

ACP-2019-18

Enabling RPAS and RAF Aerobatic Team Operations Out of RAF Waddington

Stage 3 –Consultation Document Issue 1.0

Notes

This document provides notification of a Ministry of Defence sponsored proposal for changes to the airspace structure in the vicinity of RAF Waddington, Lincolnshire. The issuing of this document constitutes the start of the formal consultation process for stakeholders. The Defence Unmanned Aerial Systems Capability Development Centre (UAS CDC) is managing this process on behalf of the Ministry of Defence.

Roles

Action	Role	Date
Produce	Airspace Change Team UAS CDC	12 Jul 22
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Glossary of Terms

ACD	Airenage Chamas Dramasal
ACP	Airspace Change Proposal
AAL	Above Aerodrome Level
AMSL	Above Mean Sea Level
ANO	Air Navigation Order
AONB	Area of Outstanding Natural Beauty
AQMA	Air Quality Management Area
ARP	Aerodrome Reference Point
ATC	Air Traffic Control
ATZ	Aerodrome Traffic Zone
BVLOS	Beyond Visual Line Of Sight
CAA	Civil Aviation Authority
CAP	Civil Aviation Publication
CTA	Control Area
DAA	Detect and Avoid
DACS	Danger Area Crossing Service
DIO	Defence Infrastructure Organisation
DP	Design Principle
EVLOS	Extended Visual Line of Sight
FL	Flight Level
FTS	Flying Training Squadron
FUA	Flexible Use of Airspace
GCS	Ground Control Station
ISTAR	Intelligence, Surveillance, Target Acquisition and Reconnaissance
MAA	Military Aviation Authority
MATZ	Military Aerodrome Traffic Zone
MEPT	Multi Engine Pilot Training
MOD	Ministry of Defence
MRP	Military Aviation Authority Regulatory Publication
NOTAM	Notice to Airmen
PD	Practice Diversion
QRA	Quick Reaction Alert
RA	Regulatory Article
RAF	Royal Air Force
RAFAT	Royal Air Force Aerobatic Team
RP	Remote Pilot
RPA	Remotely Piloted Aircraft
RPAS	Remotely Piloted Air System
SoN	Statement of Need
SQN	Squadron
TRA UAS	Temporary Reserved Area
	Unmanned/ uncrewed Aircraft System Defence Unmanned Acrial Systems Canability Development Centre
UAS CDC UAV	Defence Unmanned Aerial Systems Capability Development Centre
USAFE	Unmanned/ uncrewed Air Vehicle United States Air Forces in Europe
VLOS	
VLUS	Visual Line of Sight

Introduction

Background

- 0.1 This document forms part of Stage 3 of the Airspace Change Proposal ACP-2019-18 and has been prepared in accordance with Civil Aviation Publication (CAP) 1616.
- 0.2 The aim of this document is to provide Stakeholders with the information that they require in order to fully understand the Ministry of Defence (MOD) proposal to implement segregated airspace in the vicinity of Royal Air Force (RAF) Waddington. The airspace will enable the operation of a large Remotely Piloted Air System (RPAS), Protector RG Mk1, from its main operating base when it comes into service at RAF Waddington from the early-2020s. In addition, owing to the scheduled closure of their current operating base at RAF Scampton, there is also a requirement for the RAF Aerobatic Team (RAFAT) to access airspace over RAF Waddington to conduct flying display activity from early 2023 ¹. The Airspace Change Proposal (ACP) combines the requirements for both of these activities into one.
- 0.3 This document will allow Stakeholders to provide feedback on the airspace design as part of consultation. Potentially impacted stakeholders have been identified through Stages 1 and 2 of this airspace change. Whilst this list is the most up-to-date available, we anticipate that the list will continue to be expanded through consultation.
- 0.4 This document provides context to the proposal, including background to the aerodrome at RAF Waddington, local airspace and why the MOD is seeking to implement the changes to airspace around RAF Waddington. It also outlines the remaining airspace design which has been developed as a result of the Initial and Full Options Appraisals at both Stages 2 and 3 of the ACP. These appraisals can be found on the CAA ACP Portal.
- 0.5 This document uses the most up-to-date and credible data available. For instance all charts have been produced using up-to-date CAA digital aeronautical 1:250 000 or 1:500 000 charts.

