Free Route Airspace Deployment 2

Gateway Documentation
Stage 3: Consult
Step 3D: Collate and Review Responses

Roles

Action	Role	Date
Produced	**Airspace Change Specialist** Airspace and Future Operations	02/2022
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Issue	Month/Year	Change Requests in this issue
1.0	02/2022	Submitted to CAA
1.1	04/2022	Responses recategorized and further detail provided

References

Ref No	Description	Hyperlinks
1	LD1.1 ACP CAA Portal page	Link to CAA portal
2	CAP1616 CAA Airspace Change Process	Link to CAP1616
3	Stage 3 Consultation Strategy Document	Consultation Strategy
4	Stage 3 Consultation Document	Consultation Document
5	Consultation FAQ document	FAQ document
6	LD1.1 Stage 3D Consultation Response report	Link to CAA portal

Contents

1. Introduction

1.1 NATS is proposing to implement Free Route Airspace (FRA) in the South-West area of the UK Upper Information Region (UIR) (airspace from 24,500ft − 66,000ft). This is Deployment 2 of the UK FRA programme.

1.2 In a separate ACP, NATS also proposes that the underlying airspace (airspace from 7000ft − 24,500ft) will be changed concurrently as part of the London Airspace Modernisation Programme 2 (Deployment 1; LD1.1, Ref 1)

1.3 These ACPs are interdependent and cover a common geographic region, as shown in Figure 1. Consultation has been conducted concurrently and it is proposed the airspace changes will be implemented simultaneously.

1.4 This document forms part of the document set required in accordance with the requirements of the CAP1616 airspace change process (Ref 2). It summarises all consultation responses in accordance with the "We asked, you said" stage of "We asked, you said, we did".

1.5 This document aims to provide adequate evidence to satisfy: Stage 3, Step 3D Categorisation of responses, for the FRA D2 deployment.

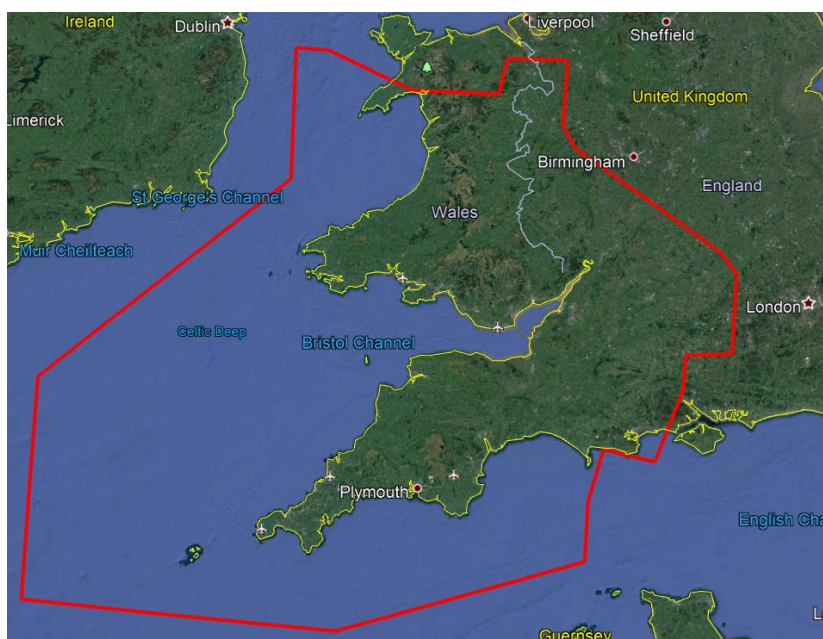

Figure 1 Proposed deployment area for FRA D2/LD1.1

2. Consultation

2.1 NATS has completed a consultation on the proposed implementation of FRA in the Deployment 2 area. This was focused on how and where FRA is implemented in this area.

2.2 Stakeholders were asked to indicate whether they supported the proposed changes, and to preference a design option. Focused questions asked about specific aspects of the proposal, with stakeholders asked to rank their views.

2.3 The implementation level of FRA in this area is dependent on the outcome of the LD1.1 consultation, which proposes two options for the FRA volume divisional flight level (DFL).

2.4 The timeline for this proposal is for a target implementation date not before 23rd March 2023. This fits in with the overall NATS change programme for both interdependent ACPs, including target AIP and AIRAC dates. Deployment of FRA across the whole of the UK is targeted to be complete not before 2026. This consultation was related to the proposed Deployment 2 airspace only.

2.5 The consultation document highlighted the interdependency between the FRA D2 and LD1.1 ACPs. Consultation responses from either ACP may be relevant to the other via this interdependency and therefore readers should refer to both proposals.

Consultation Activity:

2.6 The consultation strategy document (Ref 3) describes the focus of the consultation including previous engagement activities completed, the audience of the consultation and justification behind the consultation strategy.

2.7 A consultation document (Ref 4) was prepared for the proposed airspace change options and provided to stakeholders. This includes a description of the current airspace, the proposed changes and impacts of the proposal.

2.8 A targeted group of aviation stakeholders was specifically engaged for this consultation (referred to as 'the stakeholders' within this document). These included Air Navigation Service Providers (ANSPs) which border the NATS London UIR; Airlines; Airports; Computer Flight-planning Service Providers (CFSPs); National Air Traffic Management Advisory Committee (NATMAC) members; and the Ministry of Defence (MoD). These are all listed in Appendix A: List of Stakeholders

2.9 A description of engagement activities and reasoning behind why these specific stakeholders were targeted is presented in the Consultation Strategy (Ref 3). Additional agencies identified early in the consultation period were added to the stakeholder list and targeted as described below.

2.10 The consultation targeted the stakeholders as described above but was not exclusive to this list. Responses from any individual or organisation were encouraged and welcomed.

2.11 The consultation was conducted via the online portal which included an overview into the proposed changes; the consultation document available for download; a short introductory video; an interactive map; FAQs and the survey which allowed users to submit feedback. The consultation materials can be found on the portal here: https://consultations.airspacechange.co.uk/nats/nats-fra-d2/

2.12 The stakeholders were sent a notification email to inform them when the consultation was launched. This included information on how to respond via the online portal and that the consultation document (Ref 4) was available to download, along with other supporting documents, from the portal. See Annex A Engagement Evidence 1.

2.13 A list of the questions used in the online portal can be found in Appendix B – Online Portal Questions.

2.14 We included a link to the consultation portal on the NATS Customer Affairs website, which is used to exchange information between NATS and our customer airlines. We also added a link to the consultation portal on the NATS.aero website, which is available to the public. See Annex A Engagement Evidence 2 & 3.

2.15 The consultation commenced on 6th September 2021 and ended on 29th November 2021, a period of 12 weeks.

2.16 As set out in the consultation strategy, we tracked responses with follow-up emails to all targeted stakeholders who had not submitted a consultation response, at the mid-point and on the final week of the consultation, which included a link to the online consultation portal. This was to prompt stakeholders for a response and ensure that the consultation strategy was achieved. See Annex A Engagement Evidence 4 & 5

2.17   Additional emails were sent to specifically targeted airlines who are high users of the airspace, reminding them of the consultation closing date and that their views were important to help inform the final proposed design.

