

Doncaster Sheffield Airport Proposal to introduce RNAV Standard Instrument Departure and Instrument Approach Procedures

CAP 1865

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Civil Aviation Authority
Aviation House
Beehive Ringroad
Crawley
West Sussex
RH6 0YR

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Enquiries regarding the content of this publication should be addressed to:

Airspace and ATM Aerodromes, Safety and Airspace Regulation Group, Aviation House, Beehive Ringroad, Crawley West Sussex, RH6 0YR

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Chapter 1

Executive summary

Objective of the Proposal

1. The NATS VOR rationalisation programme, which will require the removal of some of the navigation infrastructure used by aircraft flying Doncaster Sheffield Airport's current departure procedures, has led the sponsor to propose replacing the current conventional Standard Instrument Departures routes (SIDs) and Preferred Departure Routes (PDRs) with five RNAV 1 SIDs and Omni Directional Departure routes (ODDs). These proposed procedures do not rely on the ground-based navigation infrastructure that is being withdrawn from service.
2. In order to provide protection to aircraft flying on these procedures, the sponsor has also proposed additional controlled airspace in the form of an additional control area (CTA-13) as well as the lowering of the base of an existing airway.
3. To provide redundancy to the primary means of instrument approach, the sponsor has also proposed the introduction of RNAV GNSS Instrument Approach Procedures (IAPs), which replicate as far as possible the existing Instrument Landing System (ILS) procedures. These would mainly be used in the unlikely event that the ILS is unavailable.

Summary of the decision made

4. The CAA has decided to approve the following changes to the structure of UK airspace:
5. The CAA approves the five proposed RNAV 1 SIDs, two RNAV GNSS IAPs and two ODDs.
6. The CAA approves CTA-13 as Class E + TMZ/RMZ airspace from FL85-105 as proposed.
7. The CAA approves the lowering of a portion of airways L60/L603 to FL125 as proposed.

Next steps

8. The CAA's Post Implementation Review (PIR) of the changes approved by the CAA in this decision will commence approximately one year after implementation of those changes. It is a requirement of the CAA's approval that the sponsor provides data required by the CAA throughout the year following implementation to carry out that PIR.
9. The sponsor is required to:
 - a. Provide detail on the volume of traffic utilising the new procedures
 - b. Provide detail on the number and type of aircraft movements within CTA 13, broken down by month.
 - c. Provide detail on the number of aircraft refused permission to enter CTA 13 and the reasons for the refusal.
 - d. Provide all feedback received from airspace users
 - e. Collate related stakeholder observations (enquiry/complaint data) and present it to the CAA. Any location/area from where more than 10 individuals have made enquiries/complaints must be plotted on separate maps displaying a representative sample of:
 - i. aircraft track data plots; and
 - ii. traffic density plots

The plots should include a typical days-worth of movements from the last month of each standard calendar quarter (March, June, September, December) from each of the years directly preceding and following implementation of the airspace change proposal.

10. The PIR is the seventh stage of the CAA's airspace change proposal process (set out in [CAP 725](#), the Guidance on the Application of the Airspace Change Process) and will consider whether "*the anticipated impacts and benefits, set out in the Airspace Change Proposal, have actually been delivered*". The policy states that if those impacts and benefits have not been delivered then the review should "*ascertain why and ... determine the most appropriate course of action*". (See Annex C paragraph 22 for more information.)

Chapter 2

Decision Process and Analysis

CAA's Role

The CAA's role in airspace change decisions, the legal framework, the policy background and relevant UK international obligations

11. It is necessary to understand the CAA's role in airspace change decisions, the legal framework, the policy background and relevant UK international obligations in order to understand the decision[s] the CAA has taken.
12. This information is set out in Annex C.

Aims and Objectives of the proposed change – CAA decision on objective

13. Introduce departure procedures to allow aircraft to depart from Doncaster Sheffield Airport once the Gamston VOR navigation aid has been withdrawn from service.
14. Introduce RNAV GNSS IAPs to provide redundancy to the existing ILS IAPs.
15. Design procedures which aim to replicate the areas overflown currently where design criteria permits.
16. Take advantage of the improved navigation performance that RNAV SIDs provide over conventional departure procedures to limit the number of people overflown.
17. Introduce the minimum additional controlled airspace necessary to safely contain the proposed procedures.
18. In this part of the record of the CAA's decision, the CAA formally records that these aims and objectives of the change proposed are objectives which it endorses and, subject to the terms of the regulatory and policy framework set out in Annex C, the CAA will seek to approve changes to the UK airspace structure that meet the aims and objectives of this proposal.

