

Modernising Midlands Airspace

Stage 1: Define
ACP-2025-013

NATS

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Change History

Issue	Month Year	Change in this issue
Version 1.0	August 2025	Submit to CAA

Roles

Action	Role	Date
Produced	Airspace Change Specialist Operations Transformation	August 2025
Reviewed Approved	Airspace Implementation Manager Operations Transformation	August 2025
Reviewed Approved	Airspace Concepts Manager Operations Transformation	August 2025

Referenced Documents

Ref Num	Name and Link	
1.	CAP 1711 Airspace Modernisation Strategy	Link
2.	CAP 1616 Airspace Change Process	Link

1. Introduction

1.1. Background

- 1.1.1. For this ACP, Midlands Airspace refers to the airspace sandwiched between the Manchester Terminal Maneuvering Area (MTMA) and London Terminal Maneuvering Area (LTMA).
- 1.1.2. This is a complex area of airspace, with 2 primary flows of traffic to the north and south which traverse the 'spine' of the country, carrying a high volume of traffic.
- 1.1.3. Current capacity within Midlands Airspace is restricted by the high level of controller workload, driven by extensive use of tactical intervention required to maintain safety.
- 1.1.4. Separate ACPs are underway to modernise both the LTMA (ACP-2017-04) and the MTMA (ACP-2019-77) which will introduce systemised routings within the TMAs.
- 1.1.5. The target implementation date for this ACP is 25 November 2027 (AIRAC 12/2027).

1.2. Aims / Objectives

- 1.2.1. The aim of this ACP is to optimise the route network within the Midlands Airspace in advance of the MTMA and LTMA changes¹, in line with the Airspace Modernisation Strategy (AMS; CAP1711, Ref 1).
- 1.2.2. The key objectives are:
 - to optimise the airspace to enhance route capacity
 - reduce complexity and controller workload
 - provide environmental efficiencies where possible

1.3. Airspace Change Process

- 1.3.1. This document forms part of the document set required in accordance with the requirements of the UK Civil Aviation Authority (CAA) CAP1616 Airspace Change Process, Stage 1 (Ref 2).
- 1.3.2. Following the Assessment Meeting, this Airspace Change Proposal (ACP) has been provisionally assessed by the CAA as a Level 2 change.
- 1.3.3. The change sponsor for this change is NATS En Route Limited (NERL).

¹ MTMA implementation not before 2028; LTMA changes not before 2029

2. Current Day Scenario

2.1. Airspace Design – Route Structure

- 2.1.1. The airspace in scope is between FL70 - FL460. Air Traffic Services are provided by NERL (NATS En Route Limited).
- 2.1.2. Figure 1 shows the current airspace design and traffic density for a typical busy week (August 2024). The current design is predicated on the use of ground based navigational aids, with routes converging at HONILEY (HON), DAVENTRY (DTY), and TRENT (TNT) VORs (circled).
- 2.1.3. Routes are not deconflicted by design, so traffic is routinely dispersed from ATS routes using headings, requiring a high level of controller intervention.
- 2.1.4. The airspace is split into two main components; the ATS routes on the western section are utilised for predominantly southbound traffic, and the ATS routes on the east for predominantly northbound traffic.

