI 2021/03 FISO Manual: Use of ATS Surveillance Systems in Aerodrome Flight Information Service*' in December. The workstream now awaits the Airspace Modernisation Strategy refresh and work on the Lower Airspace Service replacement to continue. We have also decided to refresh and adopt a regional approach to the Airspace Classification Review workstream, with an expectation to move to the Amend phase for the Cotswold Region in April 2022. The CAA has also reached an agreement with the Department for Transport (DfT) regarding Electronic Conspicuity and established an Industry Surveillance Task Force, to develop air and ground specifications for Electronic Conspicuity.
9. In Chapter 2 we provide an update from the Co-Sponsors on the policy and regulatory process, with a particular emphasis on stakeholder engagement activity undertaken as part of the Airspace Modernisation Strategy Refresh and the re-introduction of the Airspace Modernisation Strategy Support Fund. Strategic risks have also been flagged within this chapter, predominantly concerning the future delivery model, financing, and resourcing of the modernisation programme.

10. Chapter 3 provides updates related specifically to activities under the Airspace Modernisation Strategy, undertaken within areas of particular interest from the General Aviation and Communities stakeholder groups.

Chapter 1

Delivery Plans and Progress 2021

- 1.1 There are currently fifteen Initiatives, set out within [CAP1711 Airspace Modernisation Strategy](#), published in 2018. Chapter 1 contains an overview of the existing Airspace Modernisation Strategy Initiatives and their delivery plans.
- 1.2 Table 1.1 assesses the level of progress made under each Initiative and within each section, indicated by a **green**, **amber** or **red status** and compared with progress indication made in the previous year:
- **green** status indicates that the Initiative is on track to be completed in the timescales expected.
 - **amber** status indicates that the Initiative needs attention from key stakeholders to ensure completion in the timescales expected, or that there may be merit in reconsidering deadlines where possible.
 - **red** status indicates there are major issues with the Initiative and a significant risk that completion will not be achieved in the timescales expected.
- 1.3 In line with the format of the Airspace Modernisation Strategy, each initiative within this report is laid out and described in scope sections, highlighting areas which will require modernisation. Those areas of work are defined as: **.1 Airspace Design**, **.2 Operational Procedures** and **.3 Technology Enablers**. Progress of work under each scope area has also been assessed, as per the RAG status indicated above.
- 1.4 A Trend Indicator has been provided with progress status as follows:
- 

Progress is getting **worse**; severity is trending up



Progress is getting **better**; severity is trending down



Progress is **steady**.
- 1.5 Key dependencies and risks to the realisation of modernisation benefits are also summarised in Table 1.1. The risks are assessed on a 1 (low) to 5 (high) scale against likelihood (L), and severity (S).

Table 1.1 Initiative plan and progress status - December 2021

Direct Route Airspace		1	NERL's SIP
UPPER AIRSPACE	Description: deployment of additional waypoints to the existing route network.		Implemented
	1.1 New waypoints	1.2 Established procedures	1.3 Airline flight planning system
	Timescale: 2018	Driver: UK Statutory Instrument / Airspace Modernisation Strategy	
	Stage: Implemented	Mechanism: NATS (En Route) plc Service and Investment Plan	
	<u>Progress Update</u>		
	The implementation of Direct Route Airspace was mandated by Implementing Regulation EU 716/2014, as retained (and amended in UK domestic law), under the European Union (EU) (Withdrawal) Act 2018.		
	Direct Route Airspace as a steppingstone towards Free Route Airspace (see Initiative 2).		
This Initiative is now considered as implemented and closed, because NATS (En Route) plc has dedicated efforts and resource to further optimise airspace design under the Free Route Airspace concept, as described below under Initiative 2.			
Risks to benefit realisation:		Score:	
n/a		n/a	

