



Ministry
of Defence

Gateway documentation:
Stage 3 Consult/Engage

CONSULTATION REPORT

ACP-2023-022

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- A. ACP-2023-022_S3_Consultation_Strategy_V1.3: [link](#)
- B. Citizen Space Public Consultation: [link](#)
- C. ACP-2023-022_Categorisation_Rationale_V1.0
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Glossary of Terms

Acronym	Definition
ACP	Airspace Change Proposal
AMS	Airspace Modernisation Strategy
ATC	Air Traffic Control
ATS	Air Traffic Service
ATZ	Aerodrome Traffic Zone
BVLOS	Beyond Visual Line of Sight
CAA	Civil Aviation Authority
CAP	Civil Aviation Publication
CAS	Controlled Airspace
CTA	Control Area
CTR	Control Zone
DA	Danger Area
DAA	Detect And Avoid
EAAUWG	East Anglia Airspace Users Working Group
FL	Flight Level
FRA	Free Route Airspace
GA	General Aviation
LAA	Light Aircraft Association
LARS	Lower Airspace Radar Service
LL	Lost Link
LOA	Letter of Agreement
MAA	Military Aviation Authority
MATZ	Military Aerodrome Traffic Zone
MCO	Media & Comms Officer
MOB	Main Operating Base
MOD	Ministry of Defence
NATMAC	National Air Traffic Management Advisory Committee
NATS	National Air Traffic Services
NOTAM	Notice to Aviation
PC	Parish Council
PD	Practice Diversion
PIR	Post-Implementation Review
RAF	Royal Air Force
RPAS	Remotely Piloted Air System
SON	Statement of Need
SUA	Special Use Airspace
SUACS	Special Use Airspace Crossing Service
TDA	Temporary Danger Area
TRA	Temporary Reserved Area

Introduction

This document forms part of the airspace change process as defined in Civil Airspace Publication (CAP)1616. ACP-2023-022¹ was commenced to enable a large Remotely Piloted Air System (RPAS) Protector RG Mk1, safe and efficient access to and from a nominated diversion airfield at Royal Air Force (RAF) Marham. The Ministry of Defence (MOD), and specifically Air Capability, is the Change Sponsor for this proposal (identification number ACP-2023-022). The airspace change proposal (ACP) passed the Stage 2 Gateway² on 9 May 2024 and has moved onto Stage 3, Consult.

This document aims to provide evidence that the Change Sponsor has adhered to the guidelines laid down in CAP 1616, following the ‘we asked, you said, we did’ mechanism and will:

- Demonstrate the consultation process was executed in accordance with Ref. A.
- Provide a precis of consultation responses together with an analysis of key themes identified at Ref. B.
- Inform how the proposal has been updated as a result of the consultation.
- Summarise the next steps prior to submitting all remaining documentation within the timeline agreed with the CAA.

Background

The main operating base (MOB) for Protector is RAF Waddington, where permanent segregated airspace in the form of a Danger Area (DA) has already been established. This is EGD324 and was implemented at the end of Nov 2023.

Under current timescales, routine Protector operation is likely to commence from RAF Waddington in Summer 2024 when the MOD will conduct test and evaluation activities prior to Protector formally entering into service³. During this, and for future activity in the UK, Protector will require a nominated permanent diversion airfield to be made available in the event that, for any unforeseen reason, RAF Waddington becomes unavailable. Following investigation into several military airfields, RAF Marham has been identified as the most suitable and preferred diversion airfield. Whilst Protector’s MOB remains RAF Waddington, there may be occasions when access to RAF Marham is required for operational reasons.

This ACP seeks to establish suitable airspace to enable Protector RG Mk1 safe and efficient access to RAF Marham as a nominated diversion airfield beyond the timeframe for the airspace trial mentioned above. Version 2.0 of the Statement of Need (SON) can be viewed via the CAA ACP Portal⁴ and states that the objective of the proposed change is to establish suitable airspace enabling

¹ Each airspace change proposal (ACP) has a unique identifier allocated by the CAA. ACP-2023-022 is the airspace change identification of the ACP, which is entitled “RPAS operations to/from a nominated diversion airfield”.

² Guidance on the regulatory process for airspace change is available at [CAP1616F: Guidance on the Permanent Airspace Change Process \(caa.co.uk\)](https://www.caa.co.uk/CAP1616F-Guidance-on-the-Permanent-Airspace-Change-Process).

³ Protector In-Service Date is currently expected to be early 2025.

⁴ The SON can be found on the CAA ACP Portal here: [Airspace change proposal public view \(caa.co.uk\)](https://www.caa.co.uk/Airspace-change-proposal-public-view)

safe and efficient access to a nominated diversion airfield for the Beyond Visual Line Of Sight (BVLOS⁵) RPAS, Protector.

Executive Summary

Consultation for ACP-2023-022 launched 11 June 2024 and ran for seven weeks. A common set of Consultation documents were offered to all stakeholders, including non-aviation stakeholders, to describe the requirements for the airspace change, explain how the proposal had developed through the various stages of the ACP process and highlight any potential impact. The documents were made available on the CAA Airspace Portal⁶ and Citizen Space platform⁷. Documentation included an 'At-A-Glance Document', providing an Easy-Read summary of responses to anticipated and recurring queries raised during the Consultation, together with information regarding how to join a public drop-in event held via webinar. A local press and media campaign was also undertaken.

Thirteen stakeholders responded to the Consultation, which is an indication of the extensive previous engagement conducted six months prior for a Temporary Danger Area (TDA) of the same design construct and management procedures under ACP-2023-047⁸. Seven stakeholders were in support of the proposal, six were unsure or didn't state a preference. Applicable feedback from Stage 2 was brought forward into the Consultation. Prominent themes observed during combined engagement activity were:

- Access to the DA, and;
- The designated separation level within the airspace construct.

Following categorisation of all feedback, the Change Sponsor concluded there was no impact to the final ACP.

⁵ The MAA Master Glossary defines BVLOS as the operation of a Remotely Piloted Aircraft beyond a distance where the Remote Pilot is able to respond to or avoid other airspace users by visual means.

⁶ The SON can be found on the CAA ACP Portal here: [Airspace change proposal public view \(caa.co.uk\)](https://www.caa.co.uk/air-space-change-proposal-public-view)

⁷ The Citizen Space platform can be found at Ref B.

⁸ ACP-2023-047 can be viewed here: <https://airspacechange.caa.co.uk/PublicProposalArea?pID=254>

1 Consultation (We Asked)

1.1 Consultation Summary

1.1.1 The Consultation was conducted between 11 June 2024⁹ and 2 August 2024 in accordance with Ref. A and CAP 1616, to provide suitable opportunity for any interested parties to provide feedback on the ACP.

1.1.2 **Emails.** A total of 122 previously identified individual stakeholders from 80 organisations were contacted directly by email at Consultation launch on 11 June 2024 to notify them of the launch of the Consultation. The launch email to stakeholders provided details of the Consultation and how to provide feedback, (including links to the Civil Aviation Authority (CAA) ACP Portal and the Citizen Space feedback platform (ref B). Information regarding a public drop-in event by means of an online Webinar was also included. All stakeholders were sent an email reminder to submit feedback via email on 3 July 2024.

1.1.2.1 One stakeholder from a local aviation flying group requested to be omitted from all future correspondence.

1.1.2.2 The appropriate Member of Parliament was contacted at the start of consultation; however, feedback was not received. Parliament was subsequently dissolved for the General Election and state opening of Parliament occurred on 17 July 2024. The Change Sponsor elected not to contact the new MP after 17 July due to the lack of time between appointment and consultation closing date, as well as the engagement already conducted with the relevant local authorities.

1.1.2.3 Targeted stakeholders were expected, as over-arching bodies, to consider the information provided and submit feedback on behalf of their stakeholders or members.

1.1.2.4 The complete list of stakeholders contacted by email is at [Appendix A](#); Table 1 summarises the stakeholder numbers by group.

Table 1: Number of Stakeholders (Organisations) Contacted, by category	
National Aviation Stakeholders	
National Air Traffic Management Advisory Committee (NATMAC) members	32
Local Aviation Stakeholders	25
Other Aviation Stakeholders	6
Non-Aviation Stakeholders	
Local Authorities	11
Environmental Organisations	6

1.1.3 **Press Release.** Promulgation of the ACP consultation was posted on appropriate social media sites and distributed to local news media outlets at Consultation launch on 11 June 2024, and again on 3 July 2024. All media platforms utilised during consultation are listed at Table 2, with the aim of reaching a variety of stakeholders. The press release was distributed by the RAF Marham Media & Comms Officer (MCO) who determined the relevant local audience. The press release items are attached at [Appendix B](#).

⁹ Intended launch date of 10 June 2024 postponed by one day due to timing of CAA authorisation to proceed.

Name	Medium
[REDACTED]	Press Release to local journalist
[REDACTED]	Press Release to local journalist
[REDACTED]	Press Release to local journalist
RAF Marham (External)	Facebook Page
Marham Community	Facebook Page

1.1.4 **Postal Communication.** All Consultation communication contained advice on how to submit a written response for those unable to use electronic means.

1.1.5 **Webinar.** A public drop-in event was hosted by the Change Sponsor, via webinar, on 11 July 2024. This followed the email, social media and press release reminders to all stakeholders to submit feedback on 3 July 2024, thus attempting to ensure stakeholders were prompted to participate. A reminder email was sent to all identified stakeholders on the morning of the Webinar. The webinar comprised of a presentation delivered hourly at 09.00, 10.00 and 11.00, suitable for non-aviation stakeholders, each followed by a Q&A session. Participants were not able to submit formal feedback during the webinar, but were encouraged to utilise the Citizen Space online portal (Ref B). The presentation can be found at [Appendix C](#).

1.1.6 **Face to face communication.** The bi-annual East Anglia Airspace Users Working Group (EAAUWG) took place at RAF Marham on the 13 June 2024, attended by local aviation stakeholders. The Change Sponsor delivered a presentation to provide an update on the ACP, which included details of the methods by which stakeholders were able to contribute to the consultation. The presentation can be found at [Appendix D](#) with the minutes from the meeting at [Appendix E](#).

