

Free Route Airspace Deployment 2

Gateway documentation:
Stage 1 Define

Step 1B Design Principles
Stakeholder Engagement Feedback

The NATS logo is displayed in a bold, italicized, blue sans-serif font. It is positioned on the right side of the page, above a large, stylized blue swoosh that curves from the left edge of the page down towards the bottom right.

NATS

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1. Introduction

This document forms part of the document requirements for CAP1616 Airspace Change Process (ACP), Stage 1 Define Gateway, Step 1B Design Principles. This document may be read in conjunction with Stage 1A documentation; [Statement of Need](#).

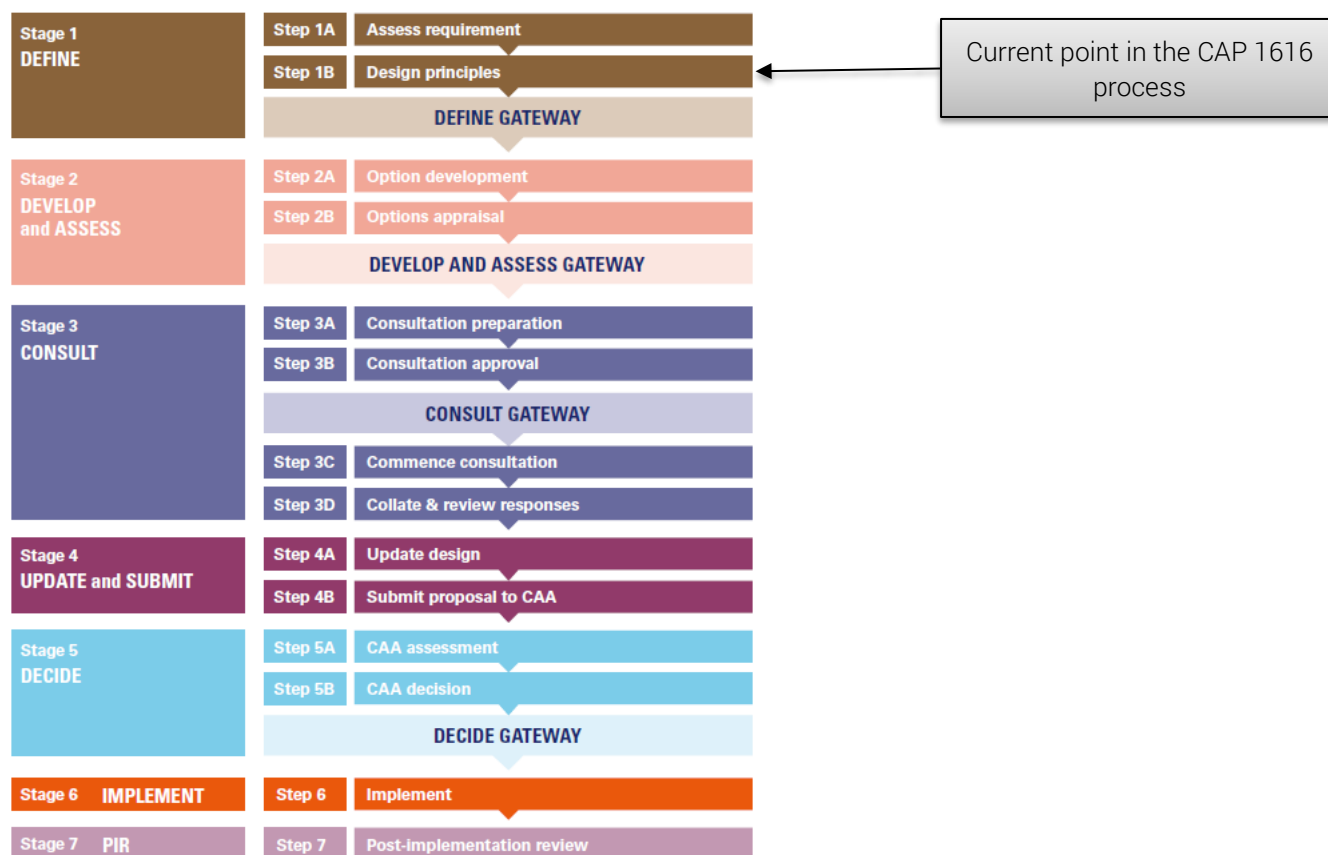


Figure 1: Overview of the Airspace Change Process (CAP1616)