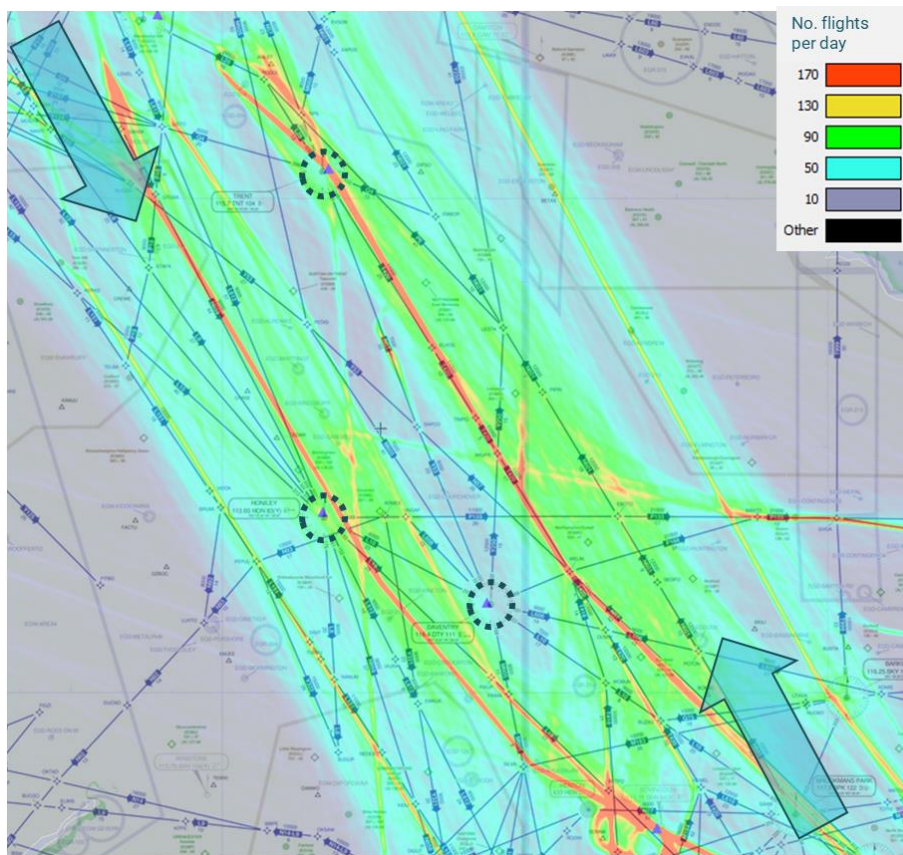


Figure 1 Extant ATS routes and traffic flow density - 1-7 August 2024

Southbound traffic includes:

- arrivals into LTMA, Wessex Group, Solent Group and EGLF airfields from the north
- departures from MTMA, Birmingham, East Midlands to the south/east
- departures from Northern UK/ Irish airfields to the south
- southbound London Flight Information Region (FIR)/ Upper Information Region (UIR) overflights

Northbound traffic includes:

- departures from LTMA, Wessex Group, Solent Group and EGLF airfields to the north
- arrivals into MTMA, Birmingham, East Midlands from the south/east
- arrivals into Northern UK/Irish airfields from the south
- northbound London FIR/UIR overflights

2.1.5. ATS routes, flight planable direct routes (DCTs) and STARs (Standard Terminal Arrival Routes) form the basis of the routing network, as shown in Figure 2.