1.1.7 **Supporting documentation.** To aid those providing comment via the online Feedback Form, the following documentation was available on the CAA Portal and uploaded to Citizen Space (Ref B) electronically at the launch on 11 June 2024:

- Consultation Document – providing background information and details of the design options, including mitigations
- Full Options Appraisal – providing analysis of the design option against Baseline Options, factoring in safety and environmental impacts
- Consultation Strategy – outlining the audience, approach, material and length of the Consultation period required for this ACP
- At-A-Glance Document – providing an Easy-Read summary of responses to anticipated and most recurring queries raised during the Consultation

1.1.8 **Progress Review.** An assessment of the Consultation was conducted week commencing 17 July 2024 to evaluate if any adaptations to the Consultation were required. There were no additional recurring queries emerging from the feedback and thus, no necessity to update the FAQ document¹⁰. Although response numbers were low, this was deemed an indication of the extensive previous engagement conducted six months prior, for a TDA of the same design and management procedure construct in the same location under ACP-2023-047. Therefore, the Change Sponsor considered it unnecessary to extend the Consultation period or conduct additional events.

¹⁰ The FAQ Document can be found at References A and B

1.1.9 **Consultation Activity.** A precis of the Consultation activity is at Table 3 below.

Table 3: Stage 3: Consultation Activity			
Date	Event	Method	Details
11 Jun 24	Consultation Launch	Email	All previously identified stakeholders contacted
		Social Media	RAF Marham Facebook Page (External); Marham Community Facebook Page
		Press Release (local journalists)	[REDACTED] [REDACTED] [REDACTED] provided with press release from RAF Marham MCO
11 Jun 24	Stakeholder enquiry	Email	NATS and BGA representatives requested guidance on the location of documents on the CAA Portal – provided by Change Sponsor
13 Jun 24	EAAUWG	Presentation	Change Sponsor addressed Local Aviation Attendees to provide an update on the ACP
17 Jun 24	Stakeholder enquiry	Email	Representative from Cambridge City Airport requested a copy of the Webinar presentation/recording due to misreading the dates on the Consultation material
5 Jul 24	Feedback Reminder	Email	All previously identified stakeholders contacted
		Social Media	RAF Marham Facebook Page (External); Marham Community Facebook Page
		Press Release (local journalists)	[REDACTED] [REDACTED] [REDACTED] prompted to re-issue press release
11 Jul 24	Webinar Reminder	Email	All previously identified stakeholders contacted
11 Jul 24	Public Drop-in Webinar	Microsoft Teams	Hourly presentation delivered by the Change Sponsor, plus Q&A sessions
17 Jul 24	Response to stakeholder Requests for Information via Citizen Space	Email	Two emails sent direct to stakeholder to address requests for info
17 Jul 24	Progress Assessment	Analysis of feedback	No consequential adaptations to the Consultation

2 Summary of Consultation Responses (You Said)

2.1 Consultation Overview

2.1.1 This section is a synopsis of the Consultation responses submitted. The Change Sponsor encouraged all stakeholders to respond formally via the Feedback Form on Citizen Space.

2.1.2 **Emails.** The Change Sponsor received direct email responses from the representatives below, all of whom submitted feedback stating no further comment on the ACP:

- Clerk for the parish councils of Shouldham, Marham and Boughton;
- A stakeholder from Great Massingham Airfield;
- Natural England.

The Change Sponsor acknowledged the response from all stakeholders who requested confirmation of their feedback. A copy of all emails referenced above can be found within [Reference D](#); the feedback received by email was also uploaded to the Citizen Space portal at Ref. B.

2.1.3 **Press Release.** The Change Sponsor did not engage with individuals posting comments submitted via social media.

2.1.4 **Postal Correspondence.** No feedback was received via post.

2.1.5 **Webinar.** The online webinar event attracted six attendees, all of whom were from an aviation organisation. Although attendees were not able to submit feedback via the webinar, questions posed by attendees were documented and can be found at Table 4 below.

Organisation	Rep	Questions Asked	Answer Given	Other Comments
British Helicopter Association (BHA)	[REDACTED]	Nil	N/A	Request to send a link or meeting invite
Norwich Airport	[REDACTED]	Nil	N/A	
Norwich Airport	[REDACTED]	Nil	N/A	
Norwich Airport	[REDACTED]	CAT A movements: how will these be impacted?	An LOA will be implemented with the Air Ambulance organisations. Protector has high endurance and will hold for Cat A movements.	Good news on manning for LARS movements at RAF Marham
GASCO	[REDACTED]	Nil	N/A	Nil
Light Aircraft Association (LAA)	[REDACTED]	Airspace level of split: could it be	The Change Sponsor recognises the balance to be struck between hold times for civil aircraft versus operational ability for military aircraft.	Nil

Organisation	Rep	Questions Asked	Answer Given	Other Comments
		lowered to 7,000FT? ¹¹	The level of the vertical separation will be designated taking into account the needs of all airspace users	
		Will the Post Implementation Review be published?	Yes, by the MOD via the CAA Portal	Nil

2.1.6 **Citizen Space.** The Consultation Summary Report generated by Citizen Space can be found at [Appendix F](#) (and raw responses at Ref. B).

2.1.6.1 A total of 13 stakeholders responded at Stage 3. Seven stakeholders provided input directly onto Citizen Space; those received by email were also manually added (see Figure 1). Although the number of respondents was low, this was considered a result of extensive previous engagement, conducted six months prior for the TDA under ACP-2023-047¹², during which LOAs were implemented between the MOD and local airspace users. The LOAs are anticipated to be upheld for this ACP as the TDA comprises the same design construct, and management as this proposal¹³.

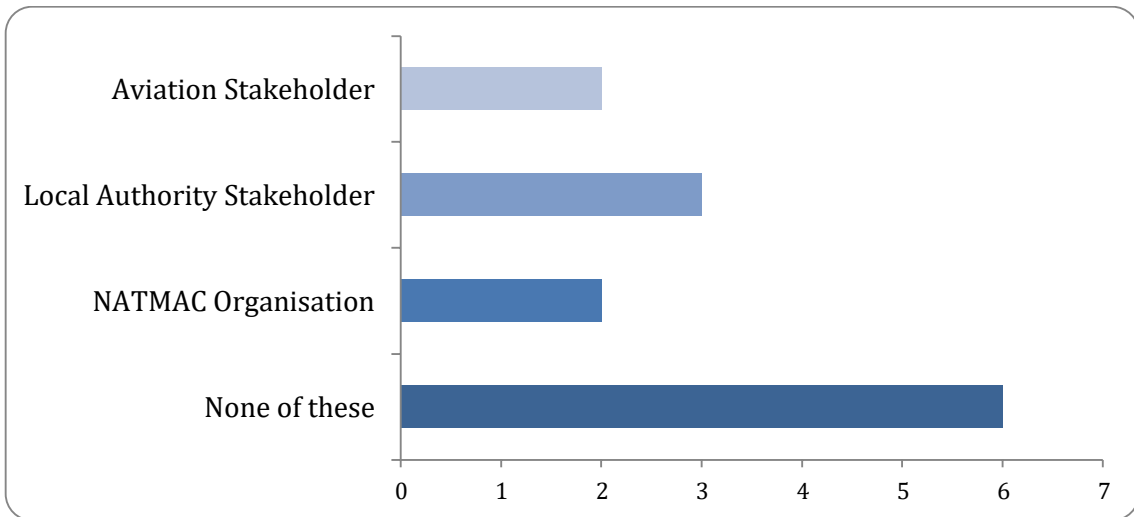


Figure 1: Association of the respondents. Source: Published responses at Ref B.

2.1.6.2 Respondents were asked if they were in support of the ACP (see Figure 2):

- Seven respondents were in support; five were individuals and two were representing aviation organisations
- Six stakeholders were unsure if they supported the ACP, one of which requested further information (this was provided, but no subsequent response was received). The three Local

¹¹ This suggestion was submitted as formal feedback at Stage 2, but not via the Citizen Space platform (Ref B), email or post for Stage 3. See para 2.2.

¹² ACP-2023-047 can be viewed here: <https://airspacechange.caa.co.uk/PublicProposalArea?PID=254>

¹³ Following engagement with stakeholders, the TDA was approved in March 2024 for implementation later this year.

Authorities and one Environmental Organisation submitted an email response stating they had no further comment and were categorised as 'not sure' as they did not state a preference. (see Figure 2)

- There were no respondents that indicated they did not support the ACP.

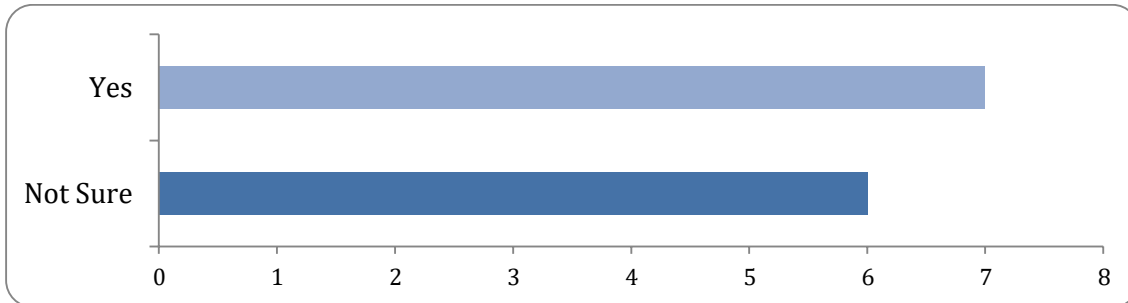


Figure 2: Support for the ACP. Source: Published responses at Ref B.

2.2 Feedback brought forward from Stage 2

2.2.1 Feedback from stakeholders received at Stage 2 considered relevant to Stage 3 has been recognised and incorporated into feedback alongside this consultation. A summary is at Table 5¹⁴.

Table 5: Stage 2 Feedback Applicable to Stage 3			
SH #	Theme	Description	Change Sponsor Comments @ Stage 2
Marham PC Shouldham PC	Additional Feedback	2 non-aviation stakeholders felt they did not have the expertise to comment on the ACP.	Change Sponsor produced a 'jargon free' overview, together with FAQs, to be made available to stakeholders at Stage 3, Consult.
LAA; East Winch; MOD	Height of vertical division in Option 2	Stakeholders suggested consideration is given to the division height: Lower height to increase capacity for GA transits; Higher height to accommodate F-35B practice flame out procedures in the lower section whilst Protector holds in the section above; Potential for a 3-tiered area rather than 2.	The airspace trial scheduled for Summer 2024 will provide an indication of the typical duration for Protector's occupation of Areas A & B. The Change Sponsor recognises the balance to be struck between hold times for civil aircraft versus operational ability for military aircraft. To ensure all airspace user requirements are considered, the internal division of the airspace construct will be a topic for further engagement at Stage 3 of the ACP.
NATS	Baseline scenarios	An AMS objective is the implementation of Free Route Airspace (FRA) to as low a level as is possible. NERL would consider this viable at FL195+ and intend to implement this in the future. The establishment of additional SUAs potentially undermines the efficacy of this capability and the associated benefits to operators in the vicinity e.g. Norwich Airport operations.	Change Sponsor has responded to the stakeholder to obtain clarification on this feedback and will ensure it is addressed at Stage 3, Consult.