NATS are currently in the process of proposing airspace changes to implement Free Route Airspace (FRA) within high altitude airspace across the UK, as mandated by European Law. UK FRA is planned to be introduced in a phased manner, split into four deployments within the UK airspace. This plan was developed in alliance with neighbouring Air Navigation Service Providers. Each phased deployment of FRA is being progressed as an individual ACP under CAP1616, and each is therefore following similar (parallel) workstream.

In October 2018, NATS distributed draft design principles relating to Free Route Airspace for Deployment 1 (D1), for feedback & comment, along with some context as to the purpose of the design principles. We emailed them to industry stakeholders, in order to engage with them and enable us to understand the design considerations that are important to them. During the same period meetings with several key stakeholders took place.

We made it clear that these proposed draft design principles were for discussion, and that we would welcome feedback to inform the final design principles. We received responses and feedback from a number of stakeholders. In November 2018, NATS analysed the feedback and updated the design principles and these were published in the FRA D1 ACP. Further detail and evidence of this engagement activity and the development of the design principles is presented in the [D1 Stage 1B document](#).

For the second FRA deployment (D2), we have been keen to engage with stakeholders again on the Design Principles to be used by D2. Due to the high-level nature of the change and the fact that elements of FRA implementation are mandated within European Law, the draft set of Design Principles for FRA D2 are the same

as the Design Principles which were developed via the engagement with all stakeholders for FRA D1. This provides consistency in the UK high-level airspace design and is proportional given a degree of repetition of the more generic elements of the process and the very similar stakeholders identified for the FRA D2 compared to those identified for FRA D1.

To minimise stakeholder engagement fatigue (particularly since the D2 Stage 1 engagement was running concurrently with the D1 consultation period) NATS considers it proportional to limit stakeholder engagement regarding design principles activities, to targeted emails only.

The relative priorities for each Design Principle (A – highest, C - lowest) are identified and indicated in Section 3 next to each.

This document describes how stakeholders' feedback has influenced the design principles for FRA D2. The amended design principles were sent to all stakeholders for final feedback with a 2-week review period in November 2019. No further feedback was received after the initial feedback on the Design Principles hence they are now being progressed under the Airspace Change Process CAP1616 Stage 1.

Engagement on specific design concepts/options will happen in Stage 2, and formal consultation in Stage 3. The design concepts will be evaluated against the final design principles as presented herein.

2. How this document is laid out

The Executive Summary lists the Design Principles (DPs), amended as a result of feedback, including additional DPs added as a result of suggestions from stakeholders.

The next sections discuss each DP in turn. In accordance with recommended engagement/consultation practice¹ this is structured as follows:

- We asked* The original discussion text of each draft DP (we sent this out, stakeholders provided feedback)
- You said* A summary of how feedback has influenced the DP
- We did* Amended final DP (unless original was agreed upon)

This is repeated for each DP.

Section 19 summarises the engagement activity, numbers of responses and key stakeholders who were included in the engagement.

¹ Recommended by the Consultation Institute

3. Executive Summary – List of Design Principles (DP)

The following list summarises the final Design Principles which have resulted from engagement with our stakeholders. Each of these principles has evolved from the FRA D1 DP engagement feedback. Priorities are indicated in brackets (A being the highest priority). These priorities will be considered when the design principles are used to evaluate/rank design options in the later stages of the airspace change process. How the DPs have evolved is described in detail in the next sections of the document.

DP0 Safety (A)

Maintain or enhance current levels of safety.