Free Route Airspace

2

NERL's SIP

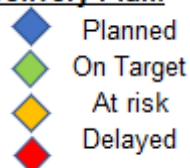
UPPER AIRSPACE

Description: removal of all fixed routes so aircraft can fly fully optimised routes.		2020	↑	2021
2.1 Remove fixed route network	2.2 New procedures	2.3 Airline flight planning system		
Timescale: 2025+	Driver: UK Statutory Instrument / Airspace Modernisation Strategy			
Stage: Delivery	Mechanism: NATS (En Route) plc Service and Investment Plan			
<u>Scope</u> Free Route Airspace, as defined by EUROCONTROL, is a ' <i>specified airspace within which users can freely plan a route between a defined entry point and a defined exit point, with the possibility of routeing via intermediate (published or unpublished) waypoints, without reference to the Air Traffic Services route network, subject of course to availability. Within such airspace, flights remain subject to air traffic control</i> '. The implementation of Free Route Airspace is mandated by the United Kingdom (UK) Regulation (EU) 716/2014. NATS (En Route) plc is intending to cover these requirements and Borealis Alliance ^[1] ambitions for the UK, whilst managing the deployment in line with other simultaneous airspace modernisation projects. The programme was originally initiated in January 2015, to fulfil the key free route planning principles, where users could ultimately flight plan to preferred trajectories, irrespective of the air traffic control responsibility boundaries across the Borealis-controlled airspace.				

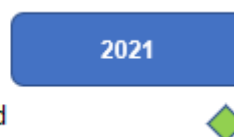
^[1] The Borealis Alliance is a group of Air Navigation Service Providers collaborating on a major programme to deliver free route airspace across the whole of Northern European Union.

Key Milestones

Delivery Plan:



Deployment 1: Scotland/Northern Ireland



Deployment 1 is on track for delivery in December 2021 with the Airspace Change Proposal approved and Operational Conversion Training of controllers and transition planning underway. An additional deployment of Free Route Airspace is included in the southwest approaches, as an enabler to permit the deployment of Free Route Airspace across Brest Control West sectors in December 2021.

Deployment 2: South West England/most of Wales



Deployment 2 remains on track for delivery in Spring 2023 as part of the West Airspace Deployment with consultation currently underway having passed CAP1616 Stage 3B.

Deployment 3: Northern England/North Wales



Deployment 4: South East England



Deployments 3 and 4, delivery timelines have had to be revised as a consequence of the impact of the COVID-19 pandemic and delayed deployment of the Deployment Point (DP)-En Route technology platform. The timelines are subject to the regulatory cycle reference period NR23³ consultation outcome, but the deployments are targeted

³ In light of changes to the regulatory framework brought about by the UK withdrawal from the European Union and the impact of COVID-19, we expect to establish a new UK performance plan for the period 2023 to 2027, known as "NR23", which will supersede the RP3 performance plan.

currently as November 2025 and November 2026, due to their dependency with delivery of DP-En Route technology.

The timescale of this milestone is annotated as '**At Risk**' due to the consequence of planned delivery being beyond 2025, so there may be merit in revising the current timescale for completion.

Key Achievements

Deployment 1, the Airspace Change Proposal has been approved, the UK Aeronautical Information Publication changes have been published and operational staff training took place to support implementation in December 2021. The CAA's online Airspace Change Portal includes up to date information and documents for this change, which can be accessed [here](#).

The Free Route Airspace D2.1 Airspace Change Proposal, for the deployment of Free Route Airspace in a small portion of the southwest approach in the London UIR, has been approved and was an important enabler for realising the benefit of delivery in the Brest West sectors. The online Airspace Change Portal includes up to date information and documents for this change, which can be accessed [here](#).

The Airspace Change Proposal Phase 2 (FRA D2: ACP-2019-12), which supports deployment of Free Route Airspace across the Swanwick West Sector Group, is currently at Stage 3B of the airspace change process. It has undergone consultation in November 2021 with a planned implementation of March 2023. The CAA's online Airspace Change Portal includes up to date information and documents for this change, which can be accessed [here](#).

NATS (En Route) plc has also engaged with Jeppesen and airlines to ensure flight planning systems can support the change.

Dependencies

Deployments 3 & 4 are dependent on the iTEC platform installation, which is part of Initiative 15, with timescales yet to be confirmed.

Overall, Free Route Airspace deployment progress has been made in 2021 and the phased introduction of Free Route Airspace will lead to a further two deployments targeting November 2025 and November 2026 to complete roll out across the UK.

A CAP1616 Statement of Need Assessment meeting was held with the CAA in October 2021 to commence work on these deployments.