Scope.

0.6 The scope of this consultation is limited to the implementation of segregated airspace in order to enable Protector to operate from RAF Waddington to its operating and training areas around the UK and to enable RAFAT to conduct flying display activity at RAF Waddington.

Statement of Need

0.7 There is a requirement for a large Remotely Piloted Air System (RPAS) to operate from RAF Waddington from the mid-2020s. Pursuit of an ACP optimises an approach, in terms of efficiency and safety, for RPAS to operate from and to RAF Waddington. Furthermore, this approach will support the safe integration of the RPAS into the national airspace structures, given the anticipated performance of on-board systems and the surrounding airspace classification. Access to existing training areas around the UK will also be considered as part of the integration into the national airspace structures. There is an emerging requirement for the

¹ RAFAT will be based at RAF Waddington from the end of 2022, but does not intend to use RAF Waddington for flying display activity until suitable airspace protection has been delivered.

RAF Aerobatic Team to conduct display flying activity over RAF Waddington from early 2023 following the Team's relocation from RAF Scampton in late 2022. Integration of this requirement within the Protector ACP is considered the safest operating model.

Section 1 - Context

RAF Waddington and Local Airspace Overview

- 1.1 RAF Waddington in Lincolnshire is the hub of UK Intelligence, Surveillance, Target Acquisition and Reconnaissance (ISTAR) and the main operating base for airborne intelligence aircraft and systems. Its current flying assets include:
 - RC-135W Rivet Joint (51 & 54 Squadrons (Sqns)) a dedicated electronic surveillance aircraft
 - Shadow R1 (14 & 54 Sqns) which contributes to the comprehensive intelligence gathering of the RAF's ISTAR Force.
 - E-3D Sentry AEW1, which was retired from active service in 2021 although it has been continuing an out-of-service training role, which is likely to be complete by Aug 22.
 - Waddington Flying Club a civilian flying club which operates PA28 and Tecnam P2008JC for flying training throughout the week and weekends.

1.2 A map of the local area is at Figure 1



Figure 1- Local Area Airspace

1.3 RAF Waddington has an Aerodrome Traffic Zone (ATZ) and a Military Aerodrome Traffic Zone (MATZ). These are volumes of airspace established at lower levels around an aerodrome for the protection of aerodrome traffic and illustrate that there is already some airspace limitation in the vicinity of RAF Waddington. They will be well-understood terms by aviation stakeholders but need not necessarily be taken into account by non-aviation stakeholders. A cross-section of the airspace around RAF Waddington out to 25 nm is at Figure 2. RAF Waddington is abutted by similar airspace around the aerodromes of RAF Scampton to the north and RAF Cranwell to the south. At the current time RAF Scampton is the home of RAFAT, which uses permanent restricted airspace (known as EG R313) throughout the year for aerobatic display practices². RAF Cranwell is the home No 3 & No 6 Flying Training School (FTS) operating the Embraer Phenom 100 (Multi Engine Pilot Training (MEPT)) aircraft and the 120TP Prefect aircraft respectively. It also has a thriving gliding club. RAF Barkston Heath is the Relief Landing Ground for RAF Cranwell, situated approximately 6 miles to the south east. RAF Coningsby is located to the east of RAF Waddington and is home to two frontline, combat-ready squadrons and is the training station for Typhoon pilots. It is also a RAF Quick Reaction Alert (QRA) station, protecting UK airspace. To the south west of RAF Waddington is RAF Syerston, home to 2 FTS, the RAF Central Gliding School and operates the Viking T Mk 1 glider and Robin DR400 aerotow aircraft.

² RAFAT is due to be relocated to RAF Waddington by end December 2022 following the closure of RAF Scampton 3

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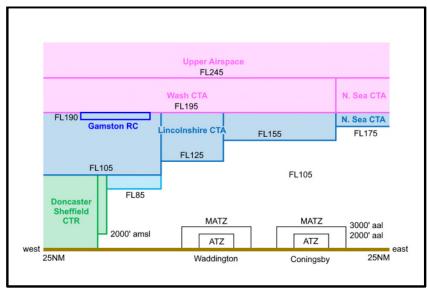


Figure 2 - Cross-section of current local airspace in the vicinity of RAF Waddington (orientation WNW/ESE)