¹⁴ Stage 2 - Airspace Change Design Options and Design Principles Evaluation can be found here: [Airspace change proposal public view \(caa.co.uk\)](https://www.caa.co.uk/airspace-change-proposal-public-view)

2.2.2 The representative from Marham and Shouldham Parish Councils (PC) were two of the four stakeholders that confirmed they had no further comments regarding the ACP at Stage 3.

2.2.3 The MOD submitted very similar feedback regarding the vertical division height at Stages 2 and 3.

2.2.4 The LAA also raised the topic of the vertical division height during the Webinar, but did not submit formal feedback at Stage 3.

2.2.5 On request from the Change Sponsor, NATS¹⁵ provided clarification on the feedback submitted at Stage 2; this is presented at paragraph 2.3.1.6.

2.3 Common Themes¹⁶

2.3.1 Stakeholders were invited to submit feedback on the themes previously identified during engagement for the TDA under ACP-2023-047 for the TDA. Stakeholders were also able to convey any other feedback in addition to the themes presented. A synopsis of the feedback received on each theme is provided below; all feedback submitted can be viewed in full at Ref C.

2.3.2 **Access (entering, exiting or transiting through the airspace).** No responses brought forward from Stage 2. Responses from Stage 3:

- Request for more information.
- Concern regarding access to (and in vicinity of) RAF Marham for diversions, practice diversions, general handling and combat manoeuvres and other routine training for military air systems¹⁷. A request for agreements to ensure access restrictions are minimised.
- Suggested potential increase to controller workload due to the monitoring and co-ordination of the Danger Area (DA). Request for flexible arrangements to minimise impact on airspace users (in particular, for air systems receiving an Air Traffic Service (ATS) from military ATC.

2.3.3 Proposed level of the internal division of the airspace:

- Responses brought forward from Stage 2. Three Stakeholders suggested consideration is given to the division height:
 - Lower height to increase capacity for GA transits;
 - Higher height to accommodate practice flame out procedures in the lower section whilst Protector holds in the section above;
 - Potential for a 3-tiered area rather than 2.
- Responses from Stage 3:
 - Request for more information.

¹⁵ Email 'RE: UC ACP-2023-022 Stage 2 Develop and Assess - Engagement Material' refers.

¹⁶ Responses that stated 'Nil' or 'No further comment' have not been included with the summary of common themes.

¹⁷ This feedback was also submitted at Stage 2, but had not been brought forward at Stage 3 as it relates to MOD internal procedures.

- Higher than FL105 preferable, to accommodate Practice Flame Out procedures when Protector is in the higher section.

2.3.4 **Size/dimensions of the airspace proposed.** No responses brought forward from Stage 2. Response at Stage 3:

- Request for more information.

2.3.5 **Proposed management & notification of the active airspace.** No responses brought forward from Stage 2. Response at Stage 3:

- Request for more information.

2.3.6 **Other Feedback:**

- Feedback brought forward from Stage 2.
 - the design of FRA and FRA relevant points such as FRA Departure and Arrival points are required to allow transition between lower (systemised) airspace and FRA. These are primarily used for management of traffic to and from Airports. Increasing numbers of SUA (in the lower or FRA volumes) are likely to constrain the efficient location of these transition points.
- Stage 3 responses:
 - Guidance requested on how to obtain further information online.
 - Additional comments from stakeholder substantiating their support for the ACP.
 - An observation that the requirement for segregated airspace is due to current CAA regulations and policy, which contradicts the intent of the UK Airspace Modernisation Strategy (AMS). Proliferation of additional SUA structures dis-benefits the wider network and undermines sustainability ambitions. A lack of Detect and Avoid (DAA) capability restricts any other solution outside of Controlled Airspace (CAS) (based on the MOD's approval to fly Protector in CAS) was also observed.
 - MOD stakeholders submitted a variety of questions applicable to internal operational agreements. Of interest to the wider aviation community were queries concerning the type of emergency that would determine priority over Protector; request for clarification on the term 'about to enter' the airspace; confirmation requested whether occupation of the airspace includes the time taken to exit the landing surface; enquiring regarding communication of lost link (LL) from Protector.

3 Categorisation of Consultation Responses (We Did)

3.1 Response Summary

3.1.1 The Change Sponsor categorised all comments into those that may impact the final ACP and those that do not. Comments were divided into 23 separate subject items from the stakeholders. Three comments brought forward from Stage 2 were also taken into account during categorisation. Two comments were duplicated by Stakeholders from Stage 2 during Stage 3 consultation. Responses that may impact the ACP were subcategorised into those which will lead to changes to the overall submission and those which will not. Categorisation conducted by the Change Sponsor is available on the Feedback Analysis Report at Ref C, broken down from each stakeholder into individual response items. The following definitions were used when analysing responses, as defined in CAP 1616f:

- **Responses which do not impact the final airspace change proposal.** Responses that have been heard, understood and classified as 'do not impact' the final ACP. The content of such responses would not include new information or ideas that could lead to an adaptation in a preferred design option or a new design option.
- **Responses which may impact the final airspace change proposal.** Responses which have been categorised as having the potential to impact on the final ACP and would include new information or ideas that the change sponsor believes could lead to an adaptation in a preferred design option or a new design option. Responses placed into this category are then assessed as either:
 - **Responses which have impacted the final airspace change proposal.** Responses that have been acted on and prompted changes to the final ACP.
 - **Responses which have not impacted the final airspace change proposal.** Responses that have not been acted on.

3.2 Responses which do not impact the final ACP

3.2.1 Stage 3 Feedback. Sixteen comments have been categorised by the change sponsor as having no impact on the airspace change proposal. This is predominantly due to the response being supportive of the ACP and having no further comment, or giving no further comment without specifying support for the ACP or not. In addition, the following comments were categorised as not impacting the ACP:

- NATS submitted a statement in the option to provide any other feedback, regarding the type of airspace selected for Protector operations due to current regulations and policy, as well as a lack of Detect and Avoid (DAA) capability on the sir system. This statement was also submitted by the stakeholder at Stage 2, where it was categorised as out of scope for the ACP (para 3.9 of Airspace Change Design Options and Design Principles Evaluation).
- The MOD enquired whether minimum fuel constitute emergency to give air systems suitable priority over Protector in the DA. The Change Sponsor considers the prioritisation of minimum fuel recoveries would be accommodated in accordance with routine procedure, whereby the most expeditious recovery is provided by the relevant ATS provider. Thus, the comments do not affect the final airspace design.
- The MOD queried the definition of 'about to enter' the airspace and suggested 5 minutes as an appropriate period. It would be inefficient to predefine a specific period that Protector is considered 'about to enter' the airspace, as this will be variable, dependent on the priority/performance/intentions of all air systems involved.

- The MOD queried whether occupation of the airspace includes time taken to exit the landing surface. The Change Sponsor clarified it does not take into account the time taken to exit the runway, only the descent and Automatic Take-off and Landing pattern to touchdown. However, the frequency of movements at RAF Marham means this is likely to have limited impact the period for entry/exit of the runway does not affect the final airspace design.
- Concerns were raised by the MOD regarding acceptance of diversion commitments. This is a matter for internal MOD discussion and subject to approval by individual ATC units on a case-by-case basis, which is outside the scope of this ACP.
- The method of communication to other air systems when Protector experienced Lost Link (LL) was requested by the MOD. Protector will transmit 7400 on Mode A and the pilot will establish alternate communication with ATC to confirm LL for onward transmission to affected air systems. The procedure does not impact the final airspace design.

3.2.2 Stage 2 Feedback. None of the responses brought forward from Stage 2 were categorised as not having an impact the final ACP.

3.3 Responses which may impact the final ACP

3.3.1 Stage 3 Feedback. The Change Sponsor assessed that 4 comments contained feedback that may impact the final airspace change proposal:

- One stakeholder requested further information throughout the feedback form and requested guidance on where they could obtain further information the ACP.
- One comment was in relation to accessing the DA.
- One comment suggested a potential increase to controller workload.
- One comments addressed the vertical separation level with the DA.

3.3.2 Stage 2 Feedback. Three comments were brought forward from Stage 2 that may impact the final ACP¹⁸:

- Two comments discussed alternate vertical separation levels within the DA.
- One comment referenced the impact of additional SUAs to FRA.

3.4 Responses which have not impacted the final ACP

3.4.1 Stage 3 Feedback. Of the comments received at Stage 3 that may have impacted the ACP, all were discounted as follows:

- Comments from one aviation stakeholder indicated the link to the documentation accompanying the consultation was not clear. The Change Sponsor addressed this by amending the introductory text on Citizen Space to provide more understandable guidance. Two direct emails were sent to the stakeholder, one explaining the action taken and one providing a link to the CAA Portal. The stakeholder did not offer subsequent feedback.

¹⁸ One additional comment from the MOD was not included in this count, due to it also being submitted at Stage 3

- MOD stakeholders expressed concern on the access to Marham for routine flying, diversions, Practice Diversions (PDs), general handling and other combat related manoeuvres by the military. Agreements and procedures were requested to ensure minimum disruption. Procedures to enable the maximum flexibility in airspace usage are already established for the trial airspace and are expected to be upheld for this ACP, with restrictions only required during periods that Protector is actually within the DA. When MOD air systems and PTR are required to operate with the same portion of airspace, restrictions only require deconfliction agreements and still allow operations, i.e. departures and recoveries. Copies of procedures and LOAs will be included with the ACP at Stage 4.
- An MOD stakeholder suggested an increase to controller workload might be a consequence of the ACP. The Change Sponsor noted that the MOD is developing procedures to enable maximum flexibility for ATC provisions inside the proposed airspace, whilst minimising ATC workload. This will take the form of a series of internal MOD LOAs, drafts of which will be included with the ACP submission at Stage 4.
- One stakeholder from the MOD would prefer the vertical separation level within the DA to be higher than FL105 to accommodate Practice Flame out (PFO) procedures for Station-based aircraft. The Stakeholder also submitted this comment at Stage 2. The level of the vertical separation has been designated at FL105, taking into account the needs of all airspace users. The Change Sponsor suggests PFO procedures can be achieved irrespective of the A/B FL105 split, through tactical ATC management. This will be captured in RAF Marham ATC Procedures and included with the ACP at Stage 4. The airspace trial under ACP-2023-047 will collect data to determine most effective level for vertical separation of the DA. Should the airspace trial demonstrate FL105 is not an effective level for vertical separation within the DA a review may be conducted. However, it should be noted that due to ongoing modifications to the Trial Plan, the data might not be available prior to submission of this ACP.