2.18   A short video was produced which introduces stakeholders to the proposed changes. This was included in the midpoint email, and the consultation portal page, via this link: https://vimeo.com/618933351/0155d4e30e

2.19   We hosted a series of online video meetings (webinars) to give stakeholders the opportunity to engage directly with our experts. Video conferencing was the best way to achieve this, given the social distancing and travel constraints due to the pandemic. The webinar comprised a detailed presentation on both FRA D2 and LD1.1 proposed changes, and a Q&A which allowed any specific questions to be answered directly. These were then added to the FAQ document (Ref 5).

2.20   We held nine webinars with targeted stakeholder groups. We had 41 attendees within this cohort of stakeholders we actively targeted for engagement, as shown in Table 1:

Table 1 Webinar Stakeholder Engagement: High Interest/High Influence Stakeholders

Stakeholder Target Group	Number of Webinars	Number of Attendees	Attendees
Airlines	2	19	Aer Lingus, Air Transat, American Airlines, BA Cityflyer, British Airways, Delta Airways, EasyJet, Emirates, Etihad, FlyBe, JetBlue, Jet2, Malaysia Airlines, NetJets, Qatar Airways, Ryanair, TUI, United Airlines, Virgin Airlines
GA/BGA	1	2	BGA, GAA
Airports (High Interest/High Influence)	1	10	Heathrow, Southampton, Bournemouth, Luton, Stansted, Gatwick, London City, Manchester, Farnborough, Liverpool
Severn Group Airports	1	3	Bristol, Cardiff, Exeter
DAATM/MoD	1	3	DAATM, QinetiQ, RAF 78 Sqn
Brest/IAA ANSP	2	2	Brest ACC, IAA ANSP
Cardiff ATC & Western Radar	1	2	Western Radar, Cardiff ATC
Total Targeted Webinars	**9**	**41**	

2.21   In the consultation strategy, we said we would hold a minimum of two open webinars. We held 3 Open Session webinars to which we invited all stakeholders and were open to any individual or organisation

2.22   We kept a record of the stakeholders who had attended each session. In Week 10 we emailed the stakeholders who had not already attended a webinar with details of the final Open Session webinar held in Week 11 (this was Open Session 3).

2.23   We engaged with 28 stakeholders through these open webinars, as shown in Table 2 below. The CAA also attended an Open Session as an interested party.

Table 2 Webinar Stakeholder Engagement: Other Stakeholders

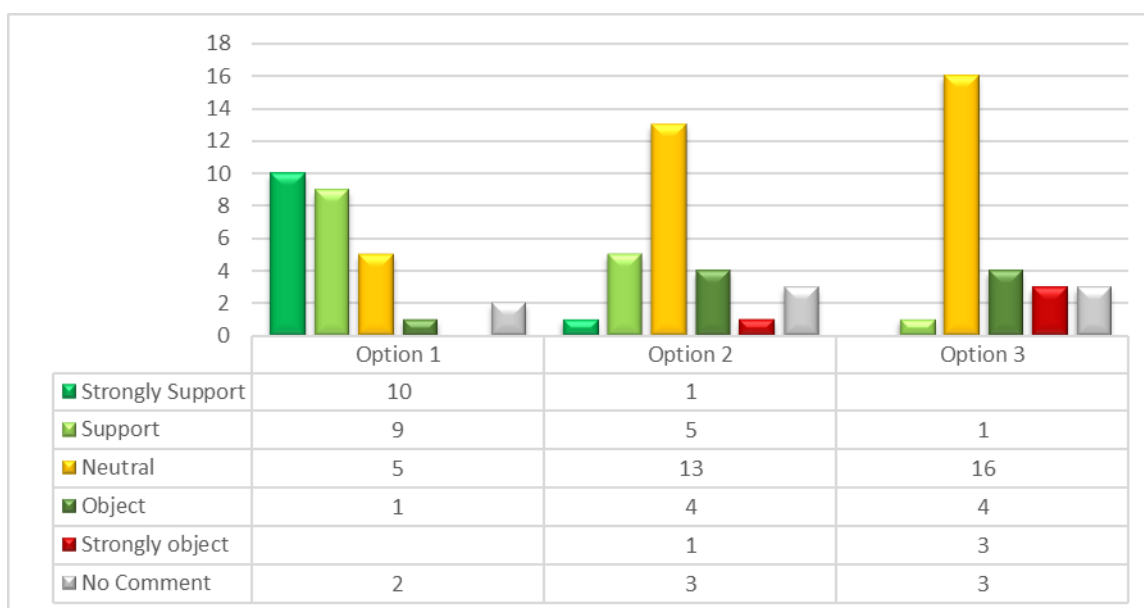| Stakeholder Target Group	Number of Webinars	Number of Attendees	Attendees
Open Sessions	3	29	ANSPs: DSNA, Eurocontrol CFMU, ANS Finland, EANS Estonia, Eurocontrol, Isavia Iceland, LGS Latvia Airports: Southend, Biggin Hill, Swansea, Newquay, Brize Norton, Northolt, Ports of Jersey SATCO CFSPs: FlightKeys, Lido, Lufthansa Systems NATMAC: Association Remotely Piloted Aircraft Systems UK, British Airlines Pilots Association, British Helicopter Association, General Aviation Safety Council, Light Airlines Association, Low Fares Airlines Other: CAA, IATA, Spaceport Cornwall, Black Arrow Space Technologies, Space Wales, Aerospace Cornwall

2.24   For the avoidance of doubt, none of these webinars produced direct feedback to the consultation because their purpose was to answer participants' questions and encourage them to submit a response. However, the sessions provided useful feedback to update the FAQs.

2.25   All webinars were recorded; these are available to the CAA upon request; however, they will not be published.

2.26   After each webinar, we sent a follow-up email to invitees/attendees for whom we had contact details to thank them for their attendance, including the link to both consultation pages to maximise the response conversion. See Annex A Engagement Evidence 6 & 7.

2.27   Responses have been managed and uploaded to the portal by the CAA.

3. Summary of Consultation Responses

3.1 There were 27 responses received in the 12-week consultation period. All responses were submitted via the online portal.

3.2 The responses have been analysed and themed. The categorisation of responses is split into those which may impact final proposals and those which would not. This is summarised later, in Section 4 of this document. Stakeholder feedback which may influence the final design has been included in Table 3 below and will be carried forward to Stage 4A.

3.3 Responses were received from 9 targeted airline stakeholders: Delta Airlines, Emirates Airlines, Flybe Ltd, Ryanair, Virgin Atlantic, TUI Airline, British Airways, KLM Royal Dutch Airlines, American Airlines.

3.4 Responses were received from 2 targeted CFSPs: Sabre and Lufthansa Systems.

3.5 Responses were received from 3 ANSPs: IAA (Ireland); NAVIAIR (Denmark); and DSNA ACC Brest (France).

3.6 The French Civil Aviation Authority (DGAC) submitted a response

3.7 A response was received from the Ministry of Defence (MoD), which included a supplementary document to support their response. See Annex A Engagement Evidence 8.

3.8 Nine airports responded: Cornwall Newquay Airport, Farnborough Airport, London City Airport, Exeter & Devon Airport, Bournemouth Airport, Bristol Airport, Cardiff Airport, Southampton Airport, Heathrow Airport

3.9 Two responses were received from targeted NATMAC stakeholders: British Helicopter Association (BHA) and British Gliding Association (BGA).There were no responses from agencies/individuals not specifically targeted.