DP1 Operational (Resilience) (B)

The proposed airspace will maintain or enhance operational resilience of the ATC network.

DP2 Economic (Network Performance) (B)

The proposed FRA airspace will facilitate optimised network economic performance.

DP3 Environmental (CO2 Emissions) (B)

The proposed FRA airspace will facilitate the reduction of CO₂ emissions per flight

DP4 Environmental (Impact to Stakeholders on the Ground) (C)

Minimise environmental impacts to stakeholders on the ground
(note: due to the altitude of the proposed changes (>20,000ft), it is not expected that there will be any significant environmental impacts to stakeholders on the ground due to noise, visual intrusion or local air quality)

DP5 Operational (Optimised Trajectories) (B)

Create an environment within which AOs may freely flight plan optimised trajectories between defined entry and exit points.

DP6 Technical (Interface) (A)

The interface between FRA and the ATS route network will be optimised for safety.

DP7 Technical (Flight Efficiency) (B)

The interface between FRA and the ATS route network will maintain or improve flight efficiency compared to current day operations.

DP8 Technical (MoD Requirements) (B)

The FRA airspace will be compatible with the requirements of the MoD and take into consideration the requirements of defence industry stakeholders.

DP9 Technical (GA Impacts) (B)

The impacts on GA and other civilian airspace users due to FRA will be minimised.

DP10 Policy (PCP) (A)

The proposed FRA airspace will fulfil the requirements of the PCP.

DP11 Implementation (Phasing) (B)

The proposed FRA airspace will be suitable for introduction in a phased implementation.

DP12 Operational (Adjacent ANSPs) (B)

Connectivity to adjacent airspace (FRA or non-FRA) will be maintained or enhanced.

DP13 Operational (Capacity)**(B)**

FRA will maintain current ATC capacity, and will aim to maximise airspace capacity.

DP14 Operational (Flexible Use Airspace)**(B)**

The proposed FRA airspace will be compatible with the Flexible Use Airspace (FUA) concept.

4. DP0 Safety

4.1 Original discussion text

Maintain or enhance current levels of safety.

4.2 How has feedback influenced this DP?

The original wording of the DP was deliberately general.

It was not explicit that safety should apply to all airspace users (not just commercial air traffic), but equally it did not make explicit that safety should apply to those on the ground – all are implicitly included in the general statement.

There was agreement on this DP hence it remains as originally proposed. Priority A assigned, since safety is the highest priority.

5. DP1 Operational (Resilience)

5.1 Original discussion text

The proposed airspace will maintain or enhance operational resilience of the ATC network.

5.2 How has feedback influenced this DP?

There was agreement on this DP hence it remains as originally proposed. Priority B assigned, since resilience is high priority.

6. DP2 Economic (Network Performance)

6.1 Original discussion text

The proposed FRA airspace will facilitate optimised network economic performance

6.2 How has feedback influenced this DP?

There was agreement on this DP hence it remains as originally proposed. Priority B assigned, since Network Performance is high priority.

7. DP3 Environmental (CO₂ Emissions)

7.1 Original discussion text

Environmental – The proposed FRA airspace will facilitate the reduction of CO₂ emissions per flight

7.2 How has feedback influenced this DP?

There was agreement on this DP hence it remains as originally proposed. Priority B assigned, since reduction of CO₂ Emissions is high priority.

8. DP4 Environmental (Impact to Stakeholders on the Ground)

8.1 Original discussion text

Minimise environmental impacts to stakeholders on the ground

(note: due to the altitude of the proposed changes (>20,000ft), it is not expected that there will be any significant environmental impacts to stakeholders on the ground due to noise, visual intrusion and local air quality)

8.2 How has feedback influenced this DP?

There was agreement on this DP hence it remains as originally proposed. Priority C assigned, since impacts to stakeholders on the ground due to high level overflights, would only be a deciding factor if all other factors were equal.

9. DP5 Operational (Optimised Trajectories)

9.1 Original discussion text

Create an environment within which AOs may freely flight plan optimised trajectories between defined entry and exit points.