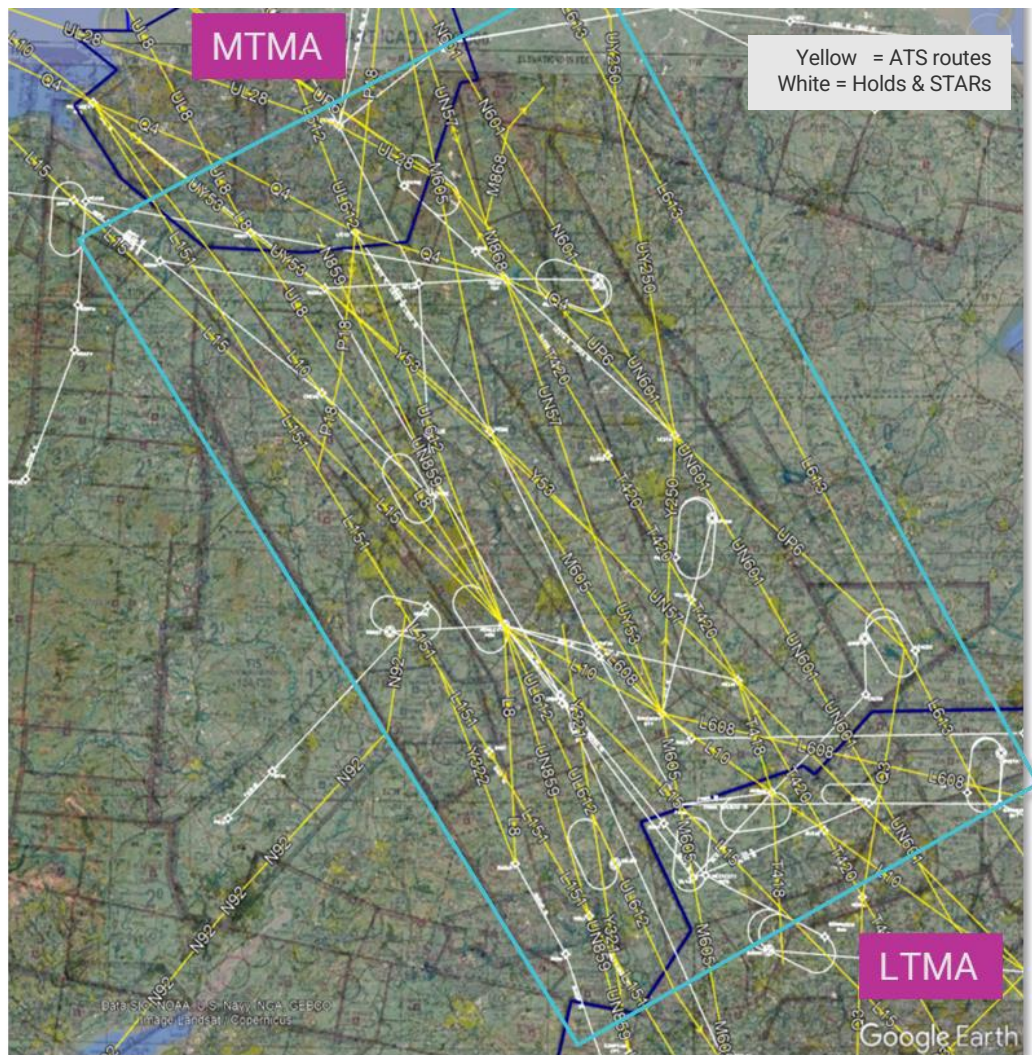


Figure 2 Extant airspace design - Midlands Airspace

2.1.6. The primary ATS routes within scope of this proposal are listed in Table 1.

Table 1 Primary ATS routes in scope of the change proposal

ATS Routes	
Primary ATS Routes within scope	L8, UL8, L10, L15, L151, L28, UL28, L608, L612, UL612, L613, M605, UM605, M868, UM868, N57, UN57, N859, UN859, N601, UN601, N92, P6, UP6, P18, Q3, Q4, UQ4, T418, T420, Y250, UY250, Y321, Y322, Y53, UY53

2.1.7. The proposed changes will require connectivity with other ATS routes and DCTs within the wider network, which may require some route realignments as part of this change, so the change may not be limited to these routes.

2.1.8. Arrivals to MTMA, LTMA, and the Midlands airports connect to the network via STARs. This change will have no impact below 7,000ft but will actively seek to optimise routes which may require modifications to STARs within the network to maximise their efficiency.

2.1.9. The network will continue to provide connectivity to current network departure routes; no changes are expected to airport Standard Instrument Departures (SIDs) and there are no changes below 7,000ft.

2.2. Airspace Design – Airspace Structures

Controlled Airspace

2.2.1. The extant airspace is controlled up to FL245, with Daventry (DTY) CTAs to FL195 and Midlands CTA FL195 – FL245. DTY CTA base levels vary as shown in Figure 3.

Airspace Classification:

- Midlands CTA: Class C airspace FL195 - FL245
- Daventry (DTY) CTA 1–CTA 20: Class A airspace: various bases up to FL195
- Daventry (DTY) CTA 21–CTA 25: Class C airspace: various bases up to FL195
- Airspace outside of CTA volumes FL195+: Class C airspace

