



Ministry  
of Defence

**ACP-2020-092**

**GATEWAY DOCUMENTATION:  
STAGE 1 DEFINE**

**STEP 1B DESIGN PRINCIPLES AND  
STAKEHOLDER ENGAGEMENT V2.0**

## Contents

Page	Title
3	Introduction
3	Executive Summary
<b>Section 1</b>	
4	Stakeholder Identification and Engagement Rationale
6	Engagement Methods
6	Engagement Chronology
<b>Section 2</b>	
8	Draft Design Principles
9	Design Principles Evolution
11	Design Principles Consolidated List and Prioritisation Summary
<b>Section 3</b>	
12	Next Steps

## Amendments

Page	Title	Amendments
2	Contents Page	Paragraphs added have changed formatting throughout the document
7	Engagement Chronology	A paragraph has been added about feedback deadline
9 & 10	Design Principles Evolution	Paragraphs have been added to explain how the outputs of the meeting with NATS and DAATM influenced the final set of Design Principles

## **Introduction**

The Ministry of Defence, specifically Joint Training and Exercise Planning Staff (JTEPS) is the Change Sponsor for this proposal. The proposal seeks to secure suitable segregated airspace for the use by the UK and other NATO nations during the twice-yearly, large scale, highly complex, collective training exercise called Ex Joint Warrior, Europe's largest annual exercise.

The purpose of this document is to demonstrate that the Change Sponsor has followed CAP1616 airspace change processes. It forms part of the overall requirement for the Stage 1 Define Gateway, Step 1B – Design Principles.

As described in Annex D to CAP1616, the Change Sponsor has to engage with a range of potential stakeholders to seek their views on the change proposal and collect initial feedback as to what is important to them regarding the proposal in terms of Design Principles (DPs) only.

It is important to assure stakeholders that they are integral to the change process and that they have influenced the design. The stakeholder feedback has been analysed and summarised in this document to describe how the feedback has been incorporated into finalised DPs. The finalised DPs will be employed in the development of airspace design options.

## **Executive Summary**

The Change Sponsor conducted detailed stakeholder analysis to ensure they effectively engaged with all potential stakeholders over the DPs.

Stakeholders were engaged in writing and included:

- Internal MoD stakeholders
- Commercial aerodrome operators
- National Air Traffic Management Advisory Committee Members
- Other ACP Change Sponsors

The Change Sponsor received a small amount of feedback however it was very positive and constructive. Where organisations had issues with the principles or suggestions for other ones, further engagement was offered. The Change Sponsor noted that the level of feedback was expected to increase towards the Design Stage of the process, where actual airspace structure dimension options are being offered and discussed.

Further details of the engagement can be found later in this document.

As a result of the engagement, one of the DPs has been adjusted and three new ones have been included. All changes have been commented on and all queries that have not resulted in a DP change have been discussed below.

# Section 1

## Stakeholder Identification

Detailed stakeholder analysis was undertaken.

Initial airspace options development will be focussed on two areas of airspace, one in North Scotland and the other, West Scotland. Both highlighted by Fig. 1 below:

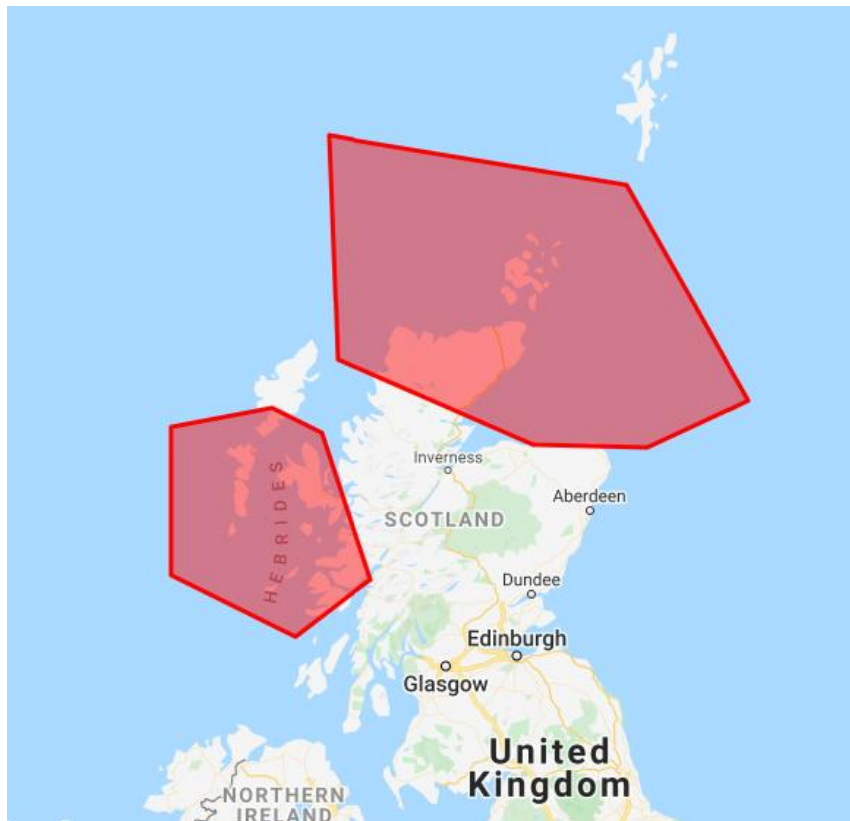


Fig. 1 - Potential area to be affected by ACP-2020-092 as identified by the MoD

To determine stakeholders, the potential area that could be affected by this airspace change was identified. At this early stage the MoD is hoping to restrict any potential airspace changes to airspace in the vicinity of the area highlighted above, however, to ensure all stakeholders were captured, a wide distribution list was actioned.

Research was undertaken in the defined areas to determine if General Aviation aerodromes, General Aviation operators, commercial airports, businesses and other military airspace users were potentially affected. Notwithstanding the expectation that NATMAC members representing airspace user communities at the national level would cascade engagement literature to an appropriate level, it was important to attempt to identify General Aviation organisations local to, and just beyond the defined areas.

Certain stakeholders identified in CAP1616 were deliberately omitted at this early stage in the process, including local authorities, civilian airfields sitting underneath

proposed area, the members of parliament, AONBs, National Parks and National Scenic Areas. The rationale for doing this is set out below:

**Airspace Base Level.** We think that MoD’s requirements can be fulfilled by setting an airspace base level at FL245. This would be a significant factor in reducing the impact to other airspace users and therefore removes or reduces the requirement to engage with most of these organisations.

**Location.** Due to the unique and isolated location of the proposed areas, they only contain a relatively small overland portion in the north and west of Scotland, therefore the impact to airspace beneath that is at its absolute minimum.

**Insufficient Detail.** At this stage in the process, we do not have enough detail on airspace dimensions or activation periods to engage meaningfully with these groups. We believe that to do so would be confusing to people who are neither airspace specialists, nor familiar with CAP1616.

The following stakeholders were identified:

Aviation Stakeholders - Internal		
1 Gp ISTAR	2 Gp	11 Gp A7
19 Sqn	78 Sqn	DAATM
DAAM	Navy FGEN	Navy Command HQ

Aviation Stakeholders - External		
Airlines UK	Airspace4All	Airport Operators Association
Airfield Operators Group	Aircraft Owners and Pilots Association	Airspace Change Organising Group
Association of Remotely Piloted Aircraft Systems UK	Aviation Environment Federation	British Airways
BAe Systems	British Airline Pilots Association	British Balloon and Airship Club
British Business and General Aviation Association	British Gliding Association	British Helicopter Association
British Hang Gliding and Paragliding Association	British Microlight Aircraft Association	General Aviation Safety Council
British Model Flying Association	British Skydiving	Drone Major
General Aviation Alliance	Guild of Air Traffic Control Officers	Honourable Company of Air Pilots
Helicopter Club of Great Britain	Heavy Airlines	Iprosurv
Isle of Man CAA	Light Aircraft Association	Low Fare Airlines
Military Aviation Authority	NATS	PPL/IR (Europe)
QuentiQ	UK Airprox Board	UK Flight Safety Committee

United States Air Force Europe		
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## Engagement Methods

To ensure wide awareness of the proposed ACP, the Change Sponsor engaged through written communication to organisations believed to be interested. At this early stage of the engagement, when only the DPs were being discussed, we felt that there would be no value in holding face to face sessions with all those potentially affected. If we found these sessions were required, then they'd be organised for early Stage 2 of the ACP.

**Written Communication.** An initial email introducing the ACP was sent, along with a letter with details of the draft DPs and an explanation about how we would like to engage with stakeholders for feedback on the proposal. The letter included details on how to leave feedback via the CAA portal, and a direct contact email address for the Change Sponsor to address questions or concerns. Details are provided on the CAA Airspace Change Portal.

**Surveys.** The use of a survey was considered as an engagement method. However, the ability for stakeholders to also be able to discuss potential impacts outside of a survey was also deemed necessary, so a simple survey attached to the Engagement Letter was emailed along with email contact details for the sponsor to allow stakeholders to respond in a free-text format too. Giving both methods as an option has delivered a more robust and effective engagement opportunity.