CONSULTATION RESPONSES: SUPPORT FOR AIRSPACE CHANGE & OPTION PREFERENCE

3.10 Stakeholders were asked if they supported the Airspace Changes being proposed. They were then asked to rank their response to the specific options.

3.11 Overall, the airspace change is supported, with 24 of the 27 responses showing SUPPORT for the proposed changes. 2 selected No Comment and 1 selected Ambivalent. A breakdown of all responses by stakeholders is in Appendix C: Stakeholder responses showing option preferences.

3.12 Stakeholders were asked to rank their level of support for each of the three proposed options:

• Option 1 - All ATS Routes are removed.

• Option 2 – ATS route structure is partially maintained.

• Option 3 – ATS route structure is maintained, but aircraft are not constrained to flight plan the routes within the FRA.

3.13 Figure 2 shows the summary of Design Option preferences and shows there is strongest support amongst stakeholders for Option 1.

	Option 1	Option 2	Option 3
■ Strongly Support	10	1	
■ Support	9	5	1
■ Neutral	5	13	16
■ Object	1	4	4
■ Strongly object		1	3
■ No Comment	2	3	3

Figure 2 FRA D2 Stakeholder Design Option Responses

3.14   Option 1 has 19 responses of support, with 10 Strongly Support and 9 Support, 5 Neutral responses and 2 No Comment responses. 1 response Objected to this design option, no comments were provided as rationale.

3.15   Option 2 has 6 responses of support, with 1 Strongly Support and 5 Support; 13 Neutral responses and 3 No Comment responses. 4 responses Object to this design option, and 1 Strongly Objects. American Airlines indicated a preference for this option, their comments can be seen in Table 4.

3.16   Option 3 has 1 response of Support, 16 Neutral responses and 3 No Comment responses. 7 responses object this this design option (4 Object and 3 Strongly Object).

3.17   3 comments were provided in relation to these option selections, see Table 4 Comments 1-3.

CONSULTATION RESPONSES: ADDITIONAL QUESTIONS.

3.18   NATS also asked eight additional questions of stakeholders to determine levels of preference for aspects of the design. Some of these were targeted at specific stakeholders, as indicated below, but all were available for all stakeholders to respond to.

3.19   Question: To what degree do you agree with the strategy to request dispensation from the 2014 SUA – Safety Buffer Policy for Airspace Design Purposes? (Selectable ranking).

There were 23 responses to this question. 15 respondents agreed overall, with 6 Strongly Agree and 9 Agree responses. 8 respondents are Neutral. No respondents disagree (see Figure 3). There was 1 comment in relation to this question, see Comment 2 in Table 3 below.

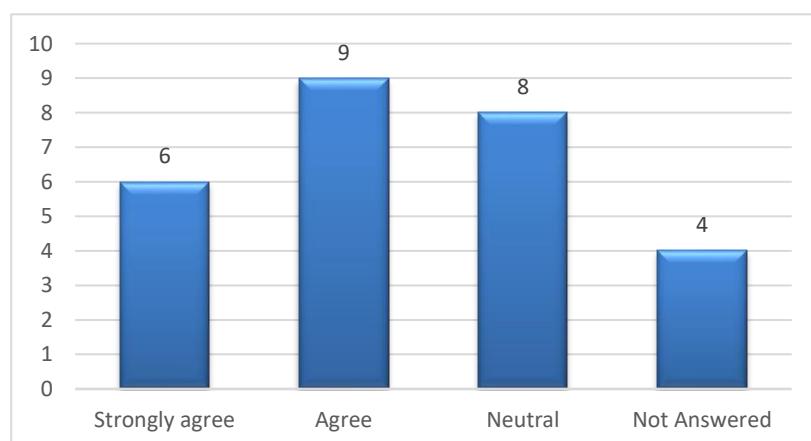Overall, it can be determined that stakeholders support this strategy, or they have no opinion.

Figure 3 Views on dispensation from Safety Buffer Policy

3.20   Question: To what degree would you support the extended use of ASM booking protocols to maintain the en-route network capacity (should the CAA not be minded to grant dispensation from the 2014 SUA Safety Buffer Policy for Airspace Design Purposes)? (Selectable ranking).

There were 21 responses to this question. 10 respondents agreed overall, with 4 Strongly Agree and 6 Agree responses. 9 respondents are Neutral (have no opinion). 2 respondents disagree with this aspect (see Figure 4). There was 1 comment in relation to this question, see Comment 4 in Table 4 below.

Overall, it can be determined that where stakeholders have an opinion on this, the majority are in support of this strategy. However, it should be noted that the extended use of ASM booking protocols would aim to maintain or improve airspace capacity, but this would likely restrict access to SUA compared to the current situation.
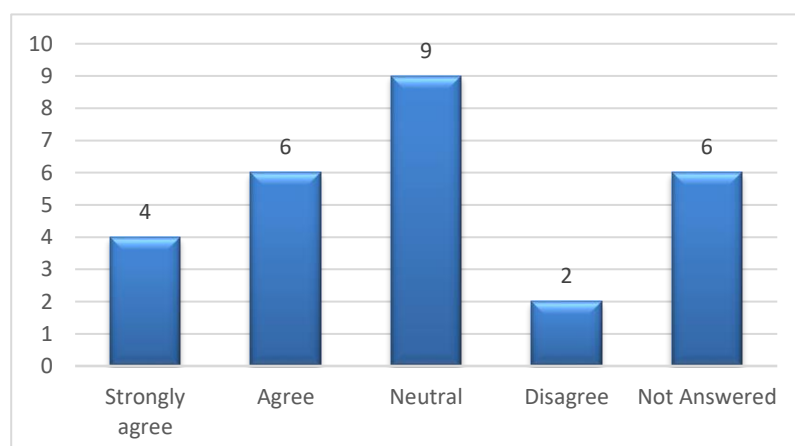

Figure 4 Views on extended use of ASM booking protocols

3.21   Question: To what extent do you agree with the lateral boundaries of FRA? (Selectable ranking).

There were 23 responses to this question. 14 respondents agreed overall, with 5 Strongly Agree and 9 Agree responses. 8 respondents are Neutral (have no opinion). 1 respondent disagrees with this aspect (see Figure 5). There was 1 comment in relation to this question, see Comment 3 in Table 3 below.

Overall, it can be determined that where stakeholders have an opinion on this, the majority are in support of this strategy.
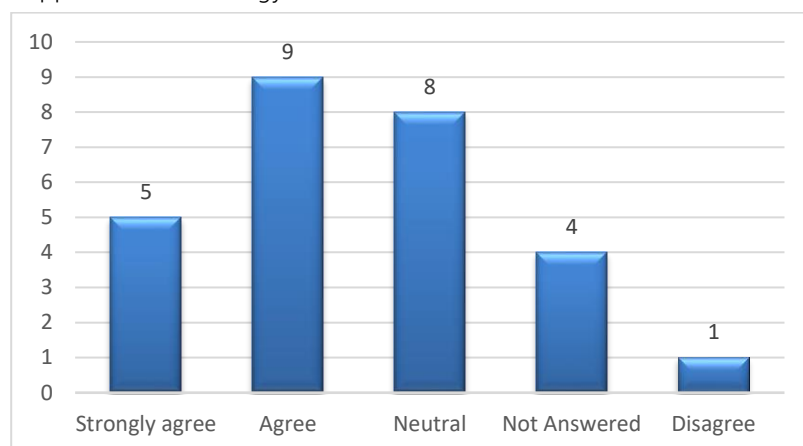
Figure 5 Views on proposed lateral FRA boundaries

3.22   Question: (MoD specific): To what extent do you agree with our proposal to amend the en route status for GAT west of 5°W agreement? (Selectable ranking).