Benefits

The key benefit of Free Route Airspace delivery is an improvement of Upper Airspace efficiency. In line with requirements set out within the Airspace Modernisation Strategy and the UK Statutory Instrument, it will deliver airspace harmonisation at a European Union level, enabling operational and fuel consumption cost savings, whilst reducing CO2 emissions, in line with environmental objectives, set out within the Department for Transport's Air Navigation Guidance 2017.

During the Options Appraisal Phase II Stage, NATS (En Route) plc submitted information regarding anticipated deployment benefits, which can be accessed through the links provided under the '**Key Achievements**' section above. NATS (En Route) plc estimates that D1 deployment could deliver up to 3,314T of fuel benefit per annum, equating to c 10,500T per annum of CO2 benefit.

D2 benefit analysis undertaken by NATS (En Route) plc as part of its Stage 3B submission, estimates a range of potential fuel benefit between 152 and 481T of fuel per annum, equating to between 483 and 1153T of CO2 per annum, dependent on the scale of structural limitations implemented. As this deployment will be concurrent with the West Airspace Deployment and enhanced Systemized Airspace arrangements in the lower airspace, the actual value is likely to change this estimate, dependent upon the resultant option chosen.

Both D1 and D2 fuel and CO2 figures are enabled benefits, and therefore realized benefits are contingent on airline flight planning behavior.

Whilst benefit scoping of D3 and D4 is yet to be undertaken by NATS (En Route) plc, a specific project, named '*Borders and Central*', has now been initiated and is currently in the 'Feasibility and Options' stage to determine the scope of the change.

Risks to benefit realisation

That aircraft operators do not invest in the flight planning system upgrades required to use Free Route options effectively and maximise the benefits of implementation.

Full deployment of Free Route Airspace is dependent on the delivery of DP-En Route technology, which has suffered a number

Score: 12

(Likelihood:3) * (Severity:4)

of delays in deployment and therefore may not deliver in the required timescale to support Free Route Airspace.

Advanced Flexible Use of Airspace

3

FUA State Programme

UPPER AIRSPACE

Description: to increase airspace configuration options supporting more efficient use.		2020	➔	2021
3.1 New airspace structures	3.2 New procedures	3.3 Airspace management tools		
Timescale: 2022-24	Driver: UK Statutory Instrument / Airspace Modernisation Strategy			
Stage: Delivery	Mechanism: Flexible Use of Airspace State Programme Working Group			
Scope Established in 2016, the Flexible use of Airspace State Programme Working Group have developed the Advanced Flexible Use of Airspace concept and a co-ordinated plan, based on design principles to accommodate both civil and military user requirements, through improved management of Special Use Airspace and flexible airspace structures for commercial and military use. The current scope of this Initiative relates particularly to deployment of the Advanced Flexible Use of Airspace concepts in the upper airspace. The implementation of Advanced Flexible Use of Airspace is mandated by UK Regulation (EU) 716/2014. General Aviation Users interested in low level flexibility of using airspace volumes shall refer to Chapter 3 of this report. The main activities that will deliver this Initiative include: airspace changes and redesign of airspace structures to offer more flexible locations, in line with military requirements and civil traffic flows,				

- extending Airspace Management tools, processes, and data sharing, through access and use of the Local and Regional Airspace Management tool,
- implementing a new performance framework to provide statistics and trend analysis.

Key Milestones

Following some replanning as a result of the COVID-19 pandemic, NATS (En Route) plc launched the Airspace Management Enhancements project to support Advanced Flexible Use of Airspace delivery. In conjunction with the Ministry of Defence stakeholders, the programme of works to support airspace management tools development has been identified, planned, and progressed through 2021. That activity included development and implementation of military Airspace Change Proposals, including updates to Special Use Airspace, together with associated enhancements to airspace management processes.

Key milestones are broadly aligned to the Flexible Use of Airspace State Programme Working Group Reference Period 3 Performance Improvement and Delivery Plan, which has now been reviewed and updated. These include transition of key volumes of airspace into managed environments, now scheduled for Q2 2022, with full adoption of Local and Regional Airspace Management tool at Key Military Units for Q3 2022. There are also a number of Airspace Change Proposals in progress, to deliver these by 2023.