- 1.4 Controlled airspace in the form of the Lincolnshire Control Area (Lincs CTA) is located above and slightly north of RAF Waddington; the base level of Class A airspace overlaps the lateral boundary of Waddington's MATZ at FL125³, lowering to FL85 to the west and rising to FL155 to the east. To the south of the Lincs CTA, the airspace is Class G up to FL195; Class C extends from FL195 upwards south of the Lincs CTA. However, during specified hours⁴ much of the airspace over Lincolnshire is activated as a Temporary Reserved Area (TRA). Although the background classification between FL195 and FL245 is Class C, to avoid operational restrictions, military aircraft may operate autonomously or be in receipt of an air traffic service. MOD and United States Air Forces in Europe (USAFE) aircraft are the predominant users but use of the TRA is not restricted to military users.
- 1.5 Cognisant that the previous paragraph contains a host of technical terms which may not be easily understood by non-aviation stakeholders, it may be useful to explain in simpler terms that the airspace above roughly 12,500 ft overhead and to the north of RAF Waddington is either Class A or C airspace, is heavily regulated and used by many commercial airlines to safely depart from and arrive at various civil airports in the UK as well as to overfly the UK to and from many global destinations. Such airspace is closely managed by air traffic service providers. The airspace in the immediate vicinity of RAF Waddington is Class G airspace and is far less regulated, enabling much sporting and leisure flying to take place with minimal restrictions. The airspace is specifically described in this document to illustrate the complexities of introducing the Protector and RAFAT activities into the airspace in the vicinity of RAF Waddington. Furthermore, by making reference to the TRA which is may be active at certain hours above FL195 in the vicinity of Protector activity, the Change Sponsor is again trying to illustrate the complex nature of safely integrating the Protector asset into UK airspace.

³ A Flight Level (FL) is used to ensure that all aircraft are flying to a common datum to ensure height separation is maintained (1 Flight Level = approximately 100 ft, eg FL 125 = approximately 12,500 ft).

⁴ Mon-Fri 0830 to 1700 UTC Winter; Mon-Fri 0730 to 1700 UTC Summer; Excluding English Public Holidays. TRA may be activated at other times by NOTAM.

- 1.6 The local area is also populated by numerous civil airfields and airstrips supporting some significant leisure flying (general aviation, gliding, paragliding and parachute activity). Busy airfields at Temple Bruer and Wickenby are particularly adjacent to the proposed airspace and a very healthy level of general aviation and sporting/leisure flying activity takes place within the local area.
- 1.7 Over the past 5 years RAF Waddington's annual airfield movements have seen a reduction from 12431 in 2017 to around 9000 in each of the following 4 years. In 2021 the E3D was retired from service. It continued to operate at RAF Waddington in an out-of-service training role until 12 Jul 2022. The Sentinel was retired in Feb 2022. Following this, early indications signal a potential reduction in airfield movements for 2022 in the region of 20% compared with figures for 2018 2021.
- 1.8 About 18% of total movements last year were made up by practice diversions (PDs), the majority by aircraft from RAF Cranwell. These are a mandatory part of the military flying curriculum, ensuring that in the event of requiring to do so, pilots are able to make a successful landing at an aerodrome other than their routine operating base.
- 1.9 The aerodrome operating hours are notified as follows, although it should be noted that RAF Waddington currently operates a flexible flying window and times may differ from them at short notice:
 - 0800 2359 Mon Thu; 0800 1800 Fri

Local Aviation Stakeholders

Military aviation activity in current airspace construct

- 1.10 Whilst military aviation is not wholly predictable, a typical day at RAF Waddington might be as follows. Rivet Joint is likely to depart early to remote operating areas and recover later often carrying out an instrument approach to land. The airframe does not routinely spend large amounts of time in the local area. Shadow may have up to 4 sorties per day, each typically departing to the northeast of Waddington for general handling activity before returning to base, crew change and repeat. Shadow may conduct a couple of radar circuits or visual circuits before landing. Waddington hosts numerous PDs throughout the day, mainly by RAF Cranwell aircraft and averaging 4 9 PDs per day. Waddington's Flying Club operates PA28 and Tecnam P2008JC which conduct sorties throughout the week and weekend, predominantly over the aerodrome and in the local area.
- 1.11 The airspace directly overhead Waddington is used by aircraft from Cranwell and Coningsby to route outbound to the northwest and to position for instrument approaches to their respective aerodromes. General handling sorties are conducted by Cranwell aircraft in the airspace above Waddington FL80 120 and other activity includes airways joins at Trent and the aircraft make regular use of the Gamston and Lichfield Radar Corridors. These corridors can be activated on request at agreed levels to enable military aircraft to cross the busy airspace of the Lincs CTA with minimal impact to the commercial air traffic flow. The corridors are all coordinated through routine ATC means.