There were 18 responses to this question. 3 respondents agreed overall, with 1 Strongly Agree and 2 Agree responses. 15 respondents are Neutral (have no opinion) (see Figure 6). The MoD (targeted stakeholder for this question) responded that they Agree. The MoD commented on this aspect, see Comment 5 in Table 4.

Overall, it can be determined that this specific aspect of the Airspace Change Proposal is supported by those who have an opinion.
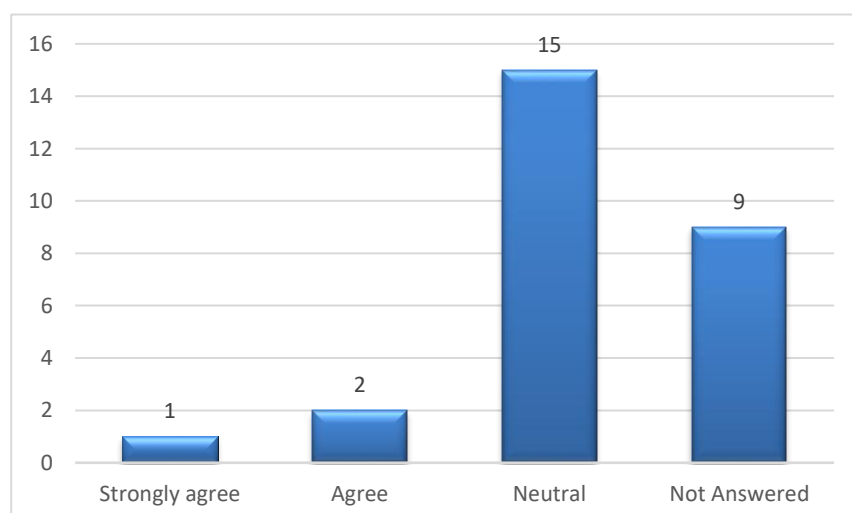
Figure 6 Views on the en route status of GAT agreement

3.23   Question: (MoD specific): To what extent do you agree with the proposal to amend the Standing Coordination Procedures with 78 Squadron? (Selectable ranking).

There were 17 responses to this question. 3 respondents support, with 3 Agree responses. 14 respondents are Neutral (have no opinion) (see Figure 7). The MoD (targeted stakeholder for this question) responded that they Agree. The MoD commented on this aspect, see Comment 5 in Table 4.

Overall, it can be determined that this specific aspect of the Airspace Change Proposal is supported by those who have an opinion.
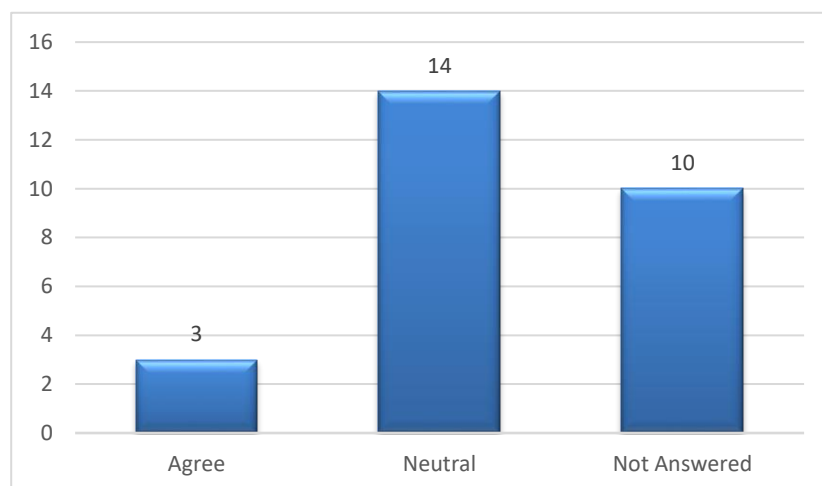

Figure 7 Views on the amendment to Standing Order agreements with 78 Squadron

3.24   Question: To what extent do you agree with the impact assessment of FRA on general aviation or sport aviation airspace users? (Selectable ranking).

There were 23 responses to this question. 8 respondents support, with 2 Strongly Agree and 6 Agree responses. 15 respondents are Neutral (have no opinion) (see Figure 8).

Overall, it can be determined that stakeholders believe that the proposals are beneficial to GA/sport users, or they have no opinion.

There were 2 comments in relation to this aspect, see Table 4 Comments 6 & 7.
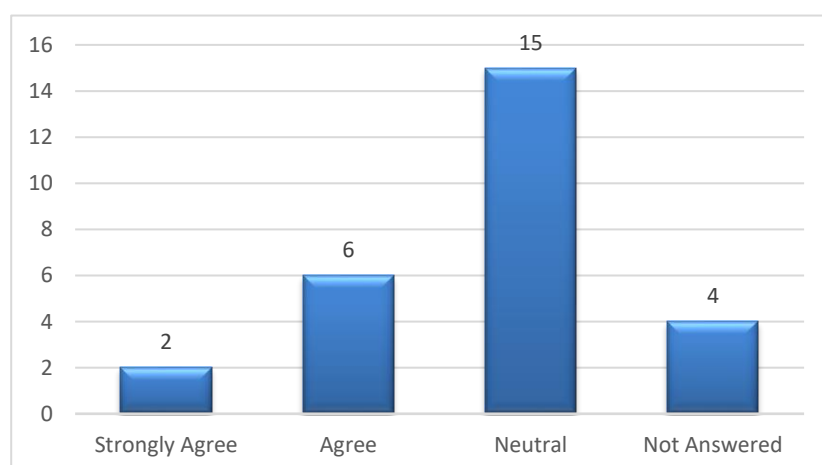
Figure 8 Views on whether FRA will have a net beneficial impact on GA/sport aviation

3.25   Question: To what extent do you agree with our assumptions on climb and descent gradients used to assign FRA Arrival and Departure Points? (Selectable ranking).

There were 22 responses to this question. 9 respondents support, with 3 Strongly Agree and 6 Agree responses. 10 respondents are Neutral (have no opinion). 3 respondents Disagree (see Figure 9).