Chronology of Proposal Process

Framework Briefing

19. The Framework Briefing took place on 01 February 2017 at CAA House in London.
20. The sponsor set out the airspace issues which need to be resolved and how they intended to engage and consult with stakeholders to establish the most effective solution to the identified issue. The sponsor explained their desire to replicate as far as practicable, the existing procedures.
21. It was agreed that the proposal would be assessed against the guidance as set out in CAP 725.
22. The initial schedule of activities was agreed by the sponsor and the CAA.

Consultation

23. The sponsor published their initial consultation materials on their website.
24. The initial consultation began on 25 September 2017. The consultation period was extended by one week from the original planned duration to allow for further community engagement and to take into account the festive period. The consultation concluded on 22 December 2017.
25. 174 stakeholders were directly invited to respond to the consultation. Audiences covered both the aviation community as well as the local communities through various groups.

Submission of Airspace Change Proposal

26. The CAA received the sponsor's Airspace Change Proposal on 01 May 2018 along with the supporting documentation.
27. Notwithstanding that the CAA introduced a new airspace change process on 2 January 2018 (known as CAP 1616) this ACP has been developed and is assessed in accordance with the CAA's airspace change process known as CAP 725. This is in accordance with a transition policy developed with the Department for Transport and consulted on in 2016 and confirmed in 2017.

Additional Consultation

28. Having assessed the documentation the CAA indicated to the sponsor that the proposed classification for CTA-13 was disproportionate to the anticipated use of the airspace. The CAA requested that the sponsor reconsider the options for utilising a less restrictive airspace classification. The sponsor indicated that

they would re-consult on the classification of CTA-13 and the CAA wrote to the DfT to confirm they were content for the proposal to remain on the CAP 725 process, given that further consultation was taking place. The CAA wrote to the DfT on 27 March 2019 and received the response from the DfT on 01 April 2019 confirming that the proposal could remain on the CAP 725 process.

29. The sponsor undertook the additional consultation between 10 May 2019 and 7 June 2019. The options considered in the consultation were: Classes D (as per the original proposal), E, E+RMZ, E+TMZ and E+RMZ/TMZ. As the original consultation had covered the establishment of CTA-13, Class G was not included as an option (i.e. the effective removal of CTA-13). The CAA again confirmed with the DfT in November 2019 that the proposal could remain on the CAP 725 process now that the sponsor had indicated their proposed selection for the classification of CTA-13.

Submission of Amended Airspace Change Proposal

30. Having The revised airspace change proposal was received by the CAA on 09 September 2019, which included an amended proposal for the classification of CTA-13 as Class E + TMZ/RMZ.

Documents considered by the CAA

31. In assessing the proposal and making this decision, the CAA has taken account of:
 - a. ACP Part A Executive Summary
 - b. ACP Part B Operational Report
 - c. ACP Part C Environmental Review
 - d. ACP Part D Overview of Stakeholder Consultations
 - e. ACP Part E Summary
 - f. ANSPs and Operators Focus Group Report
 - g. Hazard Identification (HAZID) Brief Presentation
 - h. Hazard Identification (HAZID) Report
 - i. Other Airspace Users Focus Group Report
 - j. RNAV Departure and Approach Procedures Focus Group Presentation
 - k. Original Consultation Document
 - l. Original Consultation Responses

- m. Original Consultation Report
- n. Supplementary Airspace Consultation Brief
- o. Supplementary Consultation Responses
- p. Framework Brief
- q. Equipage and capability survey report
- r. MoD LoA Meeting Report
- s. Noise Assessment
- t. ACP Emissions results
- u. DEMETER Study
- v. Doncaster Undertaking to Promulgate Access Arrangements

CAA Analysis of the Material provided

32. As a record of our analysis of this material the CAA has produced:

- An **Operational Assessment** which is designed to brief the decision maker whether the proposal is fit for purpose. This assessment contains:
- The CAA's assessment of the airspace change proposal justification and options considered.
- The CAA's assessment of the proposed airspace design and its associated operational arrangements. An assessment of the design proposal is produced to illustrate whether it meets CAA regulatory requirements regarding international and national airspace and procedure design requirements and whether any mitigations were required to overcome design issues.
- The CAA's assessment of whether adequate resource exists to deliver the change and whether adequate communications, navigation and surveillance infrastructure exists to enable the change to take place.
- The CAA's assessment of whether maps and diagrams explain clearly the nature of the proposal.
- The CAA's assessment of the operational impacts to all airspace users, airfields and on traffic levels and whether potential impacts have been mitigated appropriately.
- The CAA's conclusions are arrived at after a CAA Case Study. An Operational Assessment is completed for all airspace change proposals