Civilian aviation activity in current airspace construct

- 1.12 Whilst the MATZ is not a mandatory avoid for civil pilots, the majority of civil pilots call Waddington ATC when flying in proximity to RAF Waddington and when requiring to transit within 5 nm of RAF Waddington. On an average day, ATC will receive around 15 requests for MATZ and overhead crossings from GA aircraft (both leisure and sporting). This may peak to the high 20s on the busiest flying days, but is estimated to be less than 30 on any given day. Gliding activity is generally limited to the west and south of Waddington and largely 2000 5000 ft. Most requests for MATZ crossings are approved with minimum restrictions to the requested route and altitude. An occasional route alteration may be proposed by ATC to sequence crossers with Waddington traffic patterns either by lateral or vertical means. Outside the ATZ pilots are not duty-bound to accept the re-route and do not always do so, choosing to follow their stated route and keep a good lookout.
- 1.13 The airspace above FL100 is used by gliders on a relatively infrequent basis and by the occasional aircraft leaving the national route structure to position for the Midlands airports. The British Parachute School aircraft at Langar make regular use of the area over the Vale of Belvoir, to the south west of RAF Waddington, up to FL150.

Why Waddington?

1.14 RAF Waddington is the hub of the UK ISTAR capability and the main operating base for airborne intelligence aircraft and systems. It will be the main operating base for Protector RG Mk1, a remotely piloted air system. RAF Waddington will also be the new home of RAFAT with effect end 2022, following the forthcoming sale of RAF Scampton. The aerodrome sits entirely within Class G airspace (uncontrolled airspace), which does not provide adequate segregation or protection respectively for Protector at its in-service date or for RAFAT whilst conducting flying display activity.

Remotely Piloted Air Systems

- 1.15 Remotely Piloted Aircraft are defined as 'any aircraft operating or designed to operate autonomously or to be piloted remotely without a pilot on board⁵. A Remotely Piloted Air System (RPAS) refers to the complete system required to operate a remotely piloted aircraft and usually includes a Ground Control Station (location to operate the aircraft), datalinks to the aircraft and any other associated ground equipment. RPAS can also be referred to as UAS, UAV or 'drones'.
- 1.16 UK military aviation is regulated by the Military Aviation Authority (MAA). Accordingly the Protector programme is subject to the MAA Regulatory Publications (MRP). RA 1600 'Remotely Piloted Air Systems' is a military regulation that categorises RPAS into either the Open, Specified or Certified category. According to aircraft category aircraft can be operating to differing operating procedures. MAA02: Military Aviation Authority Master Glossary outlines the three operating principles of RPAS⁶. They are:
 - **Visual Line of Sight (VLOS).** An operation in which the Remote Pilot maintains direct unaided visual contact with the Remotely Piloted Aircraft.
 - Extended Visual Line of Sight (EVLOS). Operations, either within or beyond the limits
 for VLOS, where the Remote Pilot (RP) is still able to comply with their collision
 avoidance responsibilities, but the requirement for the RP to maintain direct visual
 contact with the RP Aircraft (RPA) is addressed via other methods or procedures. It is
 important to note, however, that collision avoidance is still achieved through 'visual
 observation' (by the RP and / or RPA Observers
 - Beyond Visual Line of Sight (BVLOS). For Remotely Piloted Air Systems; 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.