**Meetings.** The Change Sponsor hosted a meeting with NATS to discuss their feedback from the proposed draft DPs. This meeting was in response to the initial feedback submitted from NATS and was required due to the technical level of that information. As a result of the meeting, three additional DPs were created, detailed below.

**Engagement Chronology.** The table below details the DPs engagement activity undertaken.

Date	Action / Stakeholders Contacted	Notes
20 Aug 21	NATMAC Members & Internal MoD stakeholders	Email and covering letter
20 Aug – 29 Sep 21	Responding to general email correspondence	Emails, various
29 Sep 21	Meeting with NATS and DAATM	Discussion of DPs

**Update:** Please note, the initial engagement period deadline set out by the Change Sponsor was for feedback to be received by 17 September 2021. Due to the delay in submission of documents from the Change Sponsor to the CAA, engagement past the 17 September deadline was accepted. This included feedback from 'Reflect Solutions' and a meeting to discuss DPs with NATS and DAATM, outlined in the table above.

## Section 2

### Draft Design Principles

To provide a start point and initiate a discussion on DPs, a list of draft DPs was offered during engagement.

The draft DPs initially offered are shown in the table below:

Draft Design Principles		Initial Rationale
a	The airspace design must be safe, with any hazards identified and risks mitigated such that they are as low as reasonably practicable and tolerable.	Safety to all airspace users is paramount to any airspace change.
b	Must be within reach of Navy Forces, more specifically a Carrier Strike Group (with embarked 5 <sup>th</sup> generation air systems) operating within Deepwater, which through the development of the scenario is likely to span hundreds of miles.	Reducing transit times maximises airborne training times, minimises the amount of fuel wasted in transit and ensures the area is accessible to and utilised by the widest array of users possible.
c	Provides a sufficient mixture of overland and overseas areas, which offer exercise planners flexibility to create more complex scenarios across both environments, for necessary littoral operations.	The airspace must be in a suitable location to allow for the wide range of uses required for a complex exercise, involving Land, Maritime and Air Forces.
d	Crucially caters for kinetic and non-kinetic ranges within the area, which allows for necessary Air Land integration.	
e	Must be of large enough size to accommodate representative operational numbers.	Airspace will be used by in excess of 40 aircraft: from fast jets conducting high energy manoeuvres to refuelling and reconnaissance aircraft on racetrack patterns.
f	Safe, efficient, and standardised management, notification and activation of airspace, utilising Flexible Use of Airspace (FUA) principles.	UK airspace is congested and has many users. It is important to make airspace available to the greatest extent possible and minimise restrictions.
g	Will be FL245 and above and suitable dimensions to minimise impact on other airspace users and the network, where possible.	Through liaison with NATS and DAATM, adopting an airspace design that minimises the impact on other users is key while also adopting the most streamlined of



		processes currently used by NATS.
h	Minimise noise and environmental impacts, where relevant.	The MoD has no intention of further impacting the environment in areas already affected, or intentionally introducing new areas of impact as a result of this ACP.

### Design Principles Evolution

Relevant comments from all stakeholders were collated and arranged under the related draft DPs. Where it was assessed that a new DPs had been proposed, these were listed separately. All comments were reviewed and responded to. Where a change to the draft DP was accepted, this was annotated, and a revised DP was proposed.

#### **DP(a), (b), (c), (d), (e) and (f).**

All received no specific feedback, except all respondents agreeing to them.

**Outcome: No revision proposed to DP(a), (b), (c), (d), (e) and (f).**

#### **DP(g) - Will be FL 245 and above and suitable dimensions to minimise impact on other airspace users and the network, where possible.**

The British Microlight Aircraft Association commented that if the proposal is to be entirely above FL245 then it is very unlikely to affect any of their member's activity.

**Outcome: No revision proposed to DP(g).**

#### **DP(h) - Minimise noise and environmental impacts, where relevant.**

NATS suggested considerations for noise and environmental impacts should be separated as two distinct DPs.

**Update:** On receiving feedback from NATS, the Change Sponsor scheduled a meeting with them on 29 September 21 to discuss their feedback in greater detail. Minutes of this meeting can be found on the CAA Portal. From this meeting, the Change Sponsor decided it would be beneficial if noise impacts and environmental impacts were two separate DPs. This would allow them to be given different prioritisations as the Change Sponsor didn't think noise impacts will be as important as environmental impacts for this Airspace Change Proposal because of the proposed height (above FL245).

**Outcome: Revised DP(h) – Minimise noise impacts, where relevant.**

## Additional Design Principles Proposed

The Stage 1B engagement resulted in three new DPs.