3.4.2 Stage 2 Feedback. The items of feedback brought forward from Stage 2 were all categorised as 'may impact the final ACP'. There were two in relation to the level of vertical separation within the DA and one comment submitted as 'other' comments.

- NATS considered the establishment of additional SUAs potentially undermines the efficacy of Free Route Airspace (FRA) and the associated benefits to operators in the vicinity e.g. Norwich Airport operations. Information on the mechanisms to be in place to minimise the impact on other airspace users was provided at Stage 2 (para 3.5 of Airspace Change Design Options and Design Principles Evaluation) and at Stage 3 within the Consultation material (para 4.1 of the Consultation Document). The stakeholder did not submit further comment on this feedback during Consultation at Stage 3.
- The Light Aircraft Association proposed that most GA VFR traffic will be operating at altitudes below 7000ft and suggested the level of vertical separation within the DA should be at, or nearer this level, to increase capacity for GA transits. As described at paragraph 3.4.1, bullet 4, the level of the vertical separation at FL 105 has been designated taking into account the needs of all airspace users.
- A representative from East Winch airfield suggested a modification to the DA construct to include a level of vertical separation below 1,500 AGL to include alterations to the dimensions to ensure East Winch remains outside the DA. As cited above, the level of the vertical separation has been designated at FL105, taking into account the needs of all airspace users. Prior to this consultation at Stage 3, an LOA was implemented between the MOD and East Winch for the airspace trial under ACP-2023-047. The LOA is anticipated to be upheld for this ACP. Should the airspace trial demonstrate FL105 is not an effective level for vertical separation within the DA a review may be conducted. However, it should be

noted that due to ongoing modifications to the Trial Plan, the data might not be available prior to submission of this ACP.

3.5 Responses which have impacted the final ACP

3.5.1 For the reasons set out in paragraph 3.4, none of the feedback received was categorised as impacting the final ACP.

4 Next steps in this proposal

4.1 Summary of next steps

4.1.1 This document will be submitted to the CAA as evidence as documentary evidence for the Stage 3 Assessment.

4.1.2 Table 6 below provides the anticipated timeline for remaining stages of the ACP.

Table 6: ACP-2023-022 Timeline	
Event as per CAP 1616	Planned Date
Stage 3 - Consult	5 September 2024
Stage 4 - Update and Submit	20 September 2024
Stage 5 - Decide	13 January 2025
Stage 6 - Implement	17 April 2025

Appendix A - ACP-2023-022: Stakeholder List

Aviation Stakeholders	Serial	Organisation	Representative/s	Contact Details
NATMAC	N1	Airlines UK	[REDACTED]	[REDACTED]
NATMAC	N2	Airport Operators Association (AOA)	[REDACTED]	[REDACTED]
NATMAC			[REDACTED]	[REDACTED]
NATMAC	N3	Airfield Operators Group (AOG)	[REDACTED]	[REDACTED]
NATMAC			[REDACTED]	[REDACTED]
NATMAC	N4	Aircraft Owners and Pilots Association (AOPA)	[REDACTED]	[REDACTED]
NATMAC	N5	Airspace Change Organising Group (ACOG)	[REDACTED]	[REDACTED]
NATMAC	N6	Association of Remotely Piloted Aircraft Systems UK (ARPAS-UK)	[REDACTED]	[REDACTED]
NATMAC	N7	Aviation Environment Federation (AEF)	[REDACTED]	[REDACTED]
NATMAC	N8	British Airways (BA)	[REDACTED]	[REDACTED]
NATMAC	N9	BAe Systems	[REDACTED]	[REDACTED]
NATMAC	N10	British Airline Pilots Association (BALPA)	[REDACTED]	[REDACTED]
NATMAC			[REDACTED]	[REDACTED]
NATMAC	N11	British Balloon and Airship Club	[REDACTED]	[REDACTED]
NATMAC	N12	British Business and General Aviation Association (BBGA)	[REDACTED]	[REDACTED]
NATMAC	N13	British Gliding Association (BGA)	[REDACTED]	[REDACTED]
NATMAC	N14	British Helicopter Association (BHA)	[REDACTED]	[REDACTED]
NATMAC	N15	British Microlight Aircraft Association (BMAA)	[REDACTED]	[REDACTED]
[REDACTED]			[REDACTED]	[REDACTED]
NATMAC	N16	British Skydiving	[REDACTED]	[REDACTED]
NATMAC	N17	Drone Major	[REDACTED]	[REDACTED]
NATMAC			[REDACTED]	[REDACTED]
NATMAC	N18	General Aviation Alliance (GAA)	[REDACTED]	[REDACTED]

Aviation Stakeholders	Serial	Organisation	Representative/s	Contact Details
NATMAC			[REDACTED]	[REDACTED]
NATMAC	N19	Guild of Air Traffic Control Officers (GATCO)	[REDACTED]	[REDACTED]
NATMAC	N20	Honourable Company of Air Pilots (HCAP)	[REDACTED]	[REDACTED]
NATMAC	N21	Helicopter Club of Great Britain (HCGB)	[REDACTED]	[REDACTED]
NATMAC	N22	Isle of Man CAA	[REDACTED]	[REDACTED]
NATMAC	N23	Light Aircraft Association (LAA)	[REDACTED]	[REDACTED]
			[REDACTED]	[REDACTED]
			[REDACTED]	[REDACTED]
NATMAC	N24	Low Fare Airlines	[REDACTED]	[REDACTED]
NATMAC	N25	Military Aviation Authority (MAA)	[REDACTED]	[REDACTED]
NATMAC	N26	Ministry of Defence - Defence Airspace and Air Traffic Management (MoD DAATM)	[REDACTED]	[REDACTED]
			[REDACTED]	[REDACTED]
			[REDACTED]	[REDACTED]
NATMAC	N27	NATS	[REDACTED]	[REDACTED]
[REDACTED]			[REDACTED]	
NATMAC	N28	Navy Command HQ	[REDACTED]	[REDACTED]
[REDACTED]			[REDACTED]	
NATMAC	N29	PPL/IR (Europe)	[REDACTED]	[REDACTED]
NATMAC	N30	UK Airprox Board (UKAB)	[REDACTED]	[REDACTED]
NATMAC	N31	UK Flight Safety Committee (UKFSC)	[REDACTED]	[REDACTED]
NATMAC	N32	United States Visiting Forces (USVF), HQ United States Country Rep-UK (HQ USCR-UK).	[REDACTED]	[REDACTED]

Aviation Stakeholders	Serial	Organisation	Representative/s	Contact Details
Loc Avn	L1	BOUGHTON NORTH	[REDACTED]	[REDACTED]
[REDACTED]			[REDACTED]	[REDACTED]
Loc Avn	L2	BOUGHTON SOUTH	[REDACTED]	[REDACTED]
[REDACTED]			[REDACTED]	[REDACTED]
[REDACTED]			[REDACTED]	[REDACTED]
[REDACTED]			[REDACTED]	[REDACTED]
[REDACTED]			[REDACTED]	[REDACTED]
[REDACTED]			[REDACTED]	[REDACTED]
Loc Avn	L3	CAMBRIDGE AIRPORT	[REDACTED]	[REDACTED]
[REDACTED]			[REDACTED]	[REDACTED]
[REDACTED]			[REDACTED]	[REDACTED]
Loc Avn	L4	CAMBRIDGE GLIDING	[REDACTED]	[REDACTED]
[REDACTED]			[REDACTED]	[REDACTED]
Loc Avn	L5	CHATTERIS	[REDACTED]	[REDACTED]
[REDACTED]			[REDACTED]	[REDACTED]
Loc Avn	L6	DRONE TRG	[REDACTED]	[REDACTED]
[REDACTED]			[REDACTED]	[REDACTED]
Loc Avn	L7	DUXFORD	[REDACTED]	[REDACTED]
Loc Avn	L8	EAST ANGLIA AIR AMBULANCE	[REDACTED]	[REDACTED]
[REDACTED]			[REDACTED]	[REDACTED]
[REDACTED]			[REDACTED]	[REDACTED]

Aviation Stakeholders	Serial	Organisation	Representative/s	Contact Details
Loc Avn			[REDACTED]	[REDACTED]
Loc Avn	L9	EAST WINCH	[REDACTED]	[REDACTED]
[REDACTED]			[REDACTED]	[REDACTED]
[REDACTED]			[REDACTED]	[REDACTED]
Loc Avn	L10	FELTHORPE AIRFIELD	[REDACTED]	[REDACTED]
[REDACTED]			[REDACTED]	[REDACTED]
[REDACTED]			[REDACTED]	[REDACTED]
Loc Avn	L11	FENLAND AIRFIELD	[REDACTED]	[REDACTED]
Loc Avn	L12	FENLAND FLYING SCHOOL	[REDACTED]	[REDACTED]
Loc Avn	L13	FERSFIELD AIRFIELD	[REDACTED]	[REDACTED]
Loc Avn	L14	FERSFIELD FLYING CLUB	[REDACTED]	[REDACTED]
Loc Avn	L15	FERSFIELD FLYING CLUB	[REDACTED]	[REDACTED]
Loc Avn	L16	GASCO	[REDACTED]	[REDACTED]
Loc Avn	L17	LUDHAM AIRFIELD	[REDACTED]	[REDACTED]
Loc Avn			[REDACTED]	[REDACTED]
Loc Avn	L18	MCAULLY FLYING GROUP	[REDACTED]	[REDACTED]
Loc Avn	L19	NORFOLK GLIDING CLUB	[REDACTED]	[REDACTED]
Loc Avn	L20	NORWICH AIRPORT	[REDACTED]	[REDACTED]