⁵ CAP 722 para 1.1.2

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⁶ The MAA regulation is in accordance with the principles described in CAP 722

- 1.17 Of further relevance to the operation of Protector in UK airspace is MAA Regulatory Article RA 2320 MAA regulation for operation of military RPAS. The RA states the criteria for BVLOS RPAS operation such that within UK airspace, BVLOS operations should:
 - Either employ an appropriately approved Detect and Avoid (DAA) capability to enable compliance with the Rules of the Air appropriate to the class of airspace,
 - or be flown using a Layered Safety Approach that specifically requires flight in segregated airspace.
- 1.18 When Protector comes into service it will be fitted with a limited DAA capability only, which is not likely to meet the requirements to fly in all classes of airspace. The working assumption is that Protector will be able to fly within Classes A and C airspace without restriction. Since RAF Waddington is located within Class G airspace, some form of airspace segregation is required for its transit through current Class G airspace in order to be able to achieve onward transit using Classes A and C airspace. Such segregation for RPAS is typically satisfied through operating within danger areas and this is the MOD's preferred choice of airspace for this ACP. The Air Navigation Order (ANO), which can be accessed here defines a danger area as:

'a defined portion of airspace which has been notified as such within which activities dangerous to the flight of aircraft may take place or exist at such times as may be notified'



The RPAS Protector RG Mk1 will be operated from RAF Waddington and is due to enter into service in the UK in 2023. Protector has a 79ft wingspan and is 38ft long. It is powered by a single TPE 331-10 turbo-prop engine and will be certified to fly in UK airspace. The aircraft will be operated by fully qualified and instrument-rated RAF pilots.

The image to the left is an artist's impression of Protector superimposed over a London backdrop.

RAFAT

1.19 Following the announcement by the Defence Infrastructure Organisation to sell RAF Scampton, a requirement exists for RAFAT to be able to conduct some flying display activity over RAF Waddington. Several options to adequately satisfy the full range of training activities for the Team are being scoped; RAF Waddington is one of them. The danger area construct over RAF Waddington will provide an adequate level of protection for RAFAT and other airspace users during the flying display activity.



RAFAT, better known as the Red Arrows (pictured to the left), have represented the RAF and the UK since 1965. Widely acknowledged as one of the world's premier display teams, they represent the speed, agility and precision of the RAF, assist in Armed Forces recruitment and promote the best of British. The Team fly the BAE SYSTEMS Hawk TMk1 fast jet trainer.

Section 2 – Summary of Airspace Design Development

Design Principles

2.1 Following feedback from stakeholders, the MOD established a set of Design Principles during Stages 1 and 2 of the ACP. They were used to assess the validity of a set of initial airspace design options and enabled the Change Sponsor to reduce the design options from a comprehensive list of 8 designs to a short list of just 3 at the end of Stage 2. The design principles are in Table 1 below.

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	Table 1 - ACP-2019-18 Design Principles
Priority	Design Principle
	DP(a) Provide a safe environment for airspace users including
1	consideration of the risk to life of those on the ground
	during RAFAT display practices
2	DP(b) Provide access to sufficient area for both training and
2	operational objectives
	DP(c) Where possible and practicable, accommodate the emerging
3	Airspace Modernisation Strategy
	DP(d) Minimise the impact to other airspace users
	DP(e) Endeavour to make the airspace as accessible as possible
4	DP(f) Use Flexible Use of Airspace (FUA) principles to manage the
4	airspace as far as is practicable (Efficiency and Airspace
	Sharing)
5	DP(g) Use standard airspace structure where possible (Conformity,
3	Simplicity and Safety)

Stage 2 Airspace Design Options Summary

2.2 During Stage 2 of the ACP six low level and two medium level airspace design options were presented for stakeholder consideration. They are depicted in Figure 3 - Figure 11 below:

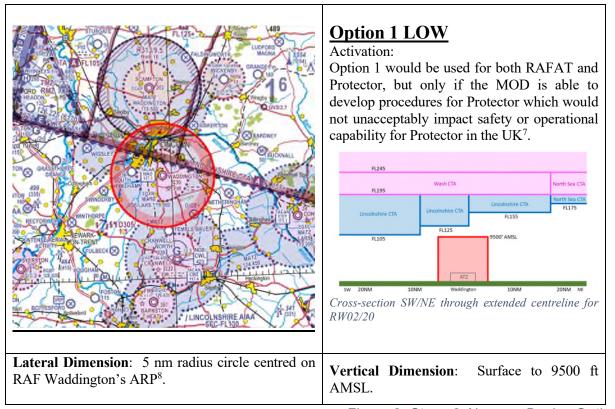


Figure 3- Stage 2 Airspace Design Option 1

⁷ In Mar 22, following continued collaboration with GA-ASI, the manufacturer of Protector, the MOD was advised that the Protector activity could be contained within the airspace depicted in Option 1 LOW.