Key Achievements

Key achievements and areas of progress are listed below:

Ministry of Defence

- Airspace Trial for collective training complete with further use and updates to refine airspace.
- Launch of several Airspace Change Proposals to enhance and simplify airspace management across several Special Use Airspace including Military Training Areas and south coast danger areas (planned implementation from Q1 2022).
- Implementation of Joint Future Air Traffic Management Development Team sponsored changes including modernisation of south coast danger areas (July 2021).

- Launched review of future military requirements to develop planned airspace changes in NR23 for increasing military demand.

NATS (En Route) plc

- Local and Regional Airspace Management tool updated with additional capability to enable Free Route Airspace.
- Technical solution for extended access to Local and Regional Airspace Management tool developed (planned implementation Q2 2022).
- Progression of Business-to-Business connectivity with the Network Manager (planned implementation Q2 2022).
- Ongoing airspace management data integration with air traffic management systems (D-SESAR platform).

Risks

- The concept cannot be realised without improved utilisation performance, which relies on true interoperability, integration and commonality of tools, support systems and processes between the civil and military users.
- To mitigate against safety risks and enhance Collaborative Decision Making, integration of airspace management data to provide a level of automation is required.
- Due to the complexity of the programme and dependencies, any larger Ministry of Defence Airspace Change Proposal will not be delivered until after Free Route Airspace implementation.
- Lack of resource and funding availability may hinder implementation of the programme in the planned timescales. Mitigation activity is dependent on the NR23 plan agreement, for which NATS (En Route) plc is in the process of undertaking consultation engagement activity and Ministry of Defence resource to support development.

Benefits

The key benefit brought about by the deployment of Advanced Flexible Use of Airspace is efficient airspace management. It will make planning and sharing of airspace between agencies more collaborative and predictable. Reservation of any volumes of airspace needed for a particular military exercise or mission will be more efficiently tailored, thereby delivering operational efficiencies to the Ministry of

Defence, whilst minimising as far as possible any disruptive impact on other airspace users.

With that, additional airspace capacity will reduce the risk factors associated with traffic congestion and peaks in controller workload. Increasing the number of route options available to airspace users will allow air traffic controllers to manage more flights through the same sectors and aircraft operators will have the flexibility to plan and re-plan flightpaths in response to poor weather, segregated areas, and airspace restrictions.

The programme will further support delivery of environmental benefits, with aircraft having the flexibility to flight plan and fly more direct routes at more efficient altitudes and speeds, than with limited fixed waypoints, reducing emissions per flight and saving fuel.

Finally, with the military having efficient and effective access to suitably sized and sited volumes of airspace to complete its missions, information on actual planned utilisation of reserved airspace will be shared in real time, enabling airspace to be handed between users with minimal unutilised time.

Risks to benefit realisation

That the implementation of new airspace structures restricts the access of civil and/or military traffic to key routes or volumes of airspace, generating inefficiencies and capacity constraints in certain areas of the UK; and that Advanced Flexible Use of Airspace will not deliver sufficient airspace to facilitate military activity.

Score: 9

(Likelihood:3) * (Severity:3)

FAS Implementation South & North

4
and
5

ACOG

TERMINAL
AIRSPACE

Description: redesign of the terminal network in Southern England (#4), Northern England and Scotland (#5).

2020



2021

4.1 Terminal airspace redesign	4.2 New procedures	4.3 Not Applicable
Timescale: 2026+	Driver: CAA (Air Navigation) Directions / Airspace Modernisation Strategy / Government Policy	
Stage: Delivery	Mechanism: Airspace Change Organising Group	

Scope

Of the 15 initiatives in the Airspace Modernisation Strategy, two are known as Future Airspace Strategy Implementation – South, and Future Airspace Strategy Implementation – North (known as FASI-S and FASI-N respectively). These are complex airspace design programmes that require coordination between the different sponsors of airspace changes.

The CAA is directed to prepare and maintain a co-ordinated strategy and plan for the use of all UK airspace for air navigation up to 2040, including for the modernisation of the use of such airspace, under the Air Navigation Directions 2017.