9.2 How has feedback influenced this DP?

There was agreement on this DP hence it remains as originally proposed. Priority B assigned, since facilitating optimised trajectories is high priority.

10. DP6 Technical (Interface Safety)

10.1 Original discussion text

The interface between FRA and the ATS route network will be optimised for safety.

10.2 How has feedback influenced this DP?

There was agreement on this DP hence it remains as originally proposed. Priority A assigned, since safety is the highest priority.

11. DP7 Technical (Interface Flight Efficiency)

11.1 Original discussion text

The interface between FRA and the ATS route network will maintain or improve flight efficiency compared to current day operations.

11.2 How has feedback influenced this DP?

There was agreement on this DP hence it remains as originally proposed. Priority B assigned, since flight efficiency is high priority.

12. DP8 Technical (MoD Requirements)

12.1 Original discussion text

The FRA airspace will be compatible with the requirements of the MoD

12.2 How has feedback influenced this DP?

BAe Warton asked that

"industry activities such as ours are taken into consideration". A revised text was sent to BAe Warton on 04/11/2019 and agreement received (see Annex B). This has developed DP8 as below.

Priority B assigned, since MOD requirements are high priority.

12.3 Proposed text

The FRA airspace will be compatible with the requirements of the MoD and take into consideration the requirements of defence industry stakeholders.

13. DP9 Technical (GA Impacts)

13.1 Original discussion text

The impacts on GA and other civilian airspace users due to FRA will be minimised.

13.2 How has feedback influenced this DP?

There was agreement on this DP hence it remains as originally proposed. Priority B assigned, since minimising impacts on GA is high priority.

14. DP10 Policy (PCP)

14.1 Original discussion text

The proposed FRA airspace will fulfil the requirements of the PCP.

14.2 How has feedback influenced this DP?

The PCP mandate is a primary driver for the introduction of FRA hence it is important that the proposed FRA solution fulfils the PCP requirements.

There was agreement on this DP hence it remains as originally proposed.

Priority A assigned, since the PCP requirements are mandatory.

15. DP11 Implementation (Phasing)

15.1 Original discussion text

The proposed FRA airspace will be suitable for introduction in a phased implementation.

15.2 How has feedback influenced this DP?

Implementation of FRA will have to occur in a phased programme. This will enable FRA to be introduced earlier in less complex regions. The experience of the early implementations will inform and enhance how the latter, more complex airspace is configured. In particular, practical experience of how best to configure the interfaces with lower airspace, and adjoining airspace of other states/ANSPs will be of critical importance.

There was agreement on this DP hence it remains as originally proposed.

Priority B assigned, since a phased implementation is important to facilitating an orderly transition to FRA.

16. DP12 Operational - (Adjacent ANSPs)

16.1 Original discussion text

Connectivity to adjacent airspace (FRA or non-FRA) will be maintained or enhanced.

16.2 How has feedback influenced this DP?

There was agreement on this DP hence it remains as originally proposed. Priority B assigned, since efficient connectivity with adjacent ANSPs' airspace is high priority.

17. DP13 Operational - (Capacity)

FRA will maintain current ATC capacity, and will aim to maximise airspace capacity.

17.1 How has feedback influenced this DP?

There was agreement on this DP hence it remains as originally proposed. Priority B assigned, since maintaining airspace capacity is high priority.

18. DP14 Operational (Flexible Use Airspace)

The proposed FRA airspace will be compatible with the Flexible Use Airspace (FUA) concept.

18.1 How has feedback influenced this DP?

There was agreement on this DP hence it remains as originally proposed. Priority B assigned, since maintaining flexible use of airspace is high priority.

19. Engagement Evidence

A significant amount of engagement was undertaken in the development of these Design Principles for FRA D1, which for consistency of design throughout UK high-level airspace, have been used as the draft design principles for FRA D2. This is described and referenced in the D1 Stage 1B Design Principles document [here](#).