Overall, it can be determined that stakeholders largely agree with the assumptions on climb and descent gradients, or they have no opinion. There was 1 comment for this aspect, see Table 3 Comment 4.
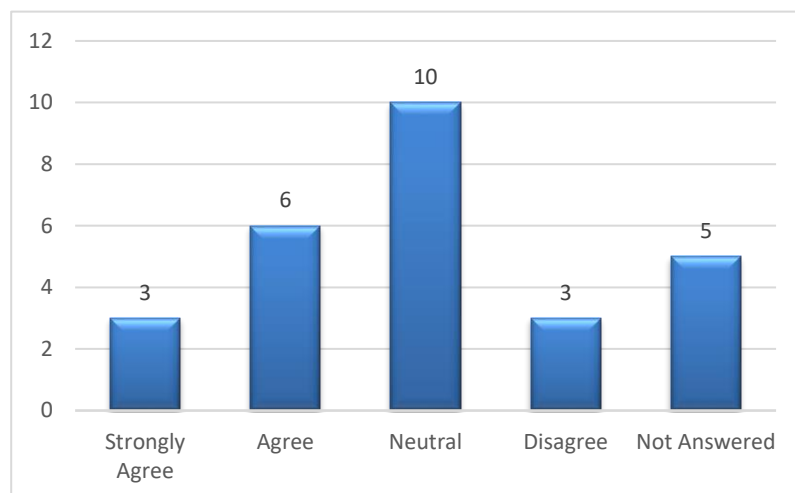
Figure 9 Views on assumptions on climb and descent gradients

3.26   Question: (IAA target stakeholder) To what degree do you support our proposal to introduce FRA in the BANBA CTA from FL245? (Selectable ranking).

There were 20 responses to this question. 12 respondents support, with 5 Strongly Agree and 7 Agree responses. 8 respondents are Neutral (have no opinion) (see Figure 9). The IAA (targeted stakeholder for this question) responded that they Strongly Agree.

Overall, it can be determined that stakeholders support the proposal to introduce FRA in the BANBA CTA from FL245, or they have no opinion. There was 1 comment in relation to this aspect, see Table 4 Comment 8.
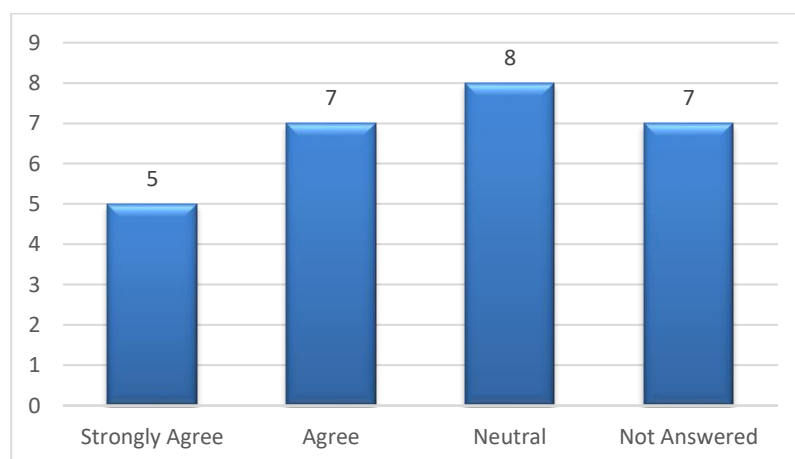
Figure 10 Views on the introduction of FRA in the BANBA CTA from FL245

4. Categorisation of Consultation Responses and Themes

4.1 The responses received have been reviewed and categorised; some comments had several different elements. All comments have been included in this section – those provided as overall feedback, and those provided to the specific questions asked.

4.2 The responses and associated elements were reviewed to determine two types: those which may lead to changes of the proposed design and those which do not. These have been split out in Sections 4.5 and 4.6 below.

4.3 Key themes from consultation responses

The tables below present the feedback from all stakeholders. There are several key themes which run throughout the consultation responses; some of these specific comments may impact the final design, some of them do not. These themes are:

- **Airspace structures**: Responses which comment on technical aspects of the airspace design; this includes CAS, boundaries, COPs etc.

- **FRA connectivity**: Responses which provide feedback on the proposed interface between FRA and LD1.1 below/lateral connectivity with ANSPs

- **RAD restrictions:** Responses commenting on the use of RAD restrictions

- **Impacts:** Response commenting on the environment, noise, GA etc impacts of the change

- **Buffer Policy:** Comments related to the proposed buffer policy

- **Option rationale:** Comments explaining option choice which are not covered by the above

- **Military Impacts:** Comments specifically related to the impact on military operations

4.4 8 response elements were captured as potentially having an impact on the final proposed design. These are summarised in Table 3, Section 4.5.

4.5 17 response elements were captured which do not impact the final proposed design. These are summarised in Table 4, Section 4.6

4.6   Responses which may impact the final proposal

Table 3: The following 8 responses may impact on the proposed design:

No.	Response & ID	Summary of comments	Themes of comment	Potential impact on the proposal	NATS response/action
1	Brest ACC (post engagement)	Brest ACC wish NATS to introduce the new COPs 'SALCO Sud' and 'SALCO Nord' as part of LD1.1 changes, and not with a delayed implementation date as proposed in the LD1.1 consultation material (See Annex A Engagement Evidence 9)	Airspace structures (COPs)	This would introduce the COPs at implementation, revise existing COPs, and provides the opportunity to reduce complexity in this airspace	This requires further development – carry forward to Step 4A.
2	British Airways (online portal) FRA_6	Agrees with dispensation from Buffer Policy – allows a more flexible approach. Recommends engagement with stakeholders when determining size and shape of SUA buffers.	Buffer Policy	Further engagement with stakeholders could impact the final design of SUA buffers.	This requires further development – carry forward to Step 4A.
3	British Airways (online portal) FRA_6	Agrees with lateral boundaries of FRA – this supports the expansion of FRA in the UK, connects with Irish airspace and addresses key from London airports to the NAT. Disappointed it does not connect with FRA D1 (busy corridor to the west of Liverpool overhead Bangor); this may constrain some traffic flows.	Airspace structures (FRA)	This could affect the lateral boundaries of this FRA deployment.	This requires further development – carry forward to Step 4A.
4	British Airways (online portal) FRA_6	Disagree with making assumptions based purely on BADA modelling. It only considers average climb gradients. Recommends talking to operators about how different aircraft operate in different operating environments.	FRA connectivity	This could affect the methodology used to assign FRA arrival and departure points.	This requires further development – carry forward to Step 4A.
5	Irish Aviation Authority (ANSP) (online portal) FRA_20	FRA Arrival/Departure points need greater definition for downstream sectors/centres (ie FRA Entry (E)/Exit (X) Intermediate (I) waypoints).	FRA connectivity	This could affect the designation of FRA significant points within the design.	This requires further development – carry forward to Step 4A.
6	Irish Aviation Authority (ANSP) (online portal) FRA_20	Implication of FRA significant waypoints on cross-border FRA and structural limitations. Specifically, flight plannable DCTs to waypoints where previously a DCT has been given off-track to the downstream sectors.	FRA connectivity	This could affect the designation of FRA significant points within the design.	This requires further development – carry forward to Step 4A.

7	Irish Aviation Authority (ANSP) (online portal) FRA_20	Concerns over the use of RAD to manage the FRA. Proposes a key deliverable should be the definition of optimal traffic capacity, linked with downstream sectors.	RAD restrictions	This could affect the designation of FRA significant points within the design.	NATS will continue to engage with the IAA to develop the RAD restrictions required to optimise both complexity and capacity. This requires further development – carry forward to Step 4A.
8	DAATM (uploaded document) LD1_20	Significant engagement has been undertaken between MoD and NATS on buffer policy for Danger Areas and Restricted Areas. The use of internal lateral and vertical buffers within DAs is not supported by the MOD, however, the MOD is open to other solutions and will work with NATS to achieve them.	Buffer Policy	This will inform the NATS safety management process to determine tolerably safe flight planning buffers for each SUA within the region.	This requires further development – carry forward to Step 4A.