The CAA and the Department for Transport have commissioned NATS (En Route) plc to lead the FASI-S and FASI-N programme to create a coordinated plan for airspace changes in the UK (or Masterplan for short). NATS (En Route) plc have established a separate and impartial unit, known as the Airspace Change Organising Group to carry out this task.

The sponsors involved in the FASI-S programme are NATS (En Route) plc (which manages upper airspace and its design) and the airports, which for FASI-S are: Biggin Hill, Bournemouth, Bristol, Cardiff, Exeter, Gatwick, Heathrow, London City, Luton, Manston, RAF Northolt, Southampton, Southend, and Stansted.

The FASI-S airspace change programme is particularly complicated due to the number of changes necessary to achieve modernisation over the south of the UK.

The FASI-N redesign of the airspace involves participation from NATS (En Route) plc and seven airports: Aberdeen, East Midlands, Edinburgh, Glasgow, Manchester,

Leeds-Bradford, and Liverpool. The Department for Transport and the CAA's co-commissioning for inclusion of the Northern airports within the Masterplan took place in 2021.

The programme paused in March 2020 due to the COVID-19 pandemic, as all of the FASI airports were compelled to refocus their attention on conserving liquidity and managing the crisis.

In March 2021, the Department for Transport announced that grant funding would be made available to airports to support the development of Airspace Change Proposals within the FASI-S and FASI-N programmes as part of the Government's commitment to supporting restart in the aviation sector and to decarbonisation. This grant, administrated by the CAA, enables eligible airspace change sponsors to restart their change proposals and progress through the first two stages of the regulatory airspace change process, CAP1616.

As part of the remobilisation of the programme, the Airspace Change Organising Group worked with the sponsors to integrate the outputs produced during Stages 1 and 2 of their Airspace Change Proposals into Iteration 2 of the Masterplan that has been delivered in December 2021 to the CAA for assessment.

Key Achievements

AIRSPACE CHANGE ORGANISING GROUP

Supporting Remobilisation and Re-establishing Airspace Change Organising Group's Organisational Structure & Governance

Following the announcement of the Department for Transport's grant funding in March 2021, the Airspace Change Organising Group has worked with the CAA and airport sponsors to ensure that the funding support package is allocated effectively and that the work across the Programme is phased to optimise the Masterplan delivery schedule. Prior to the COVID-19 pandemic, the Airspace Change Organising Group had finalised its organisational structure and established a central set of processes to drive delivery. However, considering the pandemic and the effect it has had on the programme and the wider aviation sector, the team has evolved. The governance arrangements and processes have been updated to ensure that the coordination activities remain efficient and effective.

Creating the Masterplan

The purpose of the Masterplan is to set out where airspace change could be taken forward, to provide benefits and to consider potential conflicts, trade-offs, and dependencies. The Masterplan does not set the detail of individual airspace designs or solutions. It will include a programme plan for the development of the individual changes that together will make up the Masterplan as well as an implementation plan for those changes. It will also potentially identify where any airspace changes could be needed to deliver a range of benefits, including to reduce noise, deliver air quality or fuel efficiency benefits or where more direct routes are possible that could reduce controlled airspace. **Criteria for the CAA to accepting the airspace change Masterplan** into the Airspace Modernisation Strategy, published in August 2021, are further described in Chapter 2 of this report. The CAA's acceptance of the Masterplan into the Airspace Modernisation Strategy makes the Masterplan, together with CAP1616, the legal basis against which individual airspace change decisions are made by the CAA.

Understanding Interdependencies and Integrating the Airspace Design

In 2021, the Airspace Change Organising Group started to work with the sponsors as they restarted their change proposals to define the nature of the interdependencies that exist and examine the potential solutions. With that purpose, the Airspace Change Organising Group has established Technical Coordination groups for 'deployment clusters' with clear Terms of Reference, to resolve technical design issues and brought together appropriately, applying lessons learnt from the working groups in situ pre-COVID-19. The Airspace Change Organising Group has also developed the methodology for identifying and assessing the impact of interdependencies, at a system level, for inclusion in the Masterplan. It has also developed the Terms of Reference for an airlines task force, to fully define the technology, procedures and airspace concepts needed to achieve the optimised use of Performance Based Navigation.