We received less design principle feedback from stakeholders for FRA D2, with most responses being content with the draft design principles. Table 1 below provides a summary of the engagement activity for FRA D2. Evidence is provided as an Annex where relevant.

19.1 We Asked - Emails to relevant aviation industry interested parties

Emails were sent on 11 October 2019 to 18 organisations, based on National Air Traffic Management Advisory Committee (NATMAC) contacts, adjacent ANSPs, and data houses. A return date of 1 November was set. Table 1 identifies all those contacted.

19.2 You Said – Stakeholder Responses

The response rate was 22% (4 stakeholders). These can be seen in Table 1.

Two provided no specific comment, indicating that they are satisfied with the draft design principles. One stakeholder provided feedback which was more relevant to Stage 2 of the ACP process. One response was used to inform DP8.

19.3 We Did

One stakeholder response provided comments useable to influence the design principles – included in this document (DP8) and evidenced in Annex B.

A draft of this document with the revised DPs was sent to all the stakeholders on 14 November. This provided feedback on the two-way engagement and demonstrated the development of the DPs following this engagement. Responses were requested by 29 November; stakeholders were advised no need to respond if they had no additional comments. As shown in Table 1, no responses were received.

19.4 Free Route Airspace Deployment 2 Key stakeholders Engagement Record

(Note: any other organisation or individual were welcome to provide input to the DP development process. Wider consultation with a much larger group will be undertaken at a later stage when a mature set of design options will be presented.)

	Stakeholder	Initial Engagement Email (Annex A)	Response to initial email	Final draft DP Email (Annex D)	Response to final email
NATMAC	BAE Systems	Sent 08/10/2019	22/10/2019 Feedback: Annex B	Sent 14/11/2019	none
	Airlines UK	Sent 08/10/2019		Sent 14/11/2019	none
	British Business and General Aviation (BBGA)	Sent 08/10/2019		Sent 14/11/2019	none
	British Gliding Association (BGA)	Sent 08/10/2019	31/10/2019 Feedback: Annex C	Sent 14/11/2019	none

	Low Fares Airlines	Sent 08/10/2019		Sent 14/11/2019	none
	MoD via DAATM	Sent 08/10/2019	23/10/2019 Approve	Sent 14/11/2019	none
Data Houses /Flight- planning providers	Jeppesen	Sent 08/10/2019		Sent 14/11/2019	none
	Lufthansa Systems	Sent 08/10/2019		Sent 14/11/2019	none
	NavBlue	Sent 08/10/2019		Sent 14/11/2019	none
	Sabre	Sent 08/10/2019		Sent 14/11/2019	none
ANSPs	Eurocontrol Maastricht Upper Area Control Centre (MUAC)	Sent 08/10/2019		Sent 14/11/2019	none
	Irish Aviation Authority (IAA)	Sent 08/10/2019	09/10/2019 Approve	Sent 14/11/2019	none
	Direction des Services de la Navigation Aérienne (DSNA)	Sent 08/10/2019		Sent 14/11/2019	none
	DSNA ACC Brest	Sent 08/10/2019		Sent 14/11/2019	none
	DSNA ACC Reims	Sent 08/10/2019		Sent 14/11/2019	none
	NAVIAIR	Sent 08/10/2019		Sent 14/11/2019	none
	Isavia	Sent 08/10/2019		Sent 14/11/2019	none
	Avinor	Sent 08/10/2019		Sent 14/11/2019	none

Table 1: FRA D2 Stage 1B Engagement Record

20. Conclusion

Throughout the design principles engagement, we supplied stakeholders with a set of draft design principles, to provoke discussion and welcomed their feedback.

We received feedback on one of the draft design principles (DP8) which was amended as a result. We circulated the revised DPs to all stakeholders for feedback.

This evolution has resulted in the list of design principles as detailed in the Executive Summary.