⁸ RAF Waddington's airfield reference point is the midpoint of RW02/20 (530958N 0003126W)

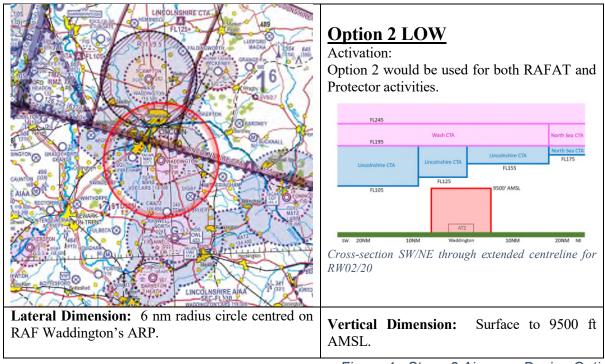


Figure 4 - Stage 2 Airspace Design Option 2



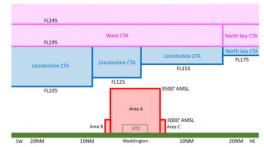
Option 3 LOW

Activation:

Area A would be activated for RAFAT activity.

Areas A, B & C would be activated for Protector activity.

Areas A, B & C would be activated simultaneously when both activities are planned.



Cross-section SW/NE through extended centreline for RW02/20

Lateral Dimension:

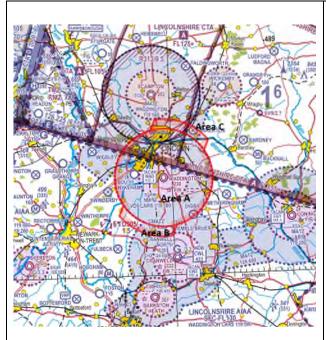
Area A - 5 nm radius circle centred on RAF Waddington's ARP:

Areas B & C - stubs aligned with the runway centreline, extending from boundary of Area A to 6 nm from ARP into RW02/20 approach/departure lanes and 3 nm either side of RW02/20 extended centreline. The ends of the stubs are perpendicular to the runway extended centrelines.

Vertical Dimension:

Area A - Surface to 9500 ft AMSL; Areas B & C - Surface to maximum 3000 ft AMSL.

Figure 5 - Stage 2 Airspace Design Option 3



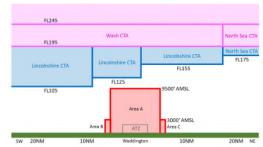
Option 4 LOW

Activation:

Area A would be activated for RAFAT activity.

Areas A, B & C would be activated for Protector activity.

Areas A, B & C would be activated simultaneously when both activities are planned.



Cross-section of SW/NE through extended centreline for RW02/20

Lateral Dimension:

Area A - 5 nm radius circle centred on RAF Waddington's ARP;

Areas B & C - stubs aligned with the runway centreline, extending from boundary of Area A to 6 nm from ARP into RW02/20 approach/departure lanes and 3 nm either side of RW02/20 extended centreline. The ends of the stubs follow a 6 nm arc measured from the ARP.

Vertical Dimension:

Area A - Surface to 9500 ft AMSL; Areas B & C - Surface to maximum 3000 ft AMSL.

Figure 6 - Stage 2 Airspace Design Option 4



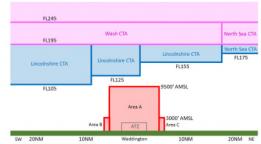
Option 5 LOW

Activation:

Area A would be activated for RAFAT activity.

Areas A, B & C would be activated for Protector activity.

Areas A, B & C would be activated simultaneously when both activities are planned.



Cross-section SW/NE through extended centreline for RW02/20

Lateral Dimension:

Area A - 5 nm radius circle centred on RAF Waddington's ARP;

Areas B & C – areas extending from the boundary of Area A to follow a 6 nm arc measured from the ARP, starting 2.5 nm west of the RW02/20 extended centreline and finishing 4.5 nm east of the RW02/20 extended centreline.

Vertical Dimension:

Area A - Surface to 9500 ft AMSL; Areas B & C - Surface to maximum 3000 ft AMSL.