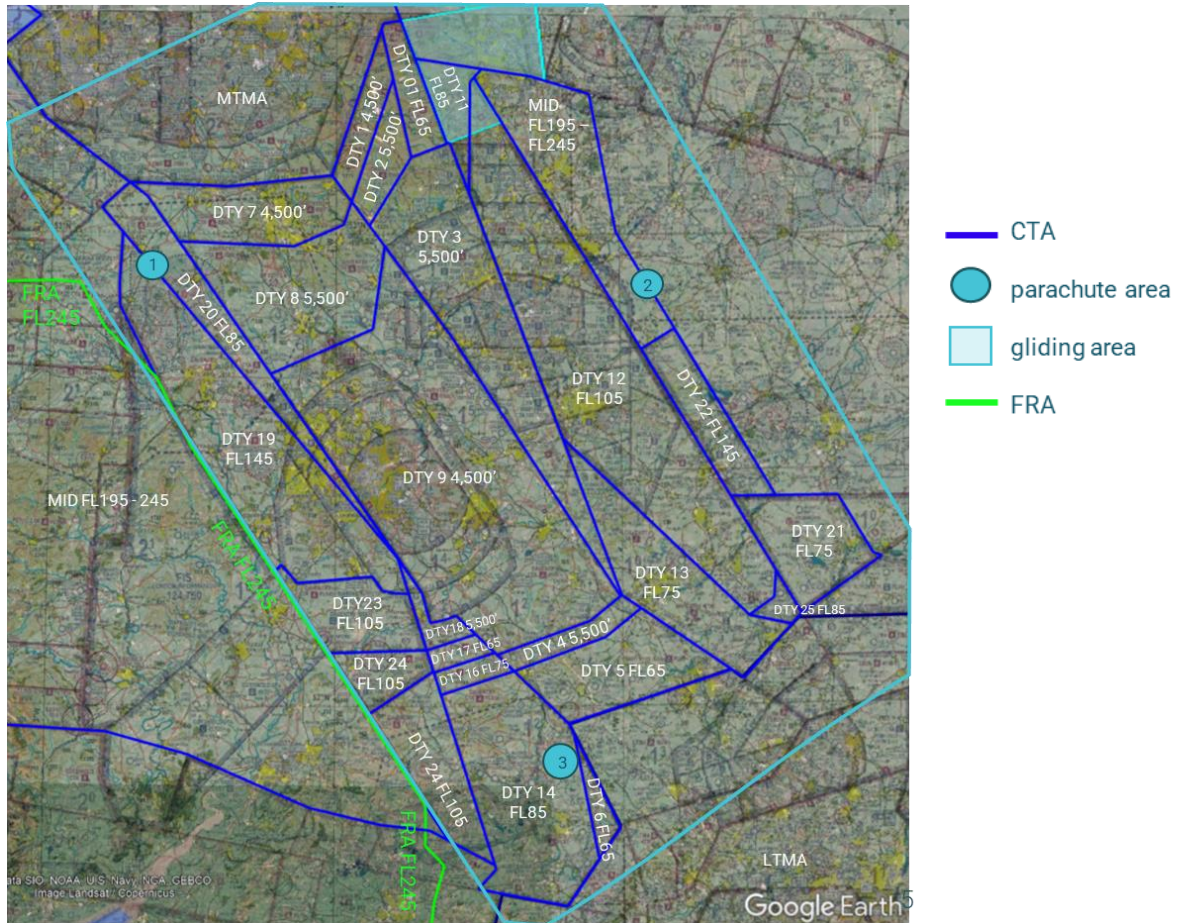


Figure 3 Extant airspace structures within area of scope. DTY CTA base levels shown (all to FL195)

Parachute Areas

2.2.2. Within the scope area are three parachute areas, shown as blue dots in Figure 3.

- (1) Tilstock parachute site (SFC – FL150)
- (2) Langar Parachute Site (SFC – FL150)
- (3) Weston-on-the-Green parachute site (SFC – FL120)

Gliding Areas

2.2.3. Camphill Box Gliding Area (blue shaded box) is within scope, this normally operates from FL85 – FL100 but may be activated to a maximum of FL190 on request.

Free Route Airspace

2.2.4. To the west of the scope area, airspace above FL245 is Free Route Airspace (FRA). The green line denotes the west boundary of the change area and is out of scope.