4.7   Responses which do not impact the final proposal

The following 17 responses are comments provided in all the free text box sections. They do not provide any new information or suggestions that could lead to an adaptation in the final proposed design. Additional relevant feedback is captured, including any actions or considerations arising.

Table 4 The following responses do not impact on the proposed design

No.	Response & ID	Summary of comments	Themes of comment	Why the proposal is not impacted	Any relevant considerations/feedback
1	DAATM (uploaded document) FRA_25	The MOD prefer Option 1, to remove all routes in FRA, as it believes that a standardised approach across the UK (as a final solution) is the optimum and safest solution.	Option rationale	No comments containing new information or suggestions	No change to design
2	Irish Aviation Authority (ANSP) (online portal) FRA_20	Overall, the IAA ANSP supports the proposal and strongly supports Option 1 of this Consultation.	Option rationale	No comments containing new information or suggestions	No change to design
3	American Airlines (online portal) FRA_9	American Airlines support FRA. They preference Option 2 to assist in areas of high complexity where systemisation of the flows might be needed e.g., London TMA. When not needed, these could be disregarded, and FRA could be utilised	Option rationale	No comments containing new information or suggestions	NATS understand these views, however FRA Option 1 proposes to use RAD restrictions to manage the flows in FRA in areas of high complexity, which affords us much greater levels of flexibility to adapt in the future based on customer demand.

4	British Airways (online portal) FRA_6	Strongly agrees with use of ASM booking protocols – helps ensure fair and equitable use of airspace, balancing need for SUA activation against civilian overflight.	Buffer Policy	No comments containing new information or suggestions	No change to design
5	DAATM (uploaded document) FRA_25	The proposed changes in section 6.5 of the FRA Consultation document are acceptable to the MOD as there is predicted to be minimal impact on operations. This includes the Standing Agreement Coordination Procedures (SCP) in place between 78 Sqn Swanwick (Mil) and London Area Control (LAC), the definition of on-route within FRA (within 5nm of planned trajectory), the responsibility for initiation of coordination (joint) and the proposal to grant all GAT at FL245+ on-route status West of 5W the MOD.	Military Impacts	No comments containing new information or suggestions	No change to design.
6	British Gliding Association (BGA) (online portal) FRA_27	Notes that arrangements for Upper Gliding Area activation will be unaffected by FRA. This underpins the BGA's support of this ACP.	Impacts	No comments containing new information or suggestions	No change to design. Upper Gliding Areas are accommodated on a tactical agreement stipulated in a LoA, and this ACP does not intend to change this procedure.
7	British Airways (online portal) FRA_6	BA is not in a position to determine to what extent the release of CAS will have a net beneficial impact on general aviation or sport aviation airspace users. This is a question for the potential users of the released CAS.	Impacts	No comments containing new information or suggestions	No change to design
8	British Airways (online portal) FRA_6	Strongly agree with BANBA CTA remains aligned with IAA and NATS in order to provide seamless FRA across the UK with continuity into Irish airspace	Airspace structures	No comments containing new information or suggestions	No change to design
9	Irish Aviation Authority (ANSP) (online portal) FRA_20	Concerns for a negative environmental impact on downstream sectors – focus is on UK environmental airspace benefits	RAD restrictions/Impacts	No comments containing new information or suggestions	No change to design. NATS will continue to work with the IAA to maximise environmental benefits

10	Flybe Ltd (online portal) FRA_3	Flybe's aircraft will be unable to reach FRA above FL245 due to service ceiling. Wish to file at FL250 or lower FRA to FL235	General	No comments containing new information or suggestions	No change to design. System limitations restrict FRA to FL245 minimum.
11	London City Airport (online portal) FRA_12	Concepts are generic, seeking figures on specific routes	Impacts	No comments containing new information or suggestions	No change to design. Email sent to London City Airport with further clarity (see Annex A Engagement Evidence 10)
12	AGS Airports (online portal) FRA_17	No potential impact seen	General	No comments containing new information or suggestions	No change to design
13	Bristol Airport Ltd (online portal) FRA_15	Supportive of FRA to permit operational and environmental benefits to airline customers.	General	No comments containing new information or suggestions	No change to design
14	DAATM (uploaded document) FRA_25	The MOD accept that there will be no impact on air systems flying OAT but would like to understand any differences in GAT flight planning for those state/military air systems that are likely to file and fly GAT. FRA D1 have produced briefing material for flight planners and the MOD would like to know if there will be additional considerations for D2. The MOD are content with the procedures required for large scale exercise airspace and the requirement for temporary flight plan restrictions that go hand in hand with these airspace restrictions.	Military Impacts	No comments containing new information or suggestions	No change to design. NATS will continue to engage with the MoD.
15	Heathrow Airport Limited (uploaded document) FRA_18	Comments of support for combined changes with LD1.1	General	No comments containing new information or suggestions	No change to design.

16	DAATM (uploaded document) FRA_25	Content for HEM to be removed as an activity descriptor from EGD117 & EG D118	Buffer policy	NATS has been explicit about the interdependencies between LD1.1 design and FRA D2. This will be implemented in LD1.1 ACP.	No change to design, the amendment to activity descriptors will be included in the LD1.1 ACP. Included here for transparency of interdependent changes.
17	DAATM (uploaded document) FRA_25	If FRA D1 (implemented on 2 Dec 21) highlights any issues that affect the implementation of FRA in general, including D2, then the MOD are committed to working through any issues to find solutions to both D1, D2 and future deployments.	General	No comments containing new information or suggestions	No change to design. NATS acknowledges this and will continue to engage and work with the MoD to optimise FRA implementations.

5. Conclusion and Next Steps

5.1 This document has provided a summary of responses, which evidences the "we asked, you said" stage of this airspace change proposal.

5.2 We have shown how we have provided stakeholders with a comprehensive consultation document, supporting visualisations, and targeted engagement webinars to ensure our proposed changes are understood. We have actively communicated to promote two-way engagement as evidenced in this document.

5.3 The consultation responses are predominantly in support of NATS' preferred option. A clear preference is made by stakeholders for Option 1, which is for the implementation FRA with all ATS routes removed.

5.4 Stakeholders have indicated that they support the strategy to request dispensation from the 2014 SUA – Safety Buffer Policy for Airspace Design Purposes, or they have no opinion.

5.5 A majority have indicated support for the extended use of ASM booking protocols to maintain the en-route network capacity (should the CAA not be minded to grant dispensation from the 2014 SUA Safety Buffer Policy for Airspace Design Purposes), where they have an opinion. However, it should be noted that the extended use of ASM booking protocols would aim to maintain or improve airspace capacity but this would likely restrict access to SUA compared to the current situation.

5.6 For the proposed lateral boundaries of FRA, it is shown that where stakeholders have an opinion on this, the majority are in support of this strategy.

5.7 Support is given from the MoD for the proposal to amend the en route status for GAT west of 5°W agreement. Other stakeholders have provided support or had no opinion.

5.8 The MoD have also stated that they agree with the proposal to amend the Standing Coordination Procedures with 78 Squadron. Other stakeholders have provided support or had no opinion.

5.9 Stakeholders have indicated, where they have an opinion, they believe this proposal offers benefits to the General Aviation community.

5.10 Stakeholders have also indicated, where they have an opinion, they are largely in support of the assumptions made for the FRA climb and descent gradients, although a small minority disagree with these.

