

ROYAL AIR FORCE NORTHOLT



**AIRSPACE CHANGE PROPOSAL
STAGE 1B SUBMISSION TO THE
CIVIL AVIATION AUTHORITY**

Roles

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ROYAL AIR FORCE NORTHOLT AIRSPACE CHANGE PROPOSAL

STAGE 1B

DESIGN PRINCIPLES

Introduction

1. UK airspace has become increasingly congested, especially in the south east of the country, and the government has directed a modernisation programme take place to ensure best use of the available airspace. The government's vision on airspace modernisation is covered in CAP 1711¹ and it is being overseen by the Department for Transport and the Civil Aviation Authority (CAA). This strategy requires the UK's airspace to undergo a re-structure, in order to cater for increased demand and provide greater efficiencies.
2. The modernisation programme is being run in accordance with CAP1616², which is a CAA-sponsored document that lays out how an Airspace Change Proposal (ACP) should be run. All airports and airfields taking part in this modernisation programme must follow the CAP 1616 process.
3. Royal Air Force (RAF) Northolt's location within the London Terminal Manoeuvring Area means that it is intrinsically linked to any changes that take place within that area. As a result of the modernisation strategy, the Future Airspace Strategy Implementation South group of airports, of which RAF Northolt is a member, is coordinating a series of complimentary ACPs to introduce efficiencies to arrival and departure routes, improve flight efficiency and connect with the London Airspace Management Programme led by NATS.
4. RAF Northolt's location also means any Heathrow expansion will impact on both airfields, and this therefore requires addressing as part of any airspace re-structure. RAF Northolt must be able to continue to operate in the years ahead and implementation of this ACP will future-proof RAF Northolt's position within the London Terminal Manoeuvring Area and the national airways en-route network.

Aim

5. The aim of this document is to set out how RAF Northolt has drawn up and refined a set of design principles that will be used to guide the redesign of its airspace. It demonstrates that RAF Northolt has met the requirements laid out in CAP1616 for Stage 1B and is ready to move on to Stage 2 of the CAP1616 process.

RAF Northolt Overview

6. RAF Northolt is the RAF's strategic London airfield. It is located just outside South Ruislip in West London and it is used by both military and civilian aircraft. As the closest military airfield to central London, it plays a key role in the RAF's support to national security, as well as

¹ Airspace Modernisation Strategy. December 2018.

² Airspace Design: Guidance on the regulatory process for changing airspace design including community engagement requirements. November 2018.

providing an airhead for government and VIP moves in and out of the capital. RAF Northolt is part of Number 2 Group, a higher headquarters based at RAF High Wycombe.

7. RAF Northolt is the home of 32 (The Royal) Squadron, which currently operates the BAe 146 aircraft and the Leonardo GrandNew AW109SP helicopter. These two aircraft provide the backbone of government and VIP moves in and out of London and, with the ongoing Brexit negotiations, have been particularly busy in recent months. RAF Northolt has provided frequent flights for the Prime Minister, senior ministers and staff, often with only a day's notice or less, which has required flexibility by both the airfield and 32 (The Royal) Squadron. RAF Northolt has also been used as a temporary base for various aircraft types in matters of national security. This was seen during the London Olympics in 2012 when four Typhoon fighter aircraft were based there to provide the Combat Aircraft element of the national security plan to this major international event. RAF Northolt occasionally sees visits by larger military transport aircraft (C17, A400M and C130), again in support of wider governmental activity in the capital.

8. Capped at 12000 moves per annum, RAF Northolt's commercial flying takes place between 0800-2000 Mon-Fri, 0800-1500 Sat and 1200-1900 Sun. The type of civilian aircraft that normally use RAF Northolt varies considerably and ranges from the Cessna Citation to the Bombardier Global Express. The aircraft operators predominantly serve the business community, with no scheduled flights or chartered airline operations. There are no plans to increase either the number of moves per annum or the hours of commercial activity.

Project Progress

9. RAF Northolt began its ACP in 2018 and it is currently in Stage 1 of seven stages. The first stage of the ACP is divided into Stage 1A, 'Assess Requirement' and Stage 1B, 'Design Principles'. To meet the requirements of Stage 1A, RAF Northolt produced a Statement of Need, outlining the rationale for the redesign of its airspace, and presented it to the CAA at an assessment meeting on 24 January 2019. The CAA accepted the Statement of Need and agreed that RAF Northolt could progress on to Stage 1B and define its design principles³.