Figure 7 - Stage 2 Airspace Design Option 5

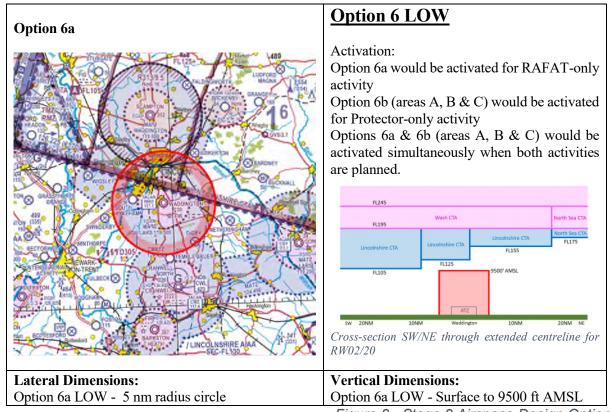


Figure 8 - Stage 2 Airspace Design Option 6a

Option 6 (Continued)

Option 6b



Lateral Dimensions:

Area A is made up of a 5 nm radius circle with segments removed to the west and east of the circle. The western edge runs along a line 2.5 nm west of and parallel to the RW02/20 centreline. The eastern edge runs along a line running 4.5 nm east of and parallel to the RW02/20 centreline.

Areas B & C - areas extending from the 5 nm arc of Area A to follow a 6 nm arc measured from the ARP, starting 2.5 nm west of the RW02/20 extended centreline and finishing 4.5 nm east of the RW02/20 extended centreline.

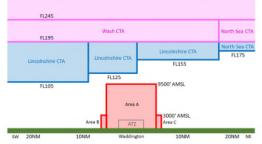
Option 6 LOW (continued)

Activation:

Option 6a would be activated for RAFAT-only activity

Option 6b (areas A, B & C) would be activated for Protector-only activity

Options 6a & 6b (areas A, B & C) would be activated simultaneously when both activities are planned.



Cross-section SW/NE through extended centreline for RW02/20

Vertical Dimensions:

Area A – Surface – 9500 ft AMSL Areas B & C – Surface to maximum 3000 ft AMSL

Figure 9 - Stage 2 Airspace Design Option 6b

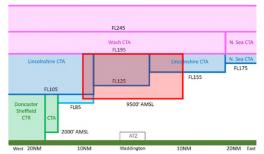


Lateral Dimension: 20 x 10 nm rectangle aligned to and abutting the southern edge of the Lincs CTA.

Option 7 MEDIUM

Activation:

Provided a safety argument can be made with respect to the CAA Safety Buffer Policy, Option 7 would be activated for Protector activity only, to enable Protector to continue climb into classes A and/or C airspace.



Cross-section through a line running parallel to the abutting Lincolnshire CTA

Vertical Dimension: 9500 ft AMSL – FL195

Figure 10 - Stage 2 Airspace Design Option 7

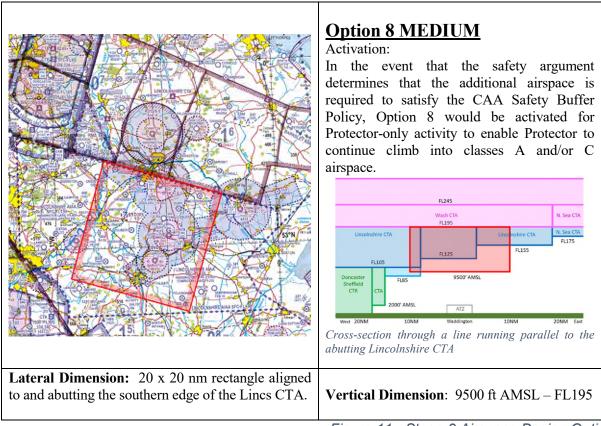


Figure 11 - Stage 2 Airspace Design Option 8

2.3 In response to feedback from stakeholders on these airspace design options and through continued work with Protector's manufacturer, the MOD refined its airspace design and at the end of Stage 2 discarded Options 2-6. Options 1, 7 and 8 were taken through to Stage 3, predicting that some further refinement of Options 7 or 8 might be feasible. This is further covered in Section 3.