Annex A: Initial Engagement email sent to all stakeholders on 08/10/2019

From: Airspace Consultation <airspaceconsultation@nats.co.uk>

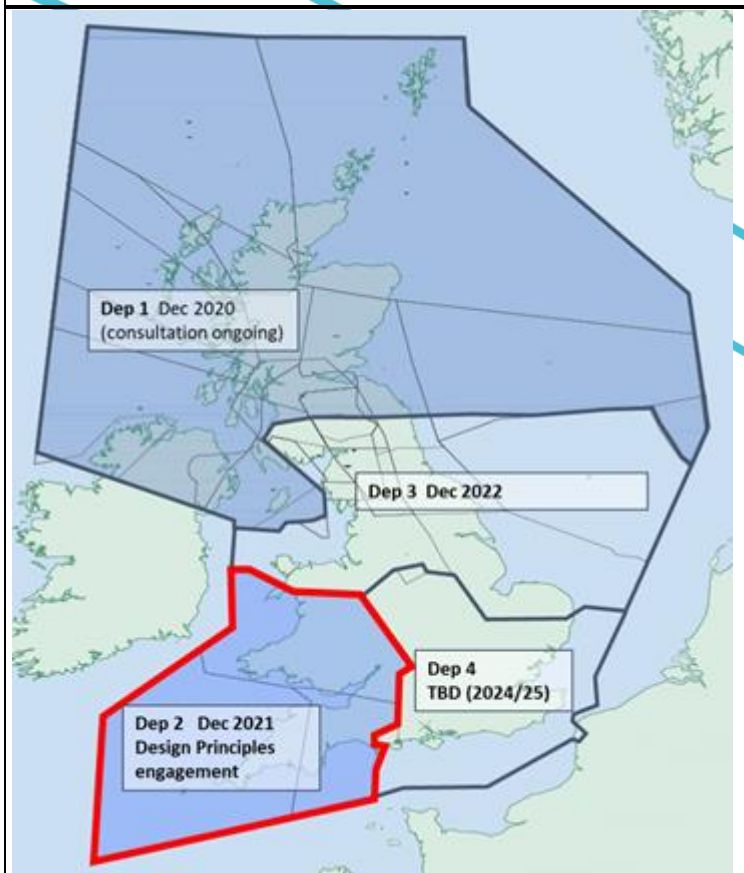
Sent: 08 October 2019 10:29

Subject: UK Free Route Airspace (FRA), Deployment 2 (D2) Design Principles

Dear Colleague,

NATS are currently in the process of proposing airspace changes to implement Free Route Airspace (FRA) within high altitude airspace across the UK.

This process is split into four deployments within the UK airspace. Each of these has to follow similar (parallel) workstreams.



The first deployment (D1) of FRA is currently being consulted upon (consultation is open until 10th Dec 2019). However for the second deployment (D2) (outlined in red, in the diagram) we are required to engage with you on the Design Principles to be used by the project. This is a required part of the UK CAP1616 airspace change process.

Below are a draft set of design principles for the FRA D2 changes. These are the same as the design principles which were developed via engagement with all stakeholders for D1. Hence we are building upon this experience. The relative priorities (A – highest, C - lowest) are indicated next to each.

Please can you review these and give us your comments.

If you have any suggestions for changes or additional design principles we welcome your input.

If you are content with the proposed design principles you can respond using the "Approve" voting button (or simply reply saying "Approve").

If you have comments please reply to this email.

Proposed Design Principles

DP0 Safety

(A)

Maintain or enhance current levels of safety.

DP1 Operational (Resilience)

(B)

The proposed airspace will maintain or enhance operational resilience of the ATC network.

DP2 Economic (Network Performance)

(B)

The proposed FRA airspace will facilitate optimised network economic performance.

DP3 Environmental (CO2 Emissions) (B)

The proposed FRA airspace will facilitate the reduction of CO₂ emissions per flight

DP4 Environmental (Impact to Stakeholders on the Ground) (C)

Minimise environmental impacts to stakeholders on the ground

(note: due to the altitude of the proposed changes (>20,000ft), it is not expected that there will be any significant environmental impacts to stakeholders on the ground due to noise, visual intrusion and local air quality)

DP5 Operational (Optimised Trajectories) (B)

Create an environment within which AOs may freely flight plan optimised trajectories between defined entry and exit points.