Military Airspace

2.2.5. The extant military airspace within the scope area is shown in Figure 4.

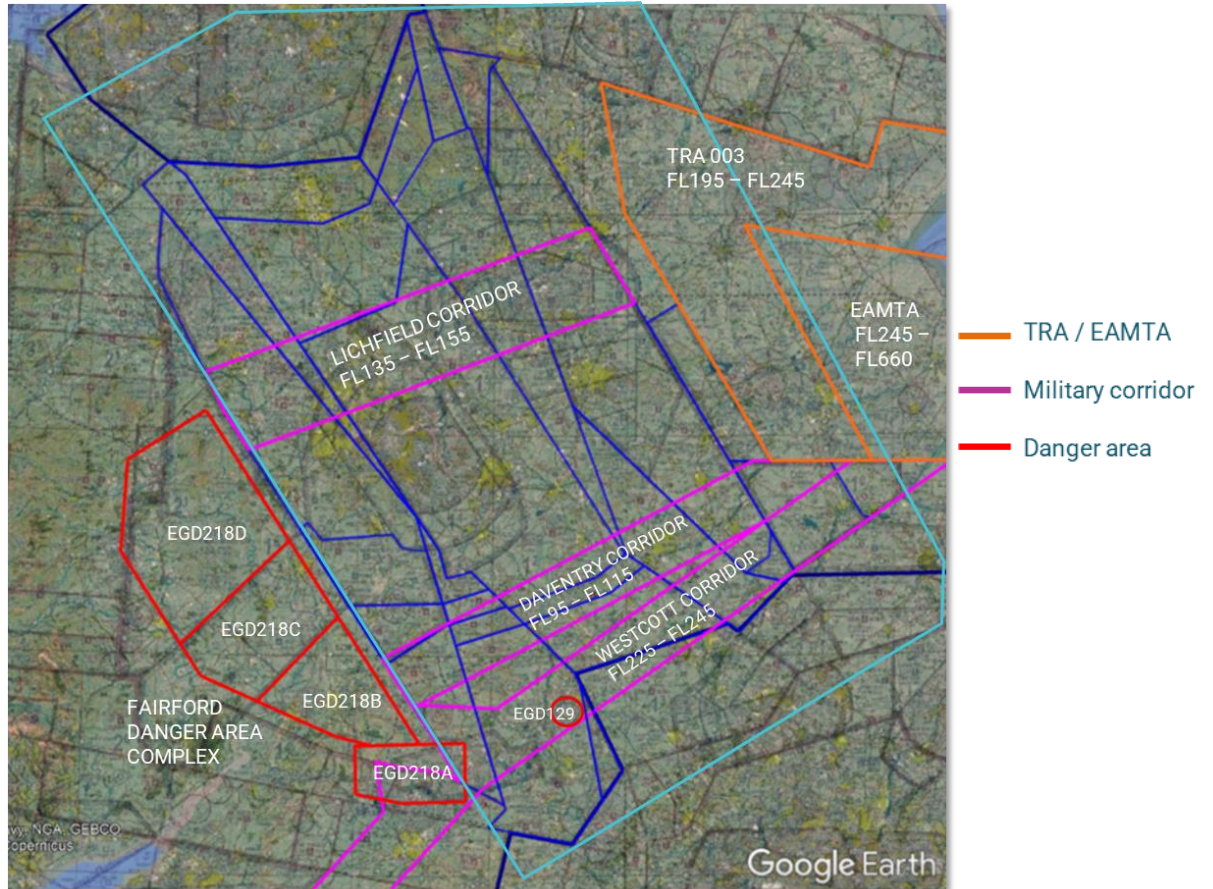


Figure 4 Extant military airspace structures within area of scope.

Temporary Reserved Area (TRA) 003: FL195 – FL245

East Anglia Military Training Area (EAMTA): FL245 – FL660

Military Corridors:

- Lichfield Corridor FL140 – FL150
- Daventry (DTY) Corridor FL100 – FL110
- Westcott (WCO) Corridor FL230 – FL240

Danger Areas:

Fairford Danger Complex

- EGD218A SFC – FL75
- EGD218B outside change area of scope
- EGD218C outside change area of scope
- EGC218D outside change area of scope

EG D129 Weston-on-the-Green SFC – FL120

2.3. Airspace Usage

2.3.1. Approximately 410,000 flights utilised the airspace in 2024, with the vast majority of traffic following the northbound or southbound flows.

2.3.2. 358,000 flights (88%) arrive to, or depart from a UK airport, and 51,000 (12%) are UK overflights.

Airspace Users

2.3.3. The Top 10 airlines using this airspace based on 2024 traffic are shown in Table 2:

Table Top 10 airlines utilising Midlands Airspace (2024 traffic)

	Airline	Flights	% flights
1	British Airways	77,291	19.6%
2	Ryanair	71,253	18.1%
3	easyJet	69,313	17.6%
4	Jet2	32,650	8.3%
5	TUI Airways	14,926	3.8%
6	Air France	11,225	2.8%
7	United Airlines	10,891	2.8%
8	Aer Lingus	7,701	2.0%
9	American Airlines	7,489	1.9%
10	Loganair	7,329	1.9%

These airlines comprise approx. 80% of all traffic using this airspace.

Aircraft Types

2.3.4. 71% of traffic is medium jets, mostly comprised of aircraft from the Airbus A320 family and the Boeing B737 family.

2.3.5. 20% of traffic is heavy airliners, predominantly B777/B787/B767 and A330/A350 aircraft.

Table Breakdown of aircraft type (2024 traffic)

Weight Category	Count (2024)	% all traffic
Super	2,988	1%
Heavy	80,469	20%
Medium	291,688	71%
Small	16,296	4%
Light	17,305	4%

2.3.6. Most aircraft are transiting the airspace to get to/from higher levels, with typical altitudes through the airspace FL100 – FL350. Table 5 shows traffic by RFL.