¹⁹ Requested removal from stakeholder contact list


Aviation Stakeholders	Serial	Organisation	Representative/s	Contact Details
Loc Avn			[REDACTED]	[REDACTED]
[REDACTED]			[REDACTED]	[REDACTED]
[REDACTED]			[REDACTED]	[REDACTED]
[REDACTED]			[REDACTED]	[REDACTED]
Loc Avn	L21	OLD BUCKENHAM AIRFIELD	[REDACTED]	[REDACTED]
Loc Avn	L22	OSPREY	[REDACTED]	[REDACTED]
Loc Avn			[REDACTED]	[REDACTED]
[REDACTED]			[REDACTED]	[REDACTED]
[REDACTED]	L23	PRIORY FARM TIBENHAM	[REDACTED]	[REDACTED]
[REDACTED]			[REDACTED]	[REDACTED]
[REDACTED]			[REDACTED]	[REDACTED]
Loc Avn	L24	SEETHING	[REDACTED]	[REDACTED]
Loc Avn	L25	UAV NORWICH POLICE	[REDACTED]	[REDACTED]
Other Avn	O1	Helicentre Aviation (Pipeline Inspection)	[REDACTED]	[REDACTED]
Other Avn	O2	Heli Air (Pipeline inspection)	[REDACTED]	[REDACTED]
Other Avn	O3	PDG Helicopters	[REDACTED]	[REDACTED]
Other Avn	O4	National Grid (Powerline inspection)	[REDACTED]	[REDACTED]
Other Avn	O5	Drone Wars	[REDACTED]	[REDACTED]
Other Avn	O6	Fly Cromer	[REDACTED]	[REDACTED]
LAs	A1	Norfolk County Council	Planning Dept Chair	[REDACTED]
LAs	A2		Airfield Wards	[REDACTED]

Aviation Stakeholders	Serial	Organisation	Representative/s	Contact Details
		Kings Lynn and West Norfolk District Council		c [REDACTED]
LAs	A3	Breckland District Council		[REDACTED]
LAs	A4	Marham Parish Council		[REDACTED]
LAs	A5	Boughton Parish Council		[REDACTED]
LAs	A6	MP for SW Norfolk	[REDACTED]	[REDACTED]
LAs	A7	Barton Bendish Parish Council		[REDACTED]
LAs	A8	Shouldham Parish Council		s [REDACTED]
LAs	A9	Fincham Parish Council		[REDACTED]
LAs	A10	Narborough Parish Council		[REDACTED]
LAs	A11	Police and Crime Commissioner for Norfolk		[REDACTED]
EOs	EO1	The Wash and North Norfolk Marine Partnership	[REDACTED]	[REDACTED]
EOs	EO2	Environment Agency		enquiries@environment-agency.gov.uk
EOs	EO3	Natural England		enquiries@naturalengland.org.uk
EOs	EO4	County Land and Business Association		mail@cla.org.uk
EOs	EO5	Campaign to Protect Rural England (CPRE)		info@cpre.org.uk
EOs	EO6	Wash & Norfolk Conservation	[REDACTED]	[REDACTED]


Appendix B - ACP-2023-022: Change Sponsor Social Media Press Release

The screenshot shows a social media post from the RAF Marham community notification page. The post is from the official RAF Marham account, dated 5 days ago. The main text of the post is "RAF Marham Airspace Change Proposal Consultation Period... See more". Below the text is a graphic featuring the Royal Air Force crest and the text "Ministry of Defence". A link is provided: "consultations.airspacechange.co.uk". The post title is "RPAS operations to/from a nominated diversion airfield - The Civil Aviation Authorit...". At the bottom of the post, it shows "View Insights" and "287 post reach". Interaction options include "Like", "Comment", and "Copy".

Marham Community Noti...



 **RAF Marham** 5 d · 

RAF Marham Airspace Change Proposal Consultation Period... See more


Ministry of Defence

consultations.airspacechange.co.uk
RPAS operations to/from a nominated diversion airfield - The Civil Aviation Authorit...

[View Insights](#) 287 post reach

 Like  Comment  Copy

RAF Marham's post



RAF Marham

11 June · 🌐

*** Please remember that the deadline for receipt of responses is Friday 2 August 2024. ***

RAF Marham Airspace Change Proposal Consultation Period

On the 11th of June 2024 a consultation period will begin for an airspace change proposal in the vicinity of RAF Marham.

The airspace change will enable Protector RG Mk1, a large Remotely Piloted Air System (RPAS), to access RAF Marham as a diversion airfield.

The purpose of this consultation period is to provide an opportunity for all stakeholders, including the general public, to comment on the proposed airspace design. This feedback will be collated and analysed by the Change Sponsor and help to shape the final proposal that will be submitted to the Civil Aviation Authority (CAA).

In accordance with UK regulation, this consultation will be undertaken through electronic communication. Details of the consultation and how to provide feedback can be found on the CAA Portal Airspace change proposal public view ([caa.co.uk](https://consultations.airspacechange.co.uk/.../acp-2023...)) and on the Citizen Space website: <https://consultations.airspacechange.co.uk/.../acp-2023...>

An online webinar will take place on Thursday 11th July between 0900 and 1200. Presentations will be delivered at 0900, 1000 and 1100 hrs, each followed by an opportunity for Q&A. Details of how to join the webinar are available on the CAA Portal and Citizen Space website. Participants are invited to register and send questions in advance to UASCDC-ACP@qinetiq.com

If stakeholders are unable to respond electronically, written responses may be submitted to:

The Airspace Change Manager
QinetiQ
4 Alpha Court
Kingsley Road
Lincoln
LN6 3TA

The scope of this consultation is limited to the implementation of segregated airspace in order to enable Protector to operate in and out of RAF Marham as a diversion only.

The deadline for receipt of responses is Friday 2 August 2024.

[CONSULTATIONS.AIRSPACECHANGE.CO.UK](https://consultations.airspacechange.co.uk)

RPAS operations to/from a nominated diversion airfield - The Civil Aviation Authority and Airspace Change sponsors - Citizen Space
Find and participate in consultations run on Airspace Change

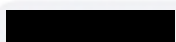
11

3 comments 1 share

 Like

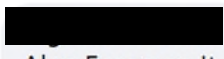
 Comment

Most relevant ▾



As I live in Fincham it would be nice to have a bit of information on how it will impact on us who live in the village please?

6 w



Alan Foreman It suggests Marham would be a diversion Airfield in the event Waddington became unavailable. This would be a very rare occurrence and would simply be an aircraft landing, then taking off again to recover to Waddington once that Airfield was open again. I would say an almost zero impact.

6 w



Appendix C - ACP-2023-022: Drop-in Event/Webinar Presentation

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Ministry of Defence

ACP-2023-022

████████████████████

Capability Acceptance Manager & RPAS UK
Airspace Integration Lead

ROYAL AIR FORCE

July 2024

THIS WEBINAR IS BEING RECORDED. BY CONTINUING TO PARTICIPATE, YOU CONSENT TO THE RECORDING.

About the Aircraft Protector RG Mk1

Ministry of Defence

UK Official

2

THIS WEBINAR IS BEING RECORDED. BY CONTINUING TO PARTICIPATE, YOU CONSENT TO THE RECORDING.

Protector RG Mk 1

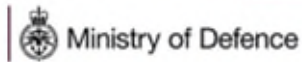
- Protector is a Remotely Piloted Air System (RPAS) being brought into service by the Ministry of Defence in 2024
- It can fly, navigate and communicate in the same way as a conventionally flown aircraft
- The Remotely Piloted Air System can respond to Air Traffic Control (ATC) instructions and clearances, accept Secondary Surveillance Radar codes and any ATC deviations
- Protector will be controlled at all times by RAF qualified crews at RAF Waddington.

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Protector Stats

Size and Speeds	Manoeuvrability	Capability
Cruise speed: 165kts Max Speed: 210kts Wingspan: 79ft Length: 38ft	Climb Rate: Surface to FL200: 1200fpm Above FL200: 640fpm Descent Rate: 600 – 1100fpm Turn Radius: 2nm Glide Ratio: 3.5nm/1000ft	Endurance – 40 hrs Fitted with single TPE 331-10 Turbo-prop engine

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Protector Operating Areas - UK

- Will operate within UK segregated airspace (danger areas) – Initially EGD323 complex off Eastern coast of UK near Newcastle, with future plans to be able to operate in all UK airspace
- Will utilise existing controlled airspace structure for transits – cannot use non-segregated airspace until 'Detect and Avoid' capability installed.



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ACP-2023-022

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RAF Marham ACPs

Protector requires a nominated diversion which has been identified as **RAF Marham**

Two ACPs ongoing for this airspace:

ACP-2023-047 – Temporary

- Airspace above RAF Marham in the form of a Temporary Danger Area (TDA)
- Has been **approved**, and will run from June – November 2024

ACP-2023-022 - Permanent

- Airspace above RAF Marham in the form of a Danger Area (DA), same dimensions as TDA proposed in ACP-2023-047.