Stage 1B Project Participants

10. **Project Team.** A project team, consisting of personnel from RAF Northolt, Headquarters Number 2 Group at RAF High Wycombe and Defence Aviation and Air Traffic Management (DAATM), has been responsible for the development of Stage 1B of the ACP.

11. **Contractors.** Specialist focus group work was contracted to 'Stonehaven'.

Identification of Stakeholders

12. **Geographical Area.** The potential geographical area covered by the RAF Northolt ACP is considerable and stretches south to Hayes, north to St Albans, east to the M11/M1 junction and west to Henley. This area was identified based on inbound criteria of 7000 ft to ground level, with a continuous glidepath of 3 degrees. The arcs are based on extended centrelines and take into account the close proximity of Heathrow airport to the south. A map showing the potential geographical area covered by the RAF Northolt ACP is at Annex A.

³ <https://airspacechange.caa.co.uk/PublicProposalArea?plD=50>

13. **Stakeholder Classification.** The project team conducted a thorough assessment of all the organisations and people with links to RAF Northolt and identified numerous stakeholders in this geographical area with very differing requirements. They could, however, be divided into 3 distinct groups: other airfield operators, the RAF Northolt user community and those affected by the operation of RAF Northolt as an airfield. A full list of RAF Northolt ACP stakeholders is at Annex A.

Development of RAF Northolt's Design Principles

14. **Initial Scoping Work.** The project team held a technical workshop on 11 December 2018, when current Ministry of Defence (MoD) and civilian users of the airfield were invited to discuss the technical aspects of RAF Northolt's airspace requirements⁴. Once the CAA approved the Stage 1A submission, the project team created an initial list of potential design principles that was based on RAF Northolt's operating requirements and through consideration of design principles that had been used in other ACPs.

15. **Focus Groups.** Two focus groups were held on 5 February 2019 by 'Stonehaven' on RAF Northolt's behalf. The use of focus groups enabled engagement with the local community through a targeted audience that was selected by Stonehaven using a standard market research approach⁵. The focus groups also ensured RAF Northolt was able to reach those members of the community who might not normally engage with the station or with their residents' associations. The focus groups were asked to consider the initial draft design principles⁶, suggest amendments and additions and highlight any issues or concerns. The feedback from the focus groups allowed the draft design principles to be refined, prior to being sent out to all stakeholders for comment.

16. **Distribution of Draft Design Principles.** Each set of stakeholders was approached, to seek its views on the draft design principles, with engagement starting on 22 March 2019 with letters sent to Members of Parliament and finishing on 2 May 2019 with a final presentation to a residents' association. Depending on the stakeholder, RAF Northolt either wrote a letter or email, held a meeting or workshop, or gave presentations and held discussions. In addition, to increase the reach of the engagement, hard and soft copies of the draft design principles were provided to the residents' associations for distribution to members who were not present at their meetings. A timeline of engagement with all stakeholders is at Annex B. A detailed breakdown of the engagement with each stakeholder, including MS PowerPoint presentations, copies of written communications and minutes of meetings, is at Annex C.

17. **Stakeholder Feedback.** All stakeholders had a minimum of 3 weeks to comment on the draft design principles, with replies accepted up until 31 May 2019⁷. This enabled residents' associations to pass on the design principles to their communities after they had received presentations from the RAF Northolt team. RAF Northolt received 43 replies from across its stakeholder community. Copies of all replies received are at Annex D.

⁴ See Minutes at Annex C-16 to C-19.

⁵ See Enclosure 1 page 3.

⁶ See Enclosure 1 pages 16-17.

⁷ The original planning date for submission of Stage 1B to the CAA was 31 May 2019. The potential for a change of date for submission to 1 July 2019 was raised during the Stage 1A assessment meeting on 24 January 19 and confirmed by the CAA by email on 5 March 2019. The additional time available was used to extend the engagement period.

Design Principle Adjudication

18. **Operational and Safety Requirements.** The ACP must ensure that any new airspace structure and routes are safe. In addition, RAF Northolt is required to ensure that, at the end of its airspace change process, it can meet its current commitments and future Defence requirements⁸. Stakeholders were informed that two design principles covering these requirements would be included in RAF Northolt's submission and did not need comment as they were deemed a priority.