Demonstrating Impacts and Benefits

The Programme is expected to generate a range of benefits for a broad mix of stakeholder groups. Due the complexity of the Programme, it is possible that creating benefits that fall to one stakeholder group may at times lead to disbenefits for others. The trade-offs between benefits and disbenefits must be carefully managed and informed by widespread stakeholder engagement. Prior to the

COVID-19 pandemic, the Airspace Change Organising Group had started the production of a framework for quantifying and tracking the impacts and benefits of the component Airspace Change Proposals. The Benefits Framework will be incorporated into the Masterplan and continue to evolve as the sponsors move through the CAP1616 process and more information becomes available.

Stakeholder Engagement and Communications

The COVID-19 pandemic continued to impact the Airspace Change Organising Group's level of engagement in the first quarter of the year while the team focussed on securing the short-term funding necessary to restart the programme. During that time however, there were opportunities for the Airspace Change Organising Group to engage with key stakeholders, to reinforce the importance of airspace modernisation. As a result, a new website and social media channels was launched. The legacy 'Our Future Skies' information campaign, set up prior to the Airspace Change Organising Group's creation, has been discontinued, and a new platform [One Sky One Plan](#) has been developed to provide a publicly accessible entry point for those wishing to learn more about the programme.

Over the summer, Airspace Change Organising Group began its programme of stakeholder engagement around Iteration 2 of the Masterplan. In four initial sessions, Airspace Change Organising Group spoke to over fifty stakeholders that make up the Airspace Modernisation Strategy governance groups, to brief them on the development of the Masterplan. One-to-one follow up sessions took place and concluded in October. Airspace Change Organising Group have continued a programme of communications and engagement for the remainder of the year to promote its co-ordination role in the process, develop the Masterplan and demonstrate the importance of airspace modernisation for the future of UK's infrastructure. Summary of Airspace Change Organising Group's 2021 engagement activity has been set out within Table 1.1.1:

Table 1.1.1. Airspace Change Organising Group Stakeholder Engagement

2021 Engagement	
Group	Detail
Airports / NATS	Multiple dedicated engagement activities with all participating airport sponsors to help remobilise the programme including providing support for those sponsors who continued working on their Airspace Change Proposals during the programme pause. Engagement with a broad base of UK airports, airlines, and Air Navigation Service Providers at the Industry Coordination forum for the Airspace Modernisation Strategy (ICAMS). Regular engagement with airport communications teams.
Airlines	Dedicated engagement with airlines representatives as part of the Masterplan engagement and follow up sessions.
General Aviation and Remotely Piloted Aircraft System	Briefings to members of the General and Business Aviation Strategic Forum (GBASF) and the National Air Traffic Management Advisory Committee (NATMAC). Ongoing engagement with the Aircraft Owners and Pilots Association (AOPA), General Aviation Alliance (GAA) and its member organisations, on ACOG's role and objectives regarding airspace access and integration. Engagement with UK Research and Innovation and ARPAS on the potential for safe and efficient integration of UAS operations as part of the Programme. Dedicated engagement with GA and other airspace users as part of the Masterplan engagement and follow up sessions.
Community Representatives, Interest Groups and Local Government	Dedicated engagement with community representatives, airport consultative committees, devolved administrations and DfT's ANEG group as part of the Masterplan engagement sessions. b) A briefing was provided to the GLA's Environment Committee, on request, regarding the Airspace Change Programme and ACOG's coordination role. c) Briefings to the Luton Airport Consultative Committee and Heathrow Community Noise Forum on ACOG's role and the development of the Masterplan
Central Government	Written updates on the funding and progress of the Programme provided to key Government & parliamentary stakeholders. Regular updates provided by ACOG Steering Committee Chair to the Government's Airspace Strategy Board. Submission to DfT's Jet Zero consultation. Dedicated briefings for Members of Parliament.
Passengers, Businesses, and the Wider Economy	The Our Future Skies website and social media channels continued to make the case around airspace change and saw good levels of engagement from a range of stakeholders. The OFS site is being removed and a new information platform will be launched in the Autumn. Engagement with businesses and groups including London Chamber of Commerce and Industry and international couriers, UPS.
European stakeholders	Engagement with Senior Management at EUROCONTROL to ensure that the UK Airspace Change Programme maintains technical alignment as the Single European Sky initiative evolves. Engagement with colleagues from DARP (Dutch Airspace Redesign Programme) to share best practice and learnings.

