

Glasgow Airport FASI-N Airspace Change Proposal

Frequently Asked Questions

Date: 25th October 2021

Introduction

This frequently asked question document provides a short summary of information in advance of the Stage 2 workshops which will be held in November and December 2021. The document is intended as an optional pre-reading for stakeholder planning to attend the sessions.

Frequently Asked Questions

General

1. What is Airspace?

Airspace is the 'invisible infrastructure' in the sky which helps aircraft operate safely. It includes the flight paths that aircraft take when arriving and departing from an airport, which are usually the responsibility of an airport up to 7000ft, and the routes on the airspace network above 7000ft which are the responsibility of NATS.

Airspace can be controlled and uncontrolled; this means that in some areas there are restrictions on which aircraft and/or pilots can fly in the airspace to protect other airspace users such as commercial airliners. To enter controlled airspace, pilots must get permission from Air Traffic Control. There are different classifications of controlled airspace that have varying requirements. For more information about different types of controlled airspace, please see [here](#).

Airspace Change Policy and Regulation

2. What is Airspace Change?

Airspace change is the process through which flight paths, routes, controlled airspace boundaries and controlled airspace classification can be changed. The Department for Transport (DfT) is responsible for all aviation policy in the UK, including airspace. The Civil Aviation Authority (CAA) is responsible for its regulation and for the Airspace Change Process (see question 3) which all airports must follow where changes to airspace are proposed. Glasgow Airport is responsible for the design of any changes to flight paths into and out of the airport up to approximately 7,000ft, and NATS is responsible for changes to airspace above 7,000ft.

3. What is CAP1616?

The aviation industry is regulated by the Civil Aviation Authority (CAA) in the UK, and they ensure that the environmental impact of aviation on local communities is managed through efficient use of airspace. When changes to airspace are proposed, an airport is required to follow the CAA's Airspace Change Proposal (ACP) process, this is known as [CAP1616](#).

CAP1616 is a 7-stage process which places great importance on engaging and consulting on airspace proposals throughout the process with a wide range of stakeholders, including potentially affected communities.

Glasgow Airport are currently in Stage 2 of the CAP1616 process. More information on Stage 1 can be found on the CAA's Airspace Change Portal, [here](#).

4. What is the Airspace Modernisation Strategy?

The Airspace Modernisation Strategy ([AMS](#)), also known as CAP1711, is a document published by the DfT and CAA in December 2018. The document describes how the airspace within the UK is reaching capacity and due to the age of the design, includes features that restrict the aviation industry's ability to improve its operational and environmental performance.

The AMS sets out a new shared objective between the CAA and the DfT for modernising airspace which is to deliver quicker, quieter, and cleaner journeys and more capacity for the benefit of those who use and are affected by UK airspace.

5. What is Performance Based Navigation?

Performance based navigation (PBN) is a type of navigation that uses satellite-based technology. This is similar to the type of technology used in car sat-navs, or in GPS based sports watches. PBN is being introduced across the world and Glasgow Airport are required to implement it as part of meeting the requirements of the Airspace Modernisation Strategy (see question 3 above)

PBN improves the accuracy of where aircraft fly and offers opportunities for different flight path locations by moving away from the constraints of outdated conventional navigation using ground-based beacons. This helps improve operational performance, reduce delays, and improves resilience.

6. What is FASI-N?

Many of the airspace changes that the airports and NATS are required to deliver overlap. In the busiest areas of Southern England, Northern England, and Scotland the airspace changes have been grouped into two major programmes:

- Future Airspace Implementation (FASI) North: The fundamental redesign of the terminal airspace in northern England and Scotland that is based on the widespread adoption of satellite navigation procedures.
- Future Airspace Implementation (FASI) South: The fundamental redesign of the terminal airspace in Southern England.

The FASI North and South airports are responsible for upgrading their individual arrival and departure routes from the ground to 7000ft. NATS are responsible for redesigning the route network above 7000ft that guides traffic to and from the boundaries of the UK's airspace. The airports and NATS are working closely to ensure that their individual ACPs are aligned, and the final set of changes can be combined seamlessly.

7. Who are ACOG?

ACOG is the Airspace Change Organising Group, and they are the team tasked with coordinating the redesign of the UK's airspace (FASI-N & FASI-S programmes). ACOG was formed in 2019 and are a fully independent organisation within NATS, under the direction of the DfT and the CAA.

ACOG's role is to coordinate the delivery of key aspects of the AMS. The cornerstone of ACOG's work is to create and maintain the Airspace Masterplan, which will provide detailed information on the airspace design options under development, the overlaps between airports changes and the compromises and trade-offs that may need to be made to integrate each airspace change effectively. More information on ACOG can be found [here](#).