DP6 Technical (Interface) (A)

The interface between FRA and the ATS route network will be optimised for safety.

DP7 Technical (Flight Efficiency) (B)

The interface between FRA and the ATS route network will maintain or improve flight efficiency compared to current day operations.

DP8 Technical (MoD Requirements) (B)

The FRA airspace will be compatible with the requirements of the MoD

DP9 Technical (GA Impacts) (B)

The impacts on GA and other civilian airspace users due to FRA will be minimised.

DP10 Policy (PCP) (A)

The proposed FRA airspace will fulfil the requirements of the PCP.

DP11 Implementation (Phasing) (B)

The proposed FRA airspace will be suitable for introduction in a phased implementation.

DP12 Operational (Adjacent ANSPs) (B)

Connectivity to adjacent airspace (FRA or non-FRA) will be maintained or enhanced.

DP13 Operational (Capacity) (B)

FRA will maintain current ATC capacity, and will aim to maximise airspace capacity.

DP14 Operational (Flexible Use Airspace) (B)

The proposed FRA airspace will be compatible with the Flexible Use Airspace (FUA) concept.

We would appreciate your feedback by 1st November. Many thanks for your time.

Best regards

Annex B: Engagement Activity with BAe Systems (Warton)

From: [REDACTED]
Sent: 22 October 2019 11:48
To: Airspace Consultation <airspaceconsultation@nats.co.uk>
Cc: [REDACTED]
Subject: RE: UK Free Route Airspace (FRA), Deployment 2 (D2) Design Principles

Morning [REDACTED]

Warton agrees the design principles as proposed below. However, whilst we note that DP8 caters for MOD compatibility, we would ask that industry activities such as ours are also taken into consideration. If you believe that DP9 covers this, then we would be content. We recognise that our activities often cut across both of these environments and are content with the level of engagement between NATS and BAE Systems to manage our operations.

Regards
[REDACTED]

From: Airspace Consultation <airspaceconsultation@nats.co.uk>
Sent: 04 November 2019 15:12
To: [REDACTED]
<airspaceconsultation@nats.co.uk>
[REDACTED]
Subject: RE: UK Free Route Airspace (FRA), Deployment 2 (D2) Design Principles

Afternoon [REDACTED]

If you prefer, I can change DP8 to read, 'The FRA airspace will be compatible with the requirements of the MoD and take into consideration the requirements of defence industry stakeholders'.

Regards
[REDACTED]

From: [REDACTED]
Sent: 04 November 2019 15:17
To: Airspace Consultation <airspaceconsultation@nats.co.uk>
Subject: RE: UK Free Route Airspace (FRA), Deployment 2 (D2) Design Principles

Happy with that [REDACTED] thanks.

Regards

Annex C: Engagement activity with British Gliding Association (BGA)

From: [REDACTED]
Sent: 31 October 2019 14:26
To: Airspace Consultation <airspaceconsultation@nats.co.uk>
Subject: RE: UK Free Route Airspace (FRA), Deployment 2 (D2) Design Principles

Dear [REDACTED]
 Thank you for the opportunity to comment on this. I attach the BGA's generic Design Principles.
 Deployment 2 will potentially involve discussions about the Letter Of Agreement between NATS and the BGA regarding the Welsh Upper and Lower Temporary Reserved Areas (Gliding) A-H (TRA(G)s). See ENR 6-64 and ENR 6-6 for their position. At present these areas are only available at weekends and on Public Holidays. If FRA D2 entails a review of these TRA(G)s the BGA would like the ability to activate areas B and C during daylight hours on weekdays when the North Wales Military Training Area (NWMTA) is not active.