FASI Sponsors

Majority FASI Airspace Change Proposal sponsors have remobilised their efforts on airspace change with the support from **The Future Airspace Strategy Implementation Programme Funding Support Package (FASI Grant)**, described in more detail within Chapter 2 of this report. Status of their progress against the various stages of assessment under CAP1616 has been summarised in Table 1.1.2:

Table 1.1.2. FASI Grant Recipients – Summary of Progress as of December 2021

Key						
Complete		On Track				
Not Started		Needs Attention				
		Major Issue				
Airport Airspace Change Proposal Sponsor	Stage 1B Design Principles	Stage 2A Comprehensive List of Options	Stage 2B Refining Options to Shortlist	Stage 2B Initial Options Appraisal	Stage 2 Gateway	Progress Areas
Bristol	Complete	Complete	On Track		Feb-22	Stage 2: Developing and accessing airspace design options
Cardiff	Complete	Complete	On Track		Feb-22	
Exeter	Complete	Needs Attention			Mar-22	
Edinburgh	Complete	On Track			Jul-22	
Glasgow	Complete	Complete	On Track		Jun-22	
Aberdeen	Complete	On Track			Sep-22	
Manchester	Complete	On Track			Jul-22	
East Midlands	Complete	Not Started			Mar-23	
Gatwick	Complete	Complete	On Track		Jul-22	
Stansted	Complete	Complete	On Track		Mar-22	
Luton	Complete	Complete	On Track		Mar-22	
London City	Complete	Needs Attention			Jun-22	
Biggin Hill	Complete	Needs Attention			Sep-22	Stage 1: Developing airspace design principles with representative stakeholders
Southampton	Complete	On Track			Jan-23	
Leeds Bradford	Needs Attention	Not Started			Feb-22	
Heathrow	On Track	Not Started			TBC	
Bournemouth	Needs Attention	Not Started			TBC	
Southend	Needs Attention	Not Started			TBC	

NATS (En Route) PLC

London Airspace Management Plan Deployment 1, part of NATS (En Route) plc's West Airspace Deployment project, established a revised pathway to deployment by splitting into two distinct Airspace Change Proposals, LD1.1 to support proposed network changes above 7000ft and progressing as a Level 2 Airspace Change

Proposal and the other, LD1.2, established to enable support to downstream changes, progressed as part of the Airspace Change Proposals being developed by Bristol, Cardiff, and Exeter. LD1.1 passed its Stage 3 (Consultation) submission in August and commenced an aviation stakeholder consultation on 6th September, running concurrently with the Free Route Airspace Deployment 2 consultation as deployment of these two projects will be concurrent. This enables the overall West Project to remain embedded within the FASI programme of change. NATS (En Route) plc remains committed to future FASI activities and the Masterplan Iteration 2 for all other low-level airspace change as planned within the FASI programme.

Manston

Following an unsuccessful gateway, the Sponsor is still at Stage 2 with the Airspace Change Proposal ACP-2018-75, documentation available [here](#). The Sponsor has been instructed to work with the Airspace Change Organising Group on its coordination requirements with other FASI Sponsors and it is currently planning a Stage 2 gateway assessment in April 2022.

RAF Northolt

The Airspace Change Proposal ACP-2018-66 is currently in progress and at Stage 2, with documentation available [here](#). There is a dependency with Iteration two of the airspace change Masterplan. It is anticipated that the Develop & Assess Stage 2 Gateway for this Airspace Change Proposal will be in June 2022.

Liverpool

The Airspace Change Proposal ACP-2015-09 is currently on pause at Stage 4, following a public consultation on a preferred airspace design with materials available [here](#). The Sponsor is currently working with the Airspace Change Organising Group and the Airspace Modernisation Strategy Co-Sponsors to determine how best to integrate their proposal into the wider programme, given the low-level and network interdependencies that exist with Manchester airport and NATS (En Route) plc respectively.