Glasgow Airport's Airspace Change Proposal

8. What is Glasgow Airport proposing and why?

Glasgow Airport is conducting an ACP to upgrade the airport's arrival and departure routes. It will cover a review of all routes from the ground up to 7000ft and will also include a review of the boundaries of controlled airspace.

Glasgow Airport is required to meet regulatory requirements to introduce routes and procedures compliant with PBN criteria and the requirements of the Airspace Modernisation Strategy.

In addition, the existing ground-based navigation aids, which routes at Glasgow are attached to, are being withdrawn as part of the national modernisation programme. This means that the routes are required to be updated to change the reliance from the current ground-based navigation to more advanced Global Navigation Satellite Systems (GNSS).

More information about Glasgow Airport's airspace change proposal can be found on the CAA's Airspace Change Portal [here](#).

9. CAP1616 Stage 1: What are Glasgow Airport's Design Principles?

At Stage 1B of the CAP1616 process, the following design principles were developed with stakeholders. For more information about Stage 1, please see our submission documents on the Airspace Change portal [here](#).

#	Design Principle
1	The airspace design and its operation must be as safe or safer than today.
2	Facilitate the growth in quicker, quieter and cleaner traffic by configuring the airspace to improve efficiency and meet the forecast demand for air transport.
3	Design the appropriate volume of controlled airspace to support commercial air transport, enable safe, efficient access for other types of operation and release controlled airspace that is not required.
4	Mitigate any future requirements for airborne holding for inbound traffic and holding on the ground pre-departure for outbound traffic.
5	Minimise the total adverse effects of aircraft noise and visual intrusion on physical and mental health and wellbeing.
6	Offer communities options for both noise concentration and noise dispersion through the use of predictable and transparent multiple route options and other respite methods that are possible within the technical ATC system, en-route network and procedural constraints.
7	The arrival and departure routes that serve Glasgow Airport below 7000ft should avoid noise sensitive areas and buildings, national parks, areas of outstanding natural beauty/National Scenic Areas and areas that are not currently affected by aircraft noise.
8	Mitigate the impacts on local communities that are currently affected by aircraft noise on final approach or the vicinity of the immediate climb out, where overflight is unavoidable.
9	Reduce complexity and bottlenecks in controlled and uncontrolled airspace and contribute to a reduction in airspace infringements.

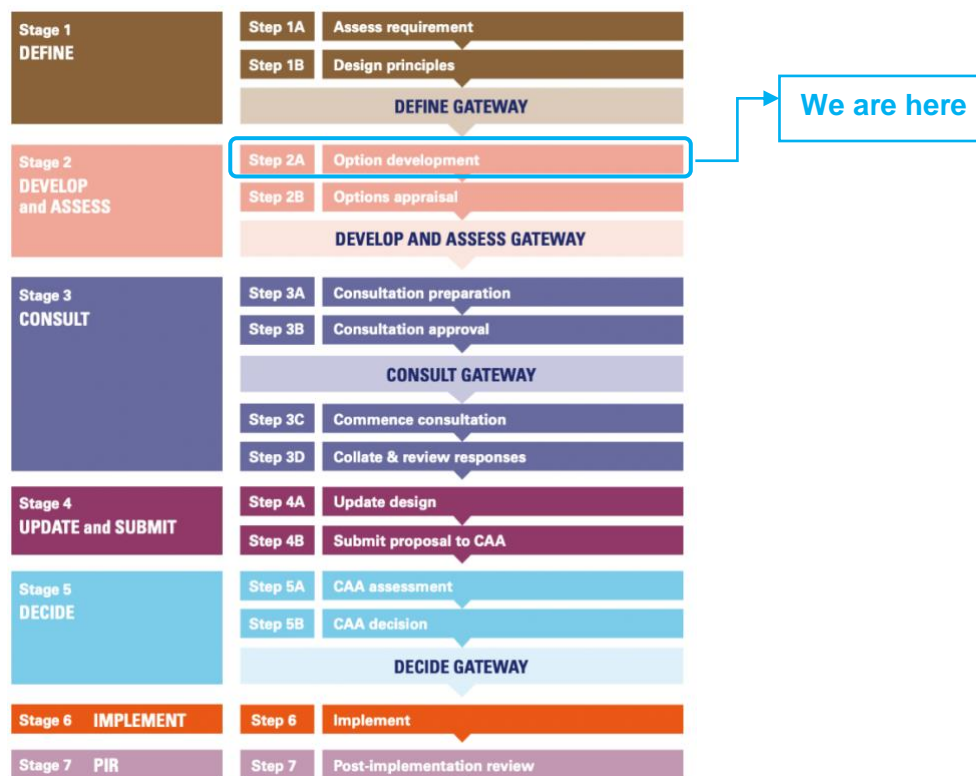
10	Collaborate with other Scottish airports and NATS to ensure that the airspace design options are compatible with the wider programme of lower altitude and network airspace changes being coordinated by the FASI North programme.
11	Routes to/from Glasgow and Edinburgh airports should be procedurally deconflicted from the ground to a preferred level in coordination with NATS Prestwick.
12	Minimise the growth in aircraft emissions, the further degradation in local air quality and adverse ecological impacts to address growing concerns about the impact of aviation on climate change.
13	Aircraft operating at Glasgow Airport should climb and descend continuously to/from at least 7000ft with a preference for the most environmentally beneficial option to be chose, if both cannot be achieved simultaneously.
14	Routes should be designed to meet a RNAV1 specification as a minimum in order to gain maximum benefit of the performance capabilities of the modern aircraft fleet operating at Glasgow Airport in line with the guidance provided in CAA CAP1385 on enhanced route spacing for PBN and provide sufficient resilience and redundancy against Global Navigation Satellite System (GNSS) failure.
15	The GLA ACP accords with the CAA's published Airspace Modernisation Strategy (CAP1711), any current or future plans associated with it and all other relevant policies and regulatory standards.