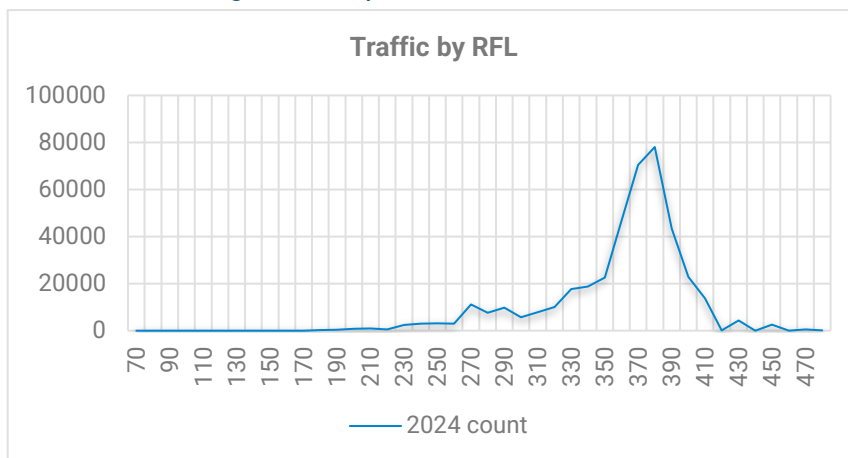


Figure 5 Traffic by RFL in Midlands Airspace (2024 traffic)

2.4. Operational efficiency, complexity, delays & choke points

- 2.4.1. The current airspace is not conducive for operational efficiency.
- 2.4.2. Legacy routes are based on ground-based navigational beacons, which converge and do not deconflict traffic by design. They are therefore rarely followed and aircraft are routinely vectored off ATS routes due to the high volume of traffic through this area of airspace.
- 2.4.3. The complexity of the traffic levels and extant design requires a high level of controller intervention, placing traffic on headings / applying speed limitations to maintain safety.
- 2.4.4. The high ATC controller workload required to safely manage the traffic restricts the capacity of the airspace, with high radio transmission (RT) levels and bunching of traffic.
- 2.4.5. Traffic is inconsistently presented and the current design creates this, with a lack of predictability with traffic presentation for ATC controllers.
- 2.4.6. The current complexity creates delay within the network.

3. Proposed Design Principles

3.1. Design Principle Development

- 3.1.1. CAP1616 states that we must include Mandatory Design Principles (MDPs) and consider Discretionary Design Principles (DDPs) or Bespoke Design Principles (BDPs).
- 3.1.2. The aim of this ACP is to optimise the route network within the Midlands Airspace in advance of the MTMA and LTMA changes. The key objectives are to optimise route capacity, reduce complexity and controller workload, and provide environmental efficiencies where possible (c.f.1.1.5)
- 3.1.3. Based on these, six DPs were drafted, and shared with stakeholders for feedback.
- 3.1.4. These include the Mandatory Design Principles (MDP), two Discretionary Design Principles (DDP) which reflect the objectives of the change, and a Bespoke Design Principle (BDP) aligning with the specific aim of this change proposal.

Table 2 Proposed Design Principles and priority ranking

Priority	Design Principle	Description
A	MDP Safety	The airspace change proposal must maintain a high standard of safety and should seek to enhance current levels of safety.
B	DDP Operational (Capacity)	The airspace change proposal should provide the greatest capacity benefits.
B	BDP Technical (Future Airspace Enabler)	The Midlands Airspace design will provide a compatible and optimised interface with the MTMA and LTMA modernisation projects.
C	MDP Environment	The airspace change proposal should deliver the Government’s key environmental objectives with respect to air navigation as set out in the Government’s Air Navigation Guidance 2017.
C	DDP Technical (Performance Based Navigation)	The proposed routes (instrument flight procedures/air traffic service routes) should be designed to enable efficiency benefits by using an appropriate standard of performance-based navigation
C	MDP Policy	The airspace change proposal should not be inconsistent with relevant legislation, the CAA’s airspace modernisation strategy or Secretary of State and CAA’s policy and guidance.

- 3.1.5. An indicative priority ranking was assigned to each DP as follows:
 A = Top priority, must meet
 B = Second priority after “A” is achieved
 C = To be considered
- 3.1.6. The DPs and the prioritisation given reflects the aim and objectives of the change proposal; safety is the key priority and **must** be achieved. After that, the need to increase capacity, and to align with the LTMA and MTMA changes is key to this project, and these **should** be achieved. The remaining principles are all important to this change and will be considered as design options are evaluated to provide the optimal design solution.