19. **Moderation of Design Principles.** Three noise design principles have been removed due to inconclusive feedback from stakeholders⁹. One additional noise design principle has been added as a result of feedback from Heathrow and Gatwick airports¹⁰. The following general points were of note from the stakeholder engagement and are drawn from Annex D, except where referenced separately:

- a. **Local Councils and Residents' Associations.** It was identified that some local councils and residents' associations did not want to see airspace freed up, only for it to be handed over to neighbouring airports, specifically Heathrow. Emissions and the environmental impact were also a cause of concern and respondents wanted them restricted or reduced. Equally, respondents were keen to see aircraft noise and the number of people affected by it minimised.
- b. **Airports.** Airports recognised and placed importance on the need to limit the impact of noise on communities. This was a consistent approach from all airports, regardless of size.
- c. **General Aviation.** General Aviation placed importance on reducing the amount of controlled airspace.
- d. **RAF Northolt User Community.** Only one reply was received from the commercial operators at RAF Northolt, which supported the draft design principles without change. MoD respondents highlighted the requirement for military aircraft without Performance-Based Navigation¹¹ to be able to continue to use RAF Northolt. Helicopter routes would also need to be taken into consideration.

Proposed Design Principles

20. Once the project team had reviewed the feedback, RAF Northolt wrote to those stakeholders¹² who had responded with the finalised list of design principles that it intended to submit to the CAA. The letter detailed the changes that had been made to the design principles as a result of the stakeholder engagement. It also explained which design principles proposed by stakeholders had not gone forward in this submission, along with the rationale for this. A copy of that letter is at Annex C-47 and the letter also forms the body of Annex E.

⁸ As military aircraft come to the end of their service life, replacement aircraft may need to operate at RAF Northolt. This applies, in particular, to the BAe 146, which is due to be replaced by 2024. There are no plans to increase civilian aircraft movements above 12000 per annum.

⁹ See Annex E.

¹⁰ Heathrow suggested "avoid overflight of communities with multiple routes from different airports", which was a design principle which reflected feedback from its communities. RAF Northolt has now included a design principle covering this. See Annex E.

¹¹ For an explanation of Performance-Based Navigation see <https://www.caa.co.uk/Performance-based-navigation/>

¹² RAF Northolt did not enter into individual correspondence with residents. The letter was sent to organisations, such as local councils and residents' associations, with a request that it be distributed amongst their members as required.

21. In the table below, RAF Northolt lists its design principles for its ACP. Design principles 1 and 2 are prioritised above all others. There is no priority accorded to the remaining design principles.

Proposed Design Principles	
1.	Must be safe
2.	Must ensure continuation of military and governmental operational activity
3.	Should minimise impact on other airspace users
4.	Should facilitate design using modern navigational technology
5.	Should facilitate operational efficiencies to maximise benefits to as many stakeholders as possible
6.	Should minimise fuel and greenhouse gases
7.	Should minimise the impact of aircraft noise by:
	a. Minimising the number of people newly overflowed
	b. Minimising the total number of people affected by noise
	c. Where possible minimise overflight of communities with multiple routes

Summary

22. RAF Northolt has drawn up a series of design principles for its airspace change proposal for Stage 1B that has been subjected to thorough and rigorous scrutiny by its stakeholders. A comprehensive engagement programme involving briefings, meetings and written communications has provided all interested parties with the opportunity to input into the process. All comments have been considered and, where proposals have not been taken forward, an explanation has been provided, both in this submission and directly to the stakeholder(s) concerned. RAF Northolt believes it has met the requirements of the CAP1616 process for the DEFINE Gateway and looks forward to receiving CAA endorsement to move on to Stage 2.



Annexes:

- A. Stakeholders in the RAF Northolt Airspace Change Process.
- B. Stakeholder Engagement Timeline.
- C. Stakeholder Engagement Correspondence.
- D. Stakeholder Feedback.
- E. Rationale Behind RAF Northolt Design Principles.

Enclosures:

- 1. Airspace Strategy Stakeholder Engagement – Stonehaven Report of Focus Groups.