As part of our CAP1616 Stage 1 work, where we developed the Airspace Change Design Principles, the CAA mandated that the airport include a design principle around the AMS (DP15).

These Design Principles will be used throughout Stage 2A when we are developing our comprehensive list of options and then evaluating the performance of these options (See question 10 for more details)

10. Where is Glasgow Airport in the Airspace Change Process?

We are currently in Stage 2 of the 7-stage CAP1616 process which is called 'develop & assess'. As part of Step 2A, Options Development, we are developing a first comprehensive list of options which address the Statement of Need and align the design principles from Stage 1. More information on Stage 1 can be found [here](#).



Following the development of the initial comprehensive list of options, we will engage with the same Stakeholders engaged at Stage 1B, to ensure that they are satisfied that the design options are aligned with the design principles and that we have properly understood and accounted for stakeholder concerns specifically related to the design options.

11. When can we see the flight path options?

During Step 2A we are required to engage with the same stakeholders we engaged with during Stage 1 on our comprehensive list of options. However, these options are in the early stages of development and the CAP1616 process requires us to engage with stakeholders prior to any evaluation or appraisal. Towards the end of Stage 2, Glasgow plan to run additional engagement with stakeholders to update on the outcome of the evaluation and appraisal work.

During Stage 3 Glasgow Airport will hold a full public consultation. It is during this stage that the airport will present flight path options and undertake detailed quantitative appraisal of the benefits and impacts. At this stage the public will have the opportunity to see and understand what is being proposed and respond to the consultation.

12. How will airspace change options be assessed?

We will initially qualitatively assess options against each Design Principle as part of the Design Principle Evaluation. This takes place at Stage 2A after we have developed our comprehensive list of options and tested these with stakeholders.

In Step 2B, we will undertake an Initial Options Appraisal of our options which is a more detailed qualitative appraisal. The outcomes of Step 2A and 2B will be published on the Airspace Change Portal following submission to the CAA.

At Stage 3, as options are developed and refined into detailed designs, we will build upon the Initial Options Appraisal with quantitative analysis as part of the Full Options Appraisal. The material published as part of the consultation will include a Full Options Appraisal. This will include a full analysis of the option(s) being proposed by Glasgow Airport.

More information about the options appraisals can be found in Appendix E of [CAP1616](#).

13. When can I have my say?

Stakeholders who have already been part of the process will continue to be engaged throughout stage 2. Our stage 2 documents will be published on the [Airspace Change Portal](#) following submission to the CAA.

The wider public will be informed of the proposals during Stage 3, with a full public consultation. A key element of this consultation is that it takes place when proposals are at a formative stage, so that feedback from the consultees can potentially impact the proposal.

Glasgow Airport are expecting the public consultation to take place in Q1-Q2 2023.

14. Will there be a public consultation?

Yes. At Stage 3 of the CAP1616 process we will hold a public consultation. This is anticipated to take place in Q1-Q2 2023.

15. Where can I find out more information?

You can find out more about this airspace change on the CAA Portal [here](#). You can register an email address on the site to receive email updates about this airspace change proposal.

The Glasgow Airport website is also updated with information about the airspace change and can be used to register your interest in the ACP: <https://www.glasgowairport.com/airspace/>