Best regards

[REDACTED]
 Responding for the BGA
 [REDACTED]

From: Airspace Consultation <airspaceconsultation@nats.co.uk>

Sent: 05 November 2019 [REDACTED]

Cc: [REDACTED] [REDACTED]

Subject: RE: UK Free Route Airspace (FRA), Deployment 2 (D2) Design Principles

Dear [REDACTED]
 [REDACTED] your comments on the FRA D2 design principles. Access to the Welsh Upper and Lower Temporary Reserved Areas (Gliding) A-H will certainly be a consideration, and our objective in accordance with DP9 and DP14 will be to minimise any impact (or change to the current arrangements) regarding the BGA's access to these areas. This will be off-set against DP13 which seeks to maximise capacity.

DP9 Technical (GA Impacts) (B)

The impacts on GA and other civilian airspace users due to FRA will be minimised.

DP13 Operational (Capacity) (B)

FRA will maintain current ATC capacity, and will aim to maximise airspace capacity.

DP14 Operational (Flexible Use Airspace) (B)


The proposed FRA airspace will be compatible with the Flexible Use Airspace (FUA) concept.

Regards

From: [REDACTED]
Sent: 05 November 2019 10:11
To: Airspace Consultation <airspaceconsultation@nats.co.uk>
Subject: RE: UK Free Route Airspace (FRA), Deployment 2 (D2) Design Principles

Thank you [REDACTED]

Annex D: Final Draft Design Principles Engagement Activity – sent to all stakeholders




Airspace Consultation

UK Free Route Airspace (FRA): Deployment 2 (D2) Design Principles

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14/11/2019



D2 FRA-St1-DesPrin v0.2.pdf


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Dear Colleague

NATS are currently developing Design Principles for the implementation of Deployment 2 of Free Route Airspace within high altitude airspace across the UK and we recently wrote and asked for your input.

Thank you for your feedback. Attached is a draft version of the proposed final Design Principles influenced by the feedback received, which we are required to share with you as part of the CAP1616 airspace change process.

This is for your information. If you have any comments please respond by email by 29 November 2019.
Many thanks for your time.

Kind regards




ANNEX E: GLOSSARY OF TERMS

ACP: Airspace Change Proposal

ANSP: Airspace Navigation Service Provider

ATC: Air Traffic Control

ATS: Air Traffic Services

Borealis Alliance: Alliance amongst north-west European Air Navigation Service Providers to drive better performance for stakeholders through business collaboration. The Alliance includes the ANSPs of Denmark, Estonia, Finland, Iceland, Ireland, Latvia, Norway, Sweden and the UK.

CAA: Civil Aviation Authority – UK Airspace regulator

CAP: Civil Aviation Publication

CAP 1616: guidance on the regulatory process for changing airspace design including community engagement requirements.

DP: Design Principles: these encompass the safety, environmental and operational criteria and the strategic policy objectives that the change sponsor seeks to achieve in developing the airspace change proposal.

Eurocontrol: European Organisation for the Safety of Air Navigation; with 41 members it seeks to achieve safe and seamless air traffic management across Europe. (note Eurocontrol is independent of the European Community)

FRA: Free Route Airspace - a specified volume of airspace in which users may freely plan a route between a defined entry and exit point. Subject to airspace availability, routeing is possible via intermediate waypoints, without reference to the air traffic service (ATS) route network. Inside this airspace, flights remain subject to air traffic control.

ICAO: International Civil Aviation Organisation – an agency of the United Nations.

NATMAC: National Air Traffic Management Advisory Committee - NATMAC is a non-statutory advisory body sponsored by the Directorate of Airspace Policy. The Committee is consulted for advice and views on any major matter concerned with airspace management.

NATS: National Air Traffic Services – UK Air Navigation Service Provider

RAD: Route Availability Document - contains the policies, procedures and descriptions for route and traffic orientation. Includes route network and free route airspace utilisation rules and availability.

Statement of Need: sets out what airspace issue or opportunity this proposed change seeks to address

Systemised airspace: Use of procedure-based methods used to manage aircraft rather than tactical control.