4. Stakeholder Engagement

4.1. Targeted stakeholders

- 4.1.1. Relevant aviation stakeholders were identified. At this stage, this was limited to aviation stakeholders directly impacted by the change - most prevalent airline operators, flight planning service providers, and relevant members of the National Air Traffic Management Advisory Committee (Table 5).

Table 5 Stage 1 targeted stakeholders

Organisations	Type	Rationale
British Airways, Ryanair, easyJet, Jet2, TUI Airways	Airline operators	Top 5 airlines impacted by change (comprise 67% of traffic using the airspace)
MoD (DAATM)	NATMAC	Mandatory stakeholder
General Aviation Alliance (GAA)	NATMAC	General Aviation (GA) representative organisation
British Gliding Association (BGA)	NATMAC	Representative organisation for gliding areas in scope
British Skydiving	NATMAC	Representative organisation for parachute areas in scope
Air Support, Flight Keys, Lido, Jeppesen, Lufthansa Systems, NavBlue	CFSP	Flight planning service provider / datahouse impacted by change

4.2. Engagement Activity & Materials

- 4.2.1. A briefing pack was sent via email to targeted stakeholders, describing the current-day scenario, change objectives, change opportunities, and the proposed design principles.
- 4.2.2. Stakeholders were asked to provide feedback via a simple online form, indicating response (agree/disagree and any comments) to both the current-day scenario and the draft DPs.
- 4.2.3. A three week response window was given (10 July 2025 – 31 July 2025); stakeholders who had not responded after 2 weeks were sent a reminder email on 24th July 2025.
- 4.2.4. This approach was assessed as appropriate and proportionate for the targeted stakeholders, with the 3 week period sufficient to allow for any holiday periods within the timeframe.
- 4.2.5. Annex A Engagement Evidence contains the briefing pack, emails and responses.

4.3. Engagement Responses

- 4.3.1. We received responses from 8 stakeholders, summarised in Table 3. Skydive Langar, Skydive Tilstock and RAF Brize Norton² had been sent information by British Skydive and responded directly, as well as the representative bodies.
- 4.3.2. We welcome this feedback at this stage and will continue to engage with these organisations through Stage 2 Design Development.
- 4.3.3. DAATM responded via email. All other responses were via the MS Forms link.

Current Day Scenario

- 4.3.4. We shared the current day scenario, and asked stakeholders: “To what extent do you agree with the description of the current day scenario” (Agree / Neutral / Disagree). All respondees provided a response to this question, as shown in Table 6.

Current Day Scenario: Engagement Responses			
Stakeholder	Agree with description?	Comments	NERL Response
easyJet	Agree	Nil	
TUI airlines	Agree		
MoD (DAATM)	Agree	The description of the radar corridors was for the civil TC containment. Confirmed the radar corridors as: Lichfield FL140 & FL150 Daventry FL100 & FL110 Westcott & Swindon FL230 & FL240	Diagram revised to show available levels rather than ATC containment levels for accuracy.
MoD (RAF Brize Norton)	Neutral	Imperative to consider military activity, within Weston on the Green Danger Area, and Brize Norton CTR. Any changes negatively impacting RAF Brize Norton would not be agreeable.	Weston on the Green is identified within the current day airspace description. RAF Brize Norton CTR (SFC – 3,500ft) is out of scope of this change proposal.
General Aviation Alliance (GAA)	Agree	Nil	
British Skydiving	Agree	Nil	
Skydive Langar	Agree	Nil	
Skydive Tilstock	Agree	Nil	

Table 3 Engagement feedback: Current Day Scenario

- 4.3.5. Based on the feedback, we progress the current day scenario as an accurate description of current airspace design and usage.

Proposed Design Principles

- 4.3.6. We shared the proposed design principles, and asked stakeholders: “Do you agree with the proposed Design Principles for the Midlands Airspace Change?” (Yes/No). All respondees provided a response to this question, as shown in Table 7.