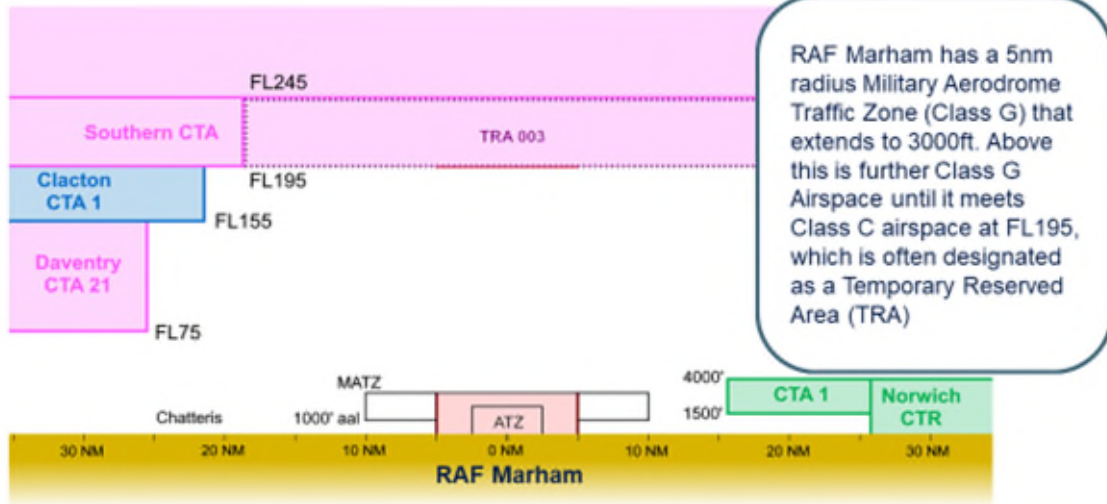


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Proposed Design Option

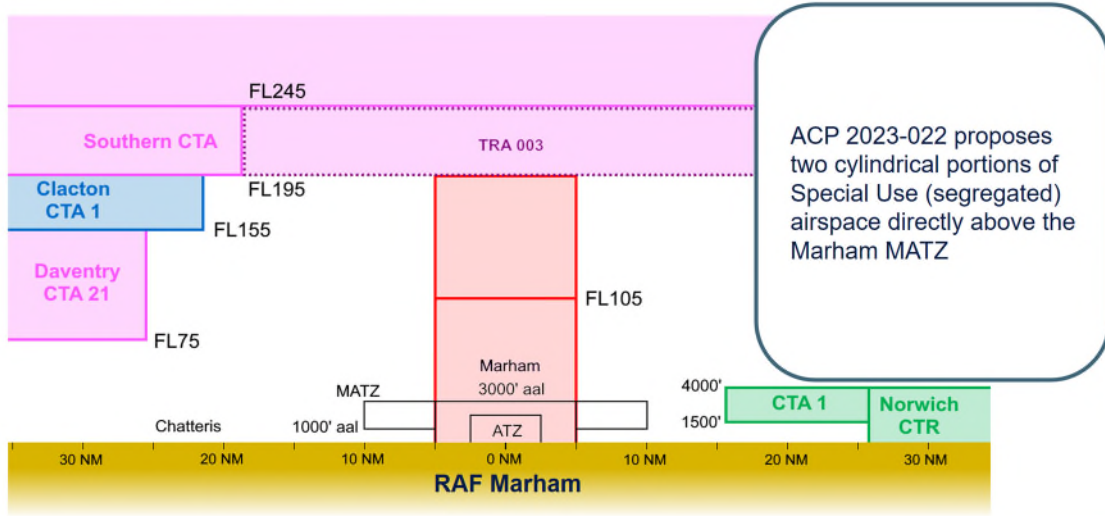
Class G = 'Uncontrolled Airspace'

'FL' = Flight Level. FL105 is equivalent to 10,500 ft



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Proposed Design Option



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Activation and Utilisation

- This airspace will be established for the entire duration of Protector sorties; initially core flying hours Mon – Fri, up to 3 times per week
- Notification of activation is via NOTAM (Notice to Aviation) at least 1 day in advance
- It will only be used:
 - For operational necessity e.g. actual diversion (in the unlikely event that RAF Waddington is unavailable or unsuitable for landing);
 - or
 - for practice diversion training (10 sorties soon after established, up to 25 sorties per year thereafter).



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Airspace Management

- Aviators requiring access to the airspace whilst the Danger Area is active will be able to request a **Special Use Airspace Crossing Service (SUACS)** from air traffic control
- A SUACS may be provided through any portion of the Danger Area which Protector isn't currently occupying, or immediately intending to occupy
- Protector is expected to occupy the airspace for a maximum of **20 minutes**.



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ACP-2023-022 Timeline

Description	Activity	Detail
Consultation starts	11 June 2024	
Consultation ends	2 August 2024	No further feedback will be considered after this date
Stage 4 – Update and Submit	20 September 2024	Final submission to CAA
Stage 5 - Decide	13 January 2025	CAA Decision
Stage 6 - Implement	17 April 2025	Airspace Implemented
Stage 7 – Post Implementation Review	April 2026	Assessment of the effectiveness of the airspace

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Consultation Documentation

All documentation related to this ACP can be found on the CAA's Airspace Change Portal [Airspacechange.caa.co.uk](https://airspacechange.caa.co.uk)

- ACP-2023-022 Consultation Document
- Sets out all the relevant information for the proposal
- Includes Easy Read guide at Annex B

Also:

ACP-2023-022 Consultation Strategy
 ACP-2023-022 Full Options Appraisal

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Consultation 11 June to 2 August 2024

- Feedback is invited on the airspace design presented – in particular, the level at which the cylinder is split (proposed FL 105)
- Including suggestions for mitigating factors that could be employed to minimise impact
- Feedback form available via Citizen Space

<https://consultations.airspacechange.co.uk/mod/acp-2023-022-consult>



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Frequently Asked Questions



It is anticipated that when Protector enters service, the airspace would be activated up to 3 times per week, Monday - Friday only. Actual flying by Protector into RAF Marham would be much less frequent



Protector's engine is similar to that of other small light aircraft that already frequently visit RAF Marham, so there isn't expected to be any increase in noise.



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Frequently Asked Questions



Protector is only estimated to spend 6% of its time below 3000ft, the height above which emissions have little or no effect on air quality. In most aspects, Protector's engine produced approximately 40% less emissions in comparison to a large SUV



No new infrastructure will be required, nor is there any expected increase in personnel requirements at RAF Marham.



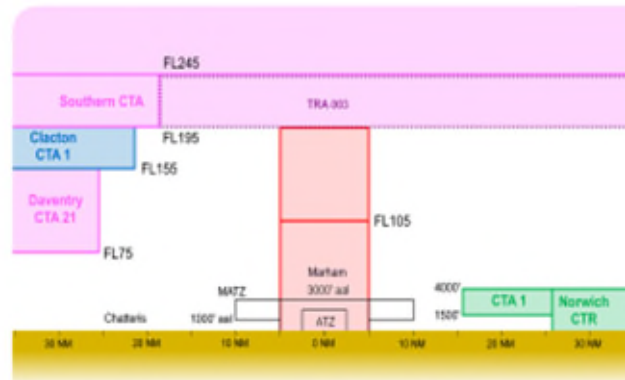


Appendix D - ACP-2023-022: EAAUWG Presentation



Airspace Change Proposals affecting RAF Marham airspace

- ACP-2023-047 – temporary
 - Has been **approved**
 - airspace to be implemented over Marham Jul – Nov 2024 to trial the proposed airspace
- ACP-2023-022 – permanent
 - Expected to be in place from April 2025
 - Airspace similar to that of TDA
 - Currently in **Stage 3 – Consult**
 - Consultation period from 10 June to 2 August



Activation and Utilisation

- For actual diversion in the unlikely event that RAF Waddington is unavailable or unsuitable for landing;
- for practice diversion training (x 10 sorties soon after established, up to 25 sorties per year thereafter);
- By NOTAM at D-1;
- For the duration of Protector sorties; initially core flying hours Mon – Fri, up to 3 times per week;
- Occupy entirety of airspace max 20 mins.



Airspace Management

- Operating Authority - Marham ATC
- A **Special Use Airspace Crossing Service** (SUACS) will be available during TDA hours of activation from Marham ATC
- A **Special Use Airspace Information Service** will be available from Marham ATC during TDA hours of activation and ATC opening hours. London Information will also provide a DAAIS on 124.6MHz
- The MOD will activate the airspace structures **only as and when Protector planned to fly** (at Waddington)
- Some revised LOAs issued by Marham ATC 8 Jan 2024.



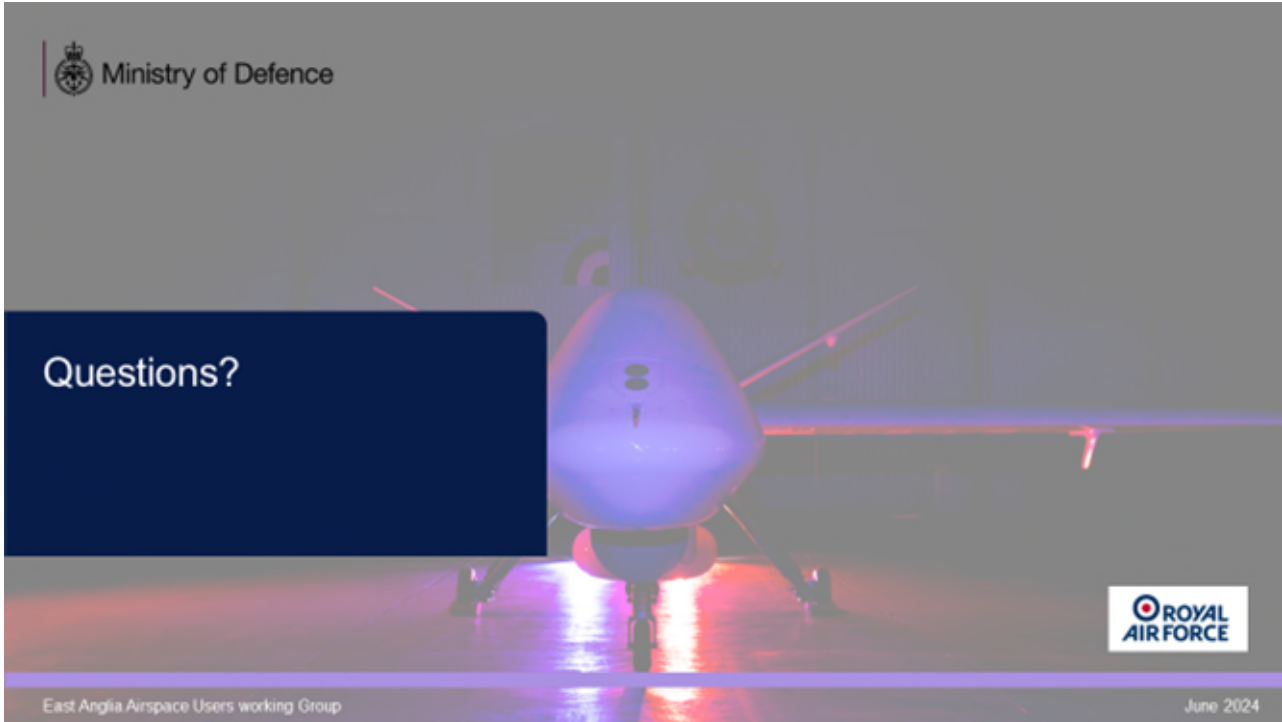
ACP-2023-022 Timeline

Description	Activity	Detail
Consultation starts	10 June 2024	
Consultation ends	2 August 2024	No further feedback will be considered after this date
Stage 4 – Update and Submit	20 September 2024	Final submission to CAA
Stage 5 - Decide	13 January 2025	CAA Decision
Stage 6 - Implement	17 April 2025	Airspace Implemented
Stage 7 – Post Implementation Review	April 2026	Assessment of the effectiveness of the airspace