**Update:** On receiving feedback from NATS, the Change Sponsor scheduled a meeting with them on 29 September 21 to discuss their feedback in greater detail. Minutes of this meeting can be found on the CAA Portal. From this meeting, the Change Sponsor added three new DPs. DP (i) has been discussed above.

NATS stressed that a Flight Plan Buffer Zone would be necessary as part of the design to allow for flight planning and Free Route Operations, which would be necessary with Free Route Airspace being brought in, in December 21. As a result of this meeting, the Change Sponsor understood the importance of having a Flight Plan Buffer Zone, therefore included it as DP (j).

Furthermore, NATS also highlighted the vast volume of airspace that the MoD uses annually. Consequently, a prioritisation protocol would be required to manage the network and make sure the accumulative overall effect of Defence airspace needs is minimised. On reflection by the Change Sponsor, it was acknowledged that with ACP-2021-007 (Future Combat Airspace Interim Solution) / ACP-2020-026 (Future Combat Airspace for Military Collective Training), use of the D701s, and this ACP, a huge volume of airspace is semi-regularly activated which needs to be deconflicted. The best way to do this is with protocols for the prioritisation of area activation, hence DP (k) was introduced.

The three new DPs are shown below:

Proposed additional Design Principles		Sponsor Response
i	Minimise environmental impacts, where relevant.	Considerations for noise and environmental impacts should be separated.
j	The design shall provide a Flight Plan Buffer Zone (FBZ) for the purposes of Free Route Operations and flight planning.	Provides clarity on airspace design and required FUA structures.
k	Protocols for the prioritisation of area activation shall be established to minimise the accumulative overall effect of Defence airspace needs on other airspace users.	This is key to network management.

## Design Principles Prioritisation and Stage 1B Output

The table below displays a consolidated list of the DPs at the end of Stage 1B, prioritised as shown and ready to take forward into Stage 2.

Safety is the highest priority therefore DP(a) is automatically assigned priority 1.

The MoD feels that the ability to complete its training and conduct a successful exercise is next in priority, therefore DP(b), (c) and (e) are assigned priority 2, with DP(d) being assigned priority 3 given slightly lesser importance. Minimising impact to other airspace users, DP(g) is also priority 2 because it's just as important for other airspace users to have access to the airspace they require.

Management of the network, DP(f) and DP(j), and minimising the accumulative overall effect of Defence airspace needs, DP(k), were then assigned the next two priorities down, based on the feedback received from the engagement.

Priority	Design Principles
1	DP(a) The airspace design must be safe, with any hazards identified and risks mitigated such that they are as low as reasonably practicable and tolerable.
2	<p>DP(b) Must be within reach of Navy Forces, more specifically a Carrier Strike Group (with embarked 5th generation air systems) operating within Deep Water, which through the development of the scenario is likely to span hundreds of miles.</p> <p>DP(c) Provides a sufficient mixture of overland and overseas areas which offers exercise planners flexibility to create more complex scenarios across both environments, for necessary littoral operations.</p> <p>DP(e) Must be of large enough size to accommodate representative operational numbers.</p> <p>DP(g) Will be FL 245 and above and suitable dimensions to minimise impact on other airspace users and the network, where possible.</p>
3	<p>DP(d) Crucially caters for kinetic and non-kinetic ranges within the area, which allows for necessary Air Land integration.</p> <p>DP(i) Minimise environmental impacts, where relevant.</p>
4	<p>DP(f) Safe, efficient and standardised management, notification and activation of airspace, utilising Flexible Use of Airspace (FUA) principles.</p> <p>DP(h) Minimise noise impacts, where relevant.</p>
5	<p>DP(k) Protocols for the prioritisation of area activation shall be established to minimise the accumulative overall effect of Defence airspace needs on other airspace users.</p> <p>DP(j) The design shall provide a Flight Plan Buffer Zone (FBZ) for the purposes of Free Route Operations and flight planning.</p>

## Section 3

### Next Steps

This document will be submitted to the CAA as evidence to support Step 1B of the CAP1616 airspace change process.

This will complete the documentary evidence of the Stage 1 Assessment Gateway. The document deadline is 3 December 21, for the CAA's Assessment Gateway scheduled for 17 December 21.

The planned CAP1616 timeline is as follows:

<b>CAP 1616 Gateway</b>	<b>Proposed Submission Date</b>
Stage 1 – Define	3 Dec 21
Stage 2 – Develop and Assess	11 Feb 22
Stage 3 – Consult	10 Jun 22
Stage 4 – Update and submit ACP	15 Jul 22
Stage 5 – Decide	16 Sep 22
Stage 6 – Implement	AIRAC Submission date of 18 Nov 22 for AIRAC 02/2023