² Representing Weston on the Green parachute site

Proposed Design Principles: Engagement Responses			
Stakeholder	Agree with proposed DPs?	Feedback summary	NERL response
easyJet	Yes	Nil	
TUI airlines	Yes	Nil	
MoD (DAATM)	Yes	Nil	
MoD (RAF Brize Norton)	No	Mostly agree, however, with priority "C" for Policy, and no specific principle for military ops, do not fully agree.	Policy DP regraded to 'B' to recognise importance of Government strategy and policy. DDP Technical (Military) added to DPs, priority C.
General Aviation Alliance (GAA)	No	No DP for ALL airspace users to be considered. No DP to assess and if possible reduce the amount of CAS.	The needs of all airspace users are important to NERL. Policy DP regraded to reflect this. Two additional DDPs added in response to this feedback
British Skydiving / Skydive Langar / Skydive Tilstock	No	Concerns that the proposed DPs could have a negative impact on identified parachute sites, if there is no cooperation and discussion at Stage 2 (design).	NERL intends to engage on design options as they are developed in Stage 2. All parachute areas within scope will be engaged directly as well as British skydiving. Two additional DDPs added in response to this feedback.

Table 4: Engagement feedback: Proposed Design Principles

4.3.7. In response to the feedback, we have reviewed our proposed Design Principles and made revisions as described in Table 5. This now better provides some local context to our Design Principles:

Priority	Design Principle	Description	Feedback and impact on DP
B	MDP Policy	The airspace change proposal should not be inconsistent with relevant legislation, the CAA's airspace modernisation strategy or Secretary of State and CAA's policy and guidance.	Priority grading moved to B, based on feedback.
C	DDP Technical (Ministry of Defence requirements)	The airspace change proposal should be compatible with the requirements of the Ministry of Defence.	Added in response to stakeholder feedback
C	DDP Technical (Accessibility for all airspace users)	The airspace change proposal should consider the impacts of operators and owners of all classes of aircraft, including general aviation and other civilian airspace users.	Added in response to stakeholder feedback
C	DDP Technical (Controlled Airspace)	The volume and classification of controlled airspace required for the provision of air traffic control services to IFR flights should be the minimum necessary to deliver an efficient airspace design, taking into account the needs of other airspace users	Added in response to stakeholder feedback

Table 5: Changes to proposed Design Principles

4.3.8. All stakeholders were sent an update email on 4 August which describes the final Design Principles, revised based on feedback received (See Annex A).

5. Conclusions

5.1. Current-day scenario

5.1.1. Stakeholders agree with our assessment of the current day airspace design and usage. A minor clarification was provided by DAATM – we had indicated the ATC containment area for the military corridors; this has been revised to specify the actual corridor flight levels.

5.2. Final Design Principles

5.2.1. Some stakeholders did not agree with the proposed Design Principles. We have responded to this, and revised the DPs to better reflect not only the objectives for the change, but also better address the local needs and requirements of our key stakeholders.

5.2.2. We therefore progress the DPs for the Midlands Airspace Change as below:

Priority	Design Principle	Description
A	MDP Safety	The airspace change proposal must maintain a high standard of safety and should seek to enhance current levels of safety.
B	DDP Operational (Capacity)	The airspace change proposal should provide the greatest capacity benefits.
B	BDP Technical (Future Airspace Enabler)	The Midlands Airspace design will provide a compatible and optimised interface with the MTMA and LTMA modernisation projects.
B	MDP Policy	The airspace change proposal should not be inconsistent with relevant legislation, the CAA's airspace modernisation strategy or Secretary of State and CAA's policy and guidance.
C	MDP Environment	The airspace change proposal should deliver the Government's key environmental objectives with respect to air navigation as set out in the Government's Air Navigation Guidance 2017.
C	DDP Technical (Performance based navigation)	The proposed routes (instrument flight procedures/air traffic service routes) should be designed to enable efficiency benefits by using an appropriate standard of performance-based navigation
C	DDP Technical (Ministry of Defence requirements)	The airspace change proposal should be compatible with the requirements of the Ministry of Defence.
C	DDP Technical (Accessibility for all airspace users)	The airspace change proposal should consider the impacts of operators and owners of all classes of aircraft, including general aviation and other civilian airspace users.
C	DDP Technical (Controlled airspace)	The volume and classification of controlled airspace required for the provision of air traffic control services to IFR flights should be the minimum necessary to deliver an efficient airspace design, taking into account the needs of other airspace users.

5.3. Next Steps

- 5.3.1. Our next step, subject to Stage 1 gateway, is to commence Stage 2 Design Development, engaging further with our stakeholders to develop design options which can be evaluated against the framework of these Design Principles.