Consultation

- 10 Jun to 2 Aug
- Feedback invited on the airspace design presented – in particular, the level at which the cylinder is split (proposed FL 105)
- Mitigating factors that could be employed to minimise impact
- Feedback form available via [Citizen Space LINK](#)
- Webinar: **11 July 2024**, 09.00 to 12.00 with presentation on the hour plus opportunity for Q&A
- Full details of consultation will be emailed direct to key stakeholders; all supplementary documentation is published on [CAA Portal](#)

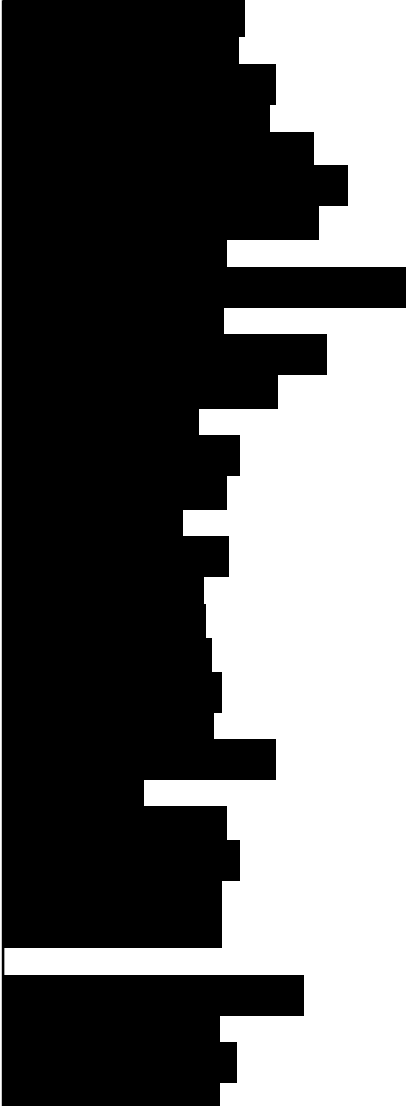




Appendix E - ACP-2023-022: EAAUWG Minutes 13 June 2024

13 Jun 24

MINUTES OF THE EAST ANGLIA AIRSPACE USERS WORKING GROUP HELD AT RAF MARHAM ON 13 Jun 2024

Present		RAFRLO Ltng SO1 Trg Ops SATCO RAF Coningsby Stn Safety Cell SO2 Airspace Plans DRAFRLO RAF Wyton XO 617/207/Aero Club F35 Pilot / StanEval 2 FTS ATCO ATCO CRF Trg Sqn Holbeach Range MRM ASC East Anglia Air Ambulance Norwich Airport Norwich Airport Ludham Airfield Priory Farm, Tibenham SATCO, Norwich Airport ATC Liaison Officer - USAF Norfolk Gliding Club McAully Flying Group GASCo Priory Farm, Tibenham UFly4Fun Flying School, Winglands Change Sponsor RAF Air Capability Drone Trg Fenland Flying School UK Airprox Board Priory Farm, Tibenham	Chair ProjO Dep
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Item 1 & 2 – Welcome, Opening Remarks

1. The chair expressed gratitude and extended a warm welcome to all the participants who took the time to attend the RAUWG. Emphasizing the significance of these forums, the chair underscored their role in fostering a cohesive community of airspace users. By collaborating and sharing insights, the aim is to enhance air safety in the region and minimize the occurrence of Mid-air collisions (MAC). Additionally, the chair acknowledged the bustling nature of East Anglia's airspace and highlighted the projected growth in the RAF and USAF fleet in the coming years. Furthermore, the chair acknowledged the forthcoming challenges associated with the introduction of Protector.

Item 3 – Apologies & Minutes from Last Meeting

2. Apologies were received by email prior to the event, and no issues were raised with the previous minutes.
3. No actions were unresolved from the previous meeting.

Item 4 – Specific Items for Discussion

4. **RAF Marham Ops.** [REDACTED] provided a brief explanation of the ongoing Lightning Force Ops at RAF Marham and how this may impact local airspace users. He explained that the F35B Lightning was maintaining a high ops tempo to maintain readiness for deployment around the world in 2025.
5. An explanation of the roles of the three Marham based Sqns was given, with 207 Sqn highlighted as the Operational Conversion Unit (OCU), training the next generation of front-line pilots who then move on to 617 Sqn for high readiness operations wherever tasked. 809 NAS was also mentioned to have been stood up as the second front-line Sqn.
6. A brief description was given of Marham's departures and recovery patterns; a runway track departure for instrument departure and a slight jink for noise abatement on VFR departures. It was mentioned that Marham predominantly use runways 23/05RH. Rwy 01/19RH is now serviceable however 90% of flying will still be done from 23/05RH.
7. [REDACTED] explained local area ops, F35B will generally operate northeast of Marham in the block FL50-FL190. They will carry out Tac Admin enroute to the D323 complex off the North Norfolk coast, usually with high energy manoeuvres leading to a degradation in ability to see and avoid as well as be seen on RADAR.
8. The important of squawks on other aircraft was mentioned as this allows the jet to pick up any relevant information such as position and levels. It was also mentioned that on departure, whilst within the MATZ, awareness is most limited.
9. A brief overview was given for the RAF Marham Flying Club and their activity, usually weekend flying but occasional mid-week out of airfield hours too. RAF Marham Flying Club operate on Marham VHF frequencies, always monitoring 124.155.

ACTION

10. **RAF Lakenheath/ Mildenhall.** [REDACTED] gave an update to the forum on both RAF Mildenhall and RAF Lakenheath, opening with a broader description of what the US forces do in Europe and Africa as a whole, including their support to NATO, Russian deterrence and enhancing partner capability in the regions. He then explained more specifically the structure of the US forces hosted in the UK, totalling 22,494 visiting US forces. He spoke about the 4 fighter Sqns based at RAF Lakenheath and how they often undertake 60 departures per day, surging to 100 in busier periods, these sometimes make up a majority of the traffic seen over East Anglia and so are the most pertinent for local airspace users to be aware of. 75% of these sorties will be in the D323s.
11. Precautionary Flame Out procedures were explained which have become prevalent again for fast jets due to single engine models. Capt McDaniel then proceeded to explain the Frequency Monitoring Code (Listening Squawk) which civilians can use to dial in. It was raised that Lakenheath RADAR are happy to provide a service to those that want it, and request calls for MATZ penetration.
12. Glider activity was mentioned and discussed within the forum. Lakenheath have been working with local clubs to form a more cohesive and safer environment during good soaring days. As touched upon earlier in the forum, glider pilots were encouraged to communicate with local air traffic controllers if they are able to. A glider activity status is set to moderate/severe meaning higher departures to avoid traffic and increase safety.
13. To conclude, [REDACTED] explained the priorities and output of 353 Special Operations Wing and Airspace utilization in the area. It was mentioned that callsigns with chase will have traffic priority as it is usually a more inexperienced pilot.
14. **UK Airprox Board.** [REDACTED] welcomed all the attendees. Video examples were shown to demonstrate real life airprox scenarios to highlight the importance of situational awareness in the air to prevent them from occurring. [REDACTED] provided a detailed explanation of what an Airprox is, why they matter, the process and where they occur. Focusing on the idea that it is a no blame culture, and it is voluntary for GA but mandatory for commercial and the military to report. [REDACTED] discussed the new trends within airprox statistics which have gone up in the GA community, these include microlights.
15. [REDACTED] raised a discussion about the 2x airprox that occurred with drones that were outside of the legal operation height, above 10,000ft. [REDACTED] responded that everyone should be reporting dangerous drone sightings to aid police in recognising patterns. ATC should also be informed immediately if on frequency to help collect data and time stamp the event. Mr James Fuller raised awareness that Lakenheath have drone detection equipment and are developing this due to drone airproxes in their area as well.
16. **CRF RPAS.** [REDACTED] welcomed everyone and proceeded to explain who the CRF are, where and what they operate and how. Local CRF and ASF units using RPAS are at RAF Marham, STANTA and RAF Honington. [REDACTED] then discussed the different types of drones in use and their capability. They operate under Open A3 and Specific S1 Category. All units hold MAA LEC and have full DH chain and all operators are CAA registered and trained on a MAA accredited course at RAF Honington. All flying is in accordance with MAA RA 1600-1604

and where possible all flying is published on NOTAMs and CADs minimum 48hrs before.

17. **Hexcam** . [REDACTED] delivered a brief to the forum on the BVLOS Sandbox Trial Consultation and the progress on standing up a temporary reserved area to enable BVLOS drone flying in the region. The Norfolk Vanguard and Boreas wind farms are part of a major critical infrastructure project to aid the UK's transition to net-zero whilst meeting future power demands. Mr Cory-Wright then provided an ongoing report on the current situation, Phase 2, whereby BVLOS is used in conjunction with Airspace Observers to aid in deconfliction with crewed aircraft.
18. Phases 3, 4, 5 and 6 were explained to the forum, with phase 6 expected to take place in Q3/Q4 2025. Phase 3 BVLOS will be achieved with the use of ATOM ground stations and PilotAware on the ground, human observers and drone pilot BVLOS. Phase 4 will introduce an active TRA to be activate by NOTAM up to 750ft on Norwich QNH, to operate within the TRA GA pilots must operate electronic conspicuity equipment (EC). Phase 5 will allow all GA traffic to operate within the TRA. Phase 6, the project goal is to allow BVLOS without TRA but instead to operate in integrated airspace which will still be NOTAM'd.
19. The forum took a short break.
20. **UAS CDC**. [REDACTED] delivered a presentation regarding the forthcoming airspace modification proposal for RAF Marham to facilitate operations of the protector RG Mk1 Remotely Piloted Air System (RPAS) in the United Kingdom. To ensure cooperation in the UK, Protector must have a diversion airfield, and Marham has been identified as the most suitable location for this purpose. For protector to recover and depart Marham, it is essential to establish protected airspace which will initially be designated as a temporary danger area before transitioning into a permanent DA. The DA will be activated by NOTAM 24 Hours in advance and RAF Marham will retain danger area crossing services (DACS) throughout the active period. The aim of the DACS is to minimise the time GA pilots will be prevented from using the airspace be it for LARS transit or airfield departures and recoveries within the radius.
21. The dimensions of the proposed TDA/DA will be 5 NM diameter and split vertically into two sections. The first from SFC to FL105, the second from FL 105 to FL195. The reason for splitting the airspace vertically is to reduce the impact of the DA on GA traffic should protector be climbing or descending in the danger area. Procedures and contact information for DA penetration will be published on the NOTAM but is likely to be similar to the extant MATZ crossing services provided by Marham ATC.
22. **Norfolk Gliding Club**. [REDACTED] delivered a comprehensive briefing on the distinctive features of a typical glider. He clarified that while gliders are seldom equipped with transponders, most of them utilize FLARM, which emits a low-power GPS signal to alert nearby FLARMs. The majority of gliders in the UK are equipped with VHF radios, although most glider pilots do not possess an RT license, thereby prohibiting them from legally contacting air traffic service units (ATSU). Only RT qualified pilots will communicate with ATSU when it is essential for ATZ or Class D penetration.