5.11 Stakeholders support the proposal to introduce FRA in the BANBA CTA from FL245, or they have no opinion.

5.12 All responses to the consultation have been reviewed and categorised into those which may impact the final proposal and those which do not. Key themes have been identified.

5.13 The next step will be to produce and publish the Step 4A document which will detail "you said, we did".

5.14 For that stage, we will consider the feedback given from our stakeholders, and consider amending the final design based on the relevant responses summarised in Table 3. We will undertake further engagement work with our stakeholders to develop alternative solutions, and the suggestions will be considered and either progressed or discounted, with justification provided.

5.15 We will also consider additional refinement and technical amendments which have come to light as part of NATS' policy of continually seeking airspace improvement.

5.16 The following step will be to write and publish the formal Step 4B Airspace Change Proposal and submit this to the CAA.

6. Glossary

ACC	Area Control Centre (there are two ACCs in the UK, Swanwick and Prestwick)
ACP	Airspace Change Proposal
AIP	Aeronautical Information Publication (where airspace and route definitions are published)
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	The UK Civil Aviation Authority
CAP	Civil Aviation Publication (publications produced by the CAA)
COP	Co-ordination Point
D2	Deployment Two, the second deployment of FRA.
DCT	(Direct) Waypoint to waypoint routing, which does not use an airway.
DSNA	Direction des Services de la Navigation Aérienne - French ANSP
Eurocontrol	European Organisation for the Safety of Air Navigation; with 41 members it seeks to achieve safe and seamless air traffic management across Europe.
FBZ	Flight Plan Buffer Zones – areas for flight planners to avoid, providing separation from Special Use Airspace.
FL:	Flight level, the altitude reference which aircraft use at higher altitudes using standard pressure setting, essentially units of 100ft, i.e., FL255 equates approximately to 25,500ft
FRA	Free Route Airspace
GAT	General Air Traffic
IAA	Irish Aviation Authority
ICAO	International Civil Aviation Organisation – an agency of the United Nations.
LAMP	London Airspace Modernisation Programme; established to redesign the airspace in and around the London TMA region, providing a more efficient airspace design, modernising the route structure and making better use of aircraft and ATC technologies.
NATMAC	National Air Traffic Management Advisory Committee
PBN	Performance Based Navigation – international requirements which standardise accuracy, safety and integrity for satellite navigation systems.
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.
SID	Standard Instrument Departure.
SRD	Standard Routing Document
STAR	Standard Terminal Arrival Route
SUA	Special Use Airspace – areas designated for operations of a nature that limitations may be imposed on aircraft not participating in those operations (i.e , military training areas)

Appendix A: List of Stakeholders

Any individual or organisation may submit a response; however, we specifically targeted the aviation organisations listed below.

Stakeholders have been categorised below according to the mapping described in Section 6.3 of the Consultation Strategy, where:

1=High Influence/High Interest; 2=High Influence/Low Interest; 3=Low Influence/High Interest; 4= Low influence/Low Interest   (* indicates addition to this list once consultation had commenced)

Airlines (all 1)

Aer Lingus	Emirates	NetJets
Air Canada	Etihad	Norwegian Air
Air France	Eurowings	Novair
Air New Zealand	FedEx	Qantas
Air Transat	FinnAir	Qatar Airways
American Airlines	Fly Dubai	Ryanair
Aurigny Airlines	Flybe	SAS
Austrian Airlines	Gamma Aviation	Saudia
Azerbaijan Airlines	German Wings	Singapore Air
BA Cityflyer	Gulf Air	South Africa Airways
Blue Islands	Iberia	Tag Aviation
British Airways	Iceland Air	TAP Air Portugal
Cathay Pacific	JetBlue	Thomson/ TUI
Cityjet	Jet2	Turkish Airlines
Delta Airways	KLM	United Airlines
DHL	Logan Air	UPS Europe
Eastern Airways	Lufthansa	Virgin Airlines
EasyJet	Malaysia Airlines	West Jet
	Middle East Airlines	WizzAir

Air Navigation Service Providers (ANSPs) (all 3 unless marked)

DSNA ACC Brest (France) (1)	DSNA ACC Paris (France) (3)
Irish Aviation Authority (IAA) (Ireland) (1)	Isavia (Iceland) (4)*
RAF 78 Squadron (UK Royal Air Force) (1)	LGS (Latvia) (4)*
Direction des Services de la Navigation Aérienne (DSNA) (France) (3)	LFV (Sweden) (4)*
	NAVIAIR (4)*
Maastricht Upper Area Control (MUAC) (3)	Borealis Alliance Executive (4)*
Eurocontrol Central Flow Management Unit (CFMU) (3)	Irish Aviation Authority (4)*
	EANS (Estonia) (4)*
DSNA ACC Reims (France)(3)	

Data Houses/ Flight-planning providers (all 4)

Air Support	Jeppesen
Aviation Cloud	Lufthansa Systems
Flight Keys	NavBlue
Lido	Sabre

Relevant NATMAC Members (4 unless marked)

Airlines UK	British Microlight Aircraft Association (BMAA)
Airspace4All (formerly FASVIG)	British Skydiving
Aviation Environment Federation (AEF)	Drone Major
Airport Operators Association (AOA)	European UAV Systems Centre Ltd
Aircraft Owners & Pilots Association (AOPA UK)	General Aviation Safety Council (GASCo)

Association of Remotely Piloted Aircraft Systems (ARPAS UK)

BAE Systems

British Airline Pilots Association (BALPA)

British Air Transport Association (BATA)

British Balloon & Airship Club (BBAC)

British Business & General Aviation Association (BBGA)

British Gliding Association (BGA) (1)

British Helicopter Association (BHA)

British Hang Gliding & Paragliding Association (BHPA)

General Aviation Alliance (GAA) (1)

Guild of Air Traffic Control Officers (GATCO)

Helicopter Club of Great Britain (HCGB)

Heavy Airlines

Honourable Company of Air Pilots

Iprosurv drone pilot network

Light Aircraft Association (LAA)

Light Airlines

Low Fares Airlines (LFA)

Ministry of Defence (MoD) via the Defence Airspace and Air Traffic Management (DAATM) (1)

PPL/ IR Europe

Airports[1] (3 unless marked)

EGGD	Bristol (1)	EGMC	Southend
EGFF	Cardiff (1)	EGKB	Biggin Hill
EGTE	Exeter (1)	EGNH	Blackpool
EGHI	Southampton (1)	EGFH	Swansea
EGHH	Bournemouth (1)	EGBJ	Gloucester
EGGW	Luton (1)	EGBP	Kemble (Cotswold)
EGSS	Stansted (1)	EGTK	Oxford
EGKK	Gatwick (1)	EGHQ	Newquay
EGLL	Heathrow (1)	EGTP	Perranporth
EGLC	London City (1)	EGVN	Brize Norton (via DAATM)
EGCC	Manchester (1)	EGWU	Northolt (via DAATM)
EGGP	Liverpool (1)	EGTU	Dunkeswell
EGLF	Farnborough (1)	EGBB	Birmingham

Other (4 unless marked)

Airlines for America

AIRE (Airlines International Representation in Europe)

Airline Operators Committee Heathrow (AOC Heathrow)

Board of Airline Representatives (BAR)

Bristow Helicopters (HM Coastguard)

Direction de la Securities de l'Aviation Civile (DSAC)

Direction du Transport Aérien (DTA)

Direction Generale de l'Aviation Civile (DGAC)

French Air and Space Force

Spaceport Cornwall*

Snowdonia Aerospace Centre*

Western Radar*

Skyports*

Network Rail*

IATA

IATA- Heathrow AOC

Irish Air Corps

Ports of Jersey SATCO

QinetiQ (1)

United Kingdom Space Agency (UKSA)

Virgin Orbit Ltd

Black Arrow Space Technologies*

Space Wales*

Aerospace Cornwall*

Fly Logix*

Windracers*

Sees.ai*

Callen-lenz*

Maritime & Coastguard Agency*

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1 MoD Airfields are not included since consideration of these is incorporated in the DAATM joint response.