Section 3 - Proposed Airspace Design Option

3.1 Since the completion of Stage 2 the MOD has been able to refine Options 7 and 8 into one medium airspace design. This is essentially a reduction in the volume of the Stage 2 Option 8 and takes into account specific feedback from aviation stakeholders in Stage 2 whilst still meeting the operational and training needs of Protector. Current thinking is that Stage 2 Option 7 will not be able to comply with the CAA Safety Buffer Policy⁹ for RPAS operations adjacent to existing controlled airspace. Therefore, Stage 2 Option 7 has been discarded. Option 1 and a refined Option 8 have been combined into one single airspace design for consultation with stakeholders.

The Change Sponsor wishes to stress that this is a one option consultation.

The option for consideration comprises two volumes of vertically-joined airspace.

- 3.2 The airspace proposed consists of one design from each of the following two categories:
- One airspace design for the airspace in the vicinity of RAF Waddington below FL105 (known as the low airspace design (Stage 2 Option 1);
- One airspace design for the airspace in the vicinity of RAF Waddington FL105 FL195 (known as the medium airspace design (refined Stage 2 Option 8).
- 3.3 The single design comprises two volumes of airspace, the lateral boundaries of which overlap and which are vertically joined. These combined volumes of airspace provide appropriate segregated airspace for the Protector and RAFAT activities.

⁹ SARG Policy Statement: Special Use Airspace – Safety Buffer Policy for Airspace Design Purposes dated 22 Aug 2014

3.4 Figure 12 depicts the combined low and medium volumes of airspace in plan and cross-section view.

Combined Low and **Airspace Designs** Activation: Low (Stage 2 Option 1) would be used for both RAFAT and Protector activities. Medium (refined Stage 2 Option 8) would be activated for Protector activity only, to enable Protector to continue climb into Classes A (depicted in blue below) and/or C (depicted in pink) airspace and vice versa. FL125 Combined airspace design cross-section WNW/ESE **Lateral Dimensions:**

Low - 5 nm radius circle centred on RAF Waddington's ARP.

Medium - 18 x 13 nm rectangle aligned to and abutting the southern edge of the Lincs CTA.

Vertical Dimensions:

Low - Surface - FL105 **Medium** – FL105 - FL195

Figure 12 - Combined Low and Medium Airspace Designs

Medium

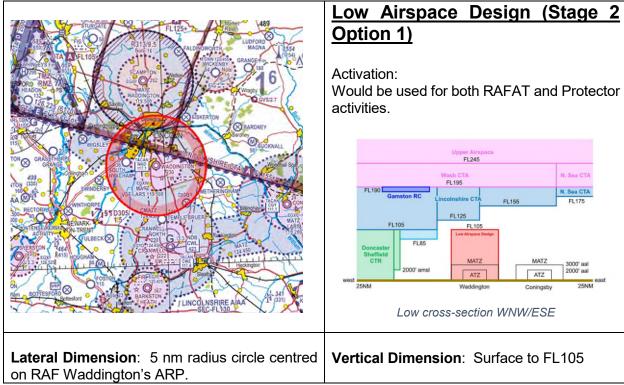


Figure 13 – Low Airspace Design

- **3.5** Low Airspace Design Summary. The low airspace design presented in Figure 13 will be used for both RAFAT and Protector activities. It is a cylinder of 5 nm radius and has vertical dimensions of surface to FL105. The upper level of this design has been amended from 9500 ft AMSL to FL105 following feedback from RAF Cranwell at Stage 2 and with the agreement of RAFAT. It is the only airspace design that meets all of the design principles within the low designs presented at Stage 2.
- 3.6 Whilst the RAFAT requirement for the low airspace design up to FL105 will endure, it is possible that when the full DAA capability is delivered to Protector its activity may only require segregated airspace up to a maximum of 3000 ft above aerodrome level (AAL). This is an emerging concept and the MOD is in discussion with the air vehicle manufacturer to understand the implications for this ACP. In accordance with the MOD's endeavour to minimise the impact on other airspace users, it may be prudent to differentiate between the upper level requirements of the RAFAT and Protector activities, so that a smaller volume of segregated airspace (e.g. only up to 3000 ft AAL) could be activated for Protector-only activity. The Change Sponsor will determine how best to manage this with the CAA. An update will be made as soon as available via the CAA ACP Portal.