23. During the session, [REDACTED] shared an overview of the gliding statistics in the UK. He highlighted that there are approximately 7,000 pilots who engage in gliding activities annually, operating a fleet of 2,000 gliders. This results in an impressive cross-country distance of 1 - 1.5 million kilometres flown each year. The UK boasts 79 gliding sites, predominantly utilizing winch launch methods. [REDACTED] emphasized the significance of deconfliction when flying over winch sites, citing the example of Wormingford airfield where four F15s flew over at an altitude of 2,000 ft and a speed of 400 Kts while gliders were being winched up to 2,200 ft.
24. The session also delved into the flying characteristics of gliders, accompanied by thermal graphs and an explanation of the techniques employed, such as thermal soaring and wave soaring, to achieve lift. Notable hot spots for thermal activity were identified as Gransden Lodge, Newmarket TP, and Tibenham.
25. **Priory Farm.** [REDACTED] provided an introduction and gave an overview of Priory Farm and the opportunities for private flying in and around the UK. [REDACTED] highlighted that the farm is a small grass strip located 13 nautical miles south-southeast of Norwich. On days when it is open to the public, the farm can witness over 100 movements. Additionally, Priory Farm is introducing new routes, including the Yarmouth heliport.
26. [REDACTED] provided an explanation regarding the challenges that flyers at Priory Farm encounter, particularly in relation to the upcoming construction of the new National Grid in close proximity. He stressed the significance of ensuring safe flying practices and advised caution regarding weather conditions throughout the entire journey, regardless of the distance.
27. **Round the room updates.** Nil.

Item 6 – Closing Remarks.

28. The Chair once more thanked also those for attending and encouraged the ongoing engagement and communication that this type of forum is so beneficial for. He noted that a multitude of change is coming to the region, and that one must understand the implications of the changes so it can be overcome by all local airspace users. He encouraged others to forward invitations to respective colleagues.

Item 7 – Arrangements for Next Meeting.

29. The next meeting of the EAAUWG will be in Jan 25.

[Original Signed]

[REDACTED]

ATCO
East TATCC

Appendix F - ACP-2023-022: Citizen Space Consultation Summary Report

RPAS operations to/from a nominated diversion airfield

<https://consultations.airspacechange.co.uk/mod/acp-2023-022-consult>

This report was created on Monday 02 September 2024 at 15:10

The activity ran from 11/06/2024 to 02/08/2024

Responses to this survey: **13**

1: What is your full name?

Name

There were 12 responses to this part of the question.

2: What is your postcode?

Please provide the one most relevant to your response e.g. home/work/organisation

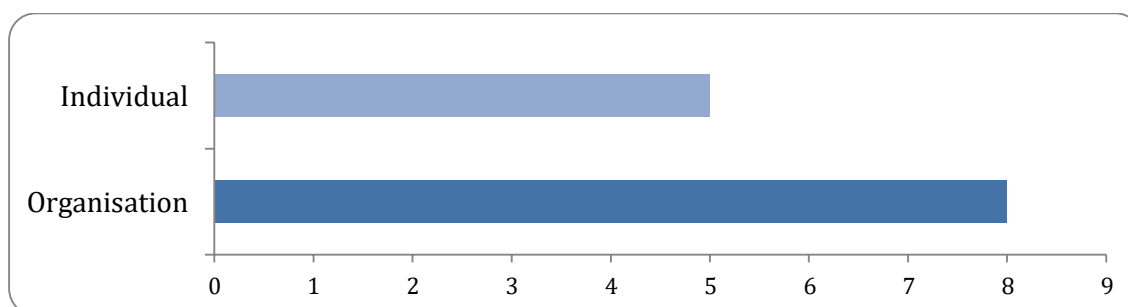
Postcode

There were 13 responses to this part of the question.

3: Are you responding as an individual or do you represent an organisation?

Individual or Organisation

There were 13 responses to this part of the question.



Option	Total	Percent
Individual	5	38.46%
Organisation	8	61.54%
Not Answered	0	0.00%

If you are responding on behalf of an organisation, what is the organisation's name?

There were 8 responses to this part of the question.

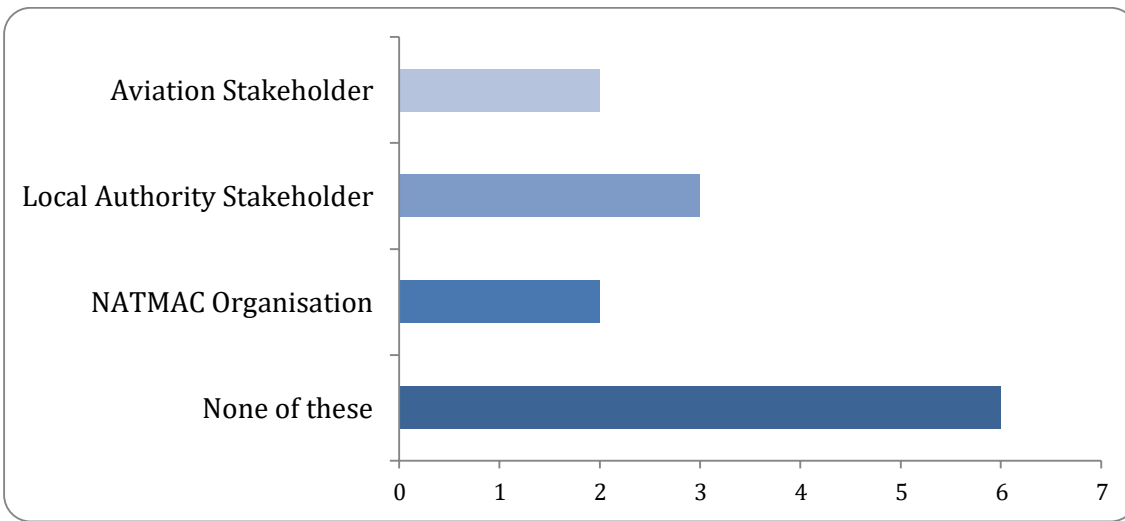
If you are responding on behalf of an organisation, what is your position/title?

There were 8 responses to this part of the question.

4: What best describes your association with this airspace change proposal?

What best describes your association with this airspace change proposal?

There were 13 responses to this part of the question.

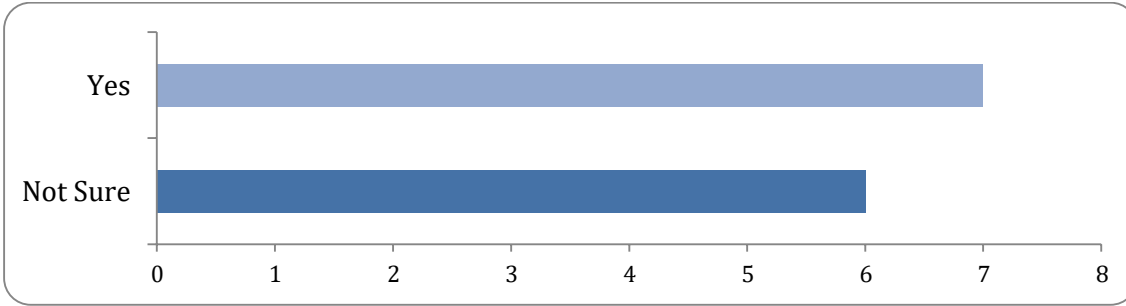


Option	Total	Percent
Aviation Stakeholder	2	15.38%
Local Authority Stakeholder	3	23.08%
NATMAC Organisation	2	15.38%
None of these	6	46.15%
Not Answered	0	0.00%

5: Do you support the proposed Airspace Change Proposal? (ACP-2023-022)

Do you support the proposed ACP?

There were 13 responses to this part of the question.



Option	Total	Percent
Yes	7	53.85%
No	0	0.00%
Not Sure	6	46.15%
Not Answered	0	0.00%

6: If you have any, please provide feedback on the following themes:

Access (entering, exiting or transiting through the airspace)

There were 3 responses to this part of the question.

Proposed level of the internal division of the airspace

There were 3 responses to this part of the question.

Size/dimensions of the airspace proposed

There were 3 responses to this part of the question.

Proposed management & Notification of the active airspace

There were 3 responses to this part of the question.

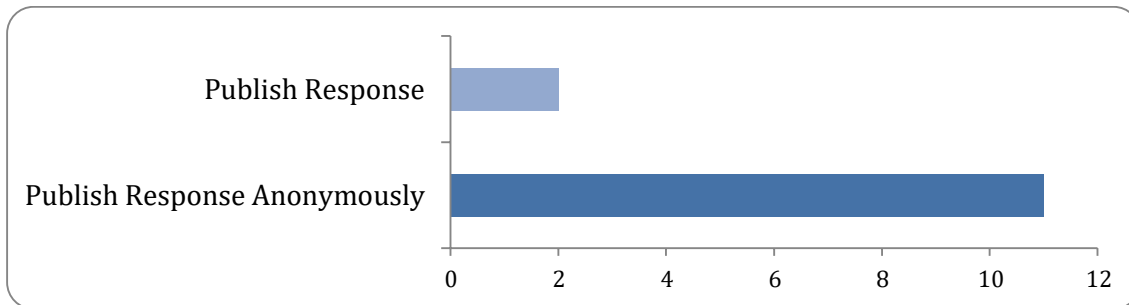
Other

There were 6 responses to this part of the question.

7: In accordance with the UK Civil Aviation Authority’s (CAA) CAP 1616 (Airspace Design), consultation responses will be published on Citizen Space via the CAA Airspace Change Portal. Responses will be subject to moderation by the Change Sponsor. If you wish your response to be published anonymously, please indicate below and your personal details (Name, Address & Position) will be redacted and only be seen by the CAA.

Anonymity

There were 13 responses to this part of the question.



Option	Total	Percent
Publish Response	2	15.38%
Publish Response Anonymously	11	84.62%
Not Answered	0	0.00%

8: If you require a personal response to this survey, please provide an email address:

Email address

There were 7 responses to this part of the question.