Appendix B – Online Portal Questions

The following questions were included in the online portal for users to complete. Imposed answers have also been shown below, alongside whether the question was mandatory or not.

1. What is your name? (Mandatory)

2. What is your email address? (Mandatory)

3. Please enter your postcode, UK only. (Most relevant to your response home/work/organisation etc.) (Optional)

4. If responding from outside the UK, please supply an address or location description. (Optional)

5. Who are you representing? (Mandatory)

      a. I am responding as an individual (If the user selects this, Q6–8 will not be provided)
      b. I am responding on behalf of an organisation (If the user selects this, Q6–8 will be provided)

6. Please note all responses will be published. Are you happy for your name to be included in the response publication? (Mandatory)

      a. Yes – I want my response to be published with my name
      b. No – I want my response to be published anonymously

7. What is your organisation name? (Mandatory – if answered "b" to Q5)

8. What is your position/ title? (Optional)

9. Please rank your reaction to the individual aspects:

Do you support the airspace changes in this proposal? Support/Object
      SUPPORT – I support the proposed changes
      NO COMMENT – I neither support nor object
      AMBIVALENT – I have mixed feelings
      OBJECT – I object to the proposed changes

10. Please rank your reaction to the individual aspects

      FRA Option 1: All ATS routes are removed

      FRA Option 2: ATS route structure is partially maintained

      FRA Option 3: ATS route structure is maintained, but aircraft are not constrained to flight plan the routes within the FRA.

      Strongly Support; Support; Neutral; Object; Strongly object

11. To what extent do you agree with the strategy to request dispensation from the 2014 SUA – Safety Buffer Policy for airspace Design Purposes?
      Strongly agree; Agree; Neutral; Disagree; Strongly disagree

12. To what degree would you support the extended use of ASM booking protocols to maintain the en-route network capacity (should the CAA be minded not to grant dispensation from the 2014 SUA – Safety Buffer Policy for Airspace Design Purposes)?
      Strongly agree; Agree; Neutral; Disagree; Strongly disagree

13. To what extent do you agree with the lateral boundaries of FRA?
      Strongly agree; Agree; Neutral; Disagree; Strongly disagree

14. MoD Specific – To what degree do you agree with our proposal to amend the on route status for GAT west of 5W agreement?
    Strongly agree; Agree; Neutral; Disagree; Strongly disagree

15. MoD Specific – To what degree do you agree with our proposal to amend the Standing Coordination Procedures with 78 Sqn?
    Strongly agree; Agree; Neutral; Disagree; Strongly disagree

16. To what degree do you agree with the impact assessment of FRA on general aviation or sport aviation airspace users?

17. To what degree do you agree with our assumptions on climb and descent gradients used to assign FRA Arrival and Departure Points?
    Strongly agree; Agree; Neutral; Disagree; Strongly disagree

18. IAA: To what degree do you support our proposal to introduce FRA in the BANBA CTA from FL245?
    Strongly agree; Agree; Neutral; Disagree; Strongly disagree

13. If you have any other comments, please provide your feedback here (free text box)

You may upload a file, document, chart, letter or picture here (file upload option)

Appendix C: Stakeholder responses showing option preferences

ID	Organisation	Type	Overall Response	Option 1	Option 2	Option 3
FRA_1	Delta Air Lines	Airline	SUPPORT - I support the proposed changes	Strongly support	Object	Strongly object
FRA_2	Emirates Airline	Airline	SUPPORT - I support the proposed changes	Strongly support	Support	Neutral
FRA_3	Flybe Ltd	Airline	SUPPORT - I support the proposed changes	Strongly support	Object	Strongly object
FRA_4	Virgin Atlantic	Airline	SUPPORT - I support the proposed changes	Support	No Comment	No Comment
FRA_5	TUI Airline	Airline	SUPPORT - I support the proposed changes	Strongly support	Neutral	Neutral
FRA_6	British Airways	Airline	SUPPORT - I support the proposed changes	Strongly support	Strongly object	Neutral
FRA_7	KLM Royal Dutch Airlines	Airline	SUPPORT - I support the proposed changes	Support	Object	Object
FRA_8	Ryanair	Airline	SUPPORT - I support the proposed changes	Object	Support	Object
FRA_9	American Airlines	Airline	SUPPORT - I support the proposed changes	Support	Strongly support	Neutral
FRA_10	Cornwall Newquay Airport	Airport	AMBIVALENT - I have mixed feelings	Neutral	Neutral	Neutral
FRA_11	Farnborough Airport	Airport	SUPPORT - I support the proposed changes	Support	Neutral	Object
FRA_12	London City Airport	Airport	SUPPORT - I support the proposed changes	Neutral	Neutral	Neutral
FRA_13	Bournemouth Airport	Airport	SUPPORT - I support the proposed changes	Neutral	Neutral	Neutral
FRA_14	Exeter & Devon Airport Ltd	Airport	SUPPORT - I support the proposed changes	Strongly support	Support	Neutral
FRA_15	Bristol Airport Ltd	Airport	SUPPORT - I support the proposed changes	Strongly support	Support	Neutral
FRA_16	Cardiff Airport	Airport	SUPPORT - I support the proposed changes	Strongly support	Support	Neutral
FRA_17	Southampton Airport	Airport	NO COMMENT - I neither support nor object	No Comment	No Comment	No Comment
FRA_18	Heathrow Airport Limited	Airport	SUPPORT - I support the proposed changes	Support	Neutral	Neutral
FRA_19	Naviair	ANSP	SUPPORT - I support the proposed changes	Neutral	Neutral	Neutral
FRA_20	Irish Aviation Authority (ANSP)	ANSP	SUPPORT - I support the proposed changes	Strongly support	Object	Object
FRA_21	DGAC	French CAA	SUPPORT - I support the proposed changes	Neutral	Neutral	Neutral
FRA_22	Brest ACC	ANSP	SUPPORT - I support the proposed changes	Support	Neutral	Neutral
FRA_23	Sabre	CFSP	SUPPORT - I support the proposed changes	Strongly support	Neutral	Support
FRA_24	Lufthansa Systems	CFSP	SUPPORT - I support the proposed changes	Support	Neutral	Strongly object
FRA_25	Ministry of Defence	MoD	SUPPORT - I support the proposed changes	Support	Neutral	Neutral
FRA_26	British Helicopter Association	NATMAC	NO COMMENT - I neither support nor object	No Comment	No Comment	No Comment
FRA_27	BGA (British Gliding Association)	NATMAC	SUPPORT - I support the proposed changes	Support	Neutral	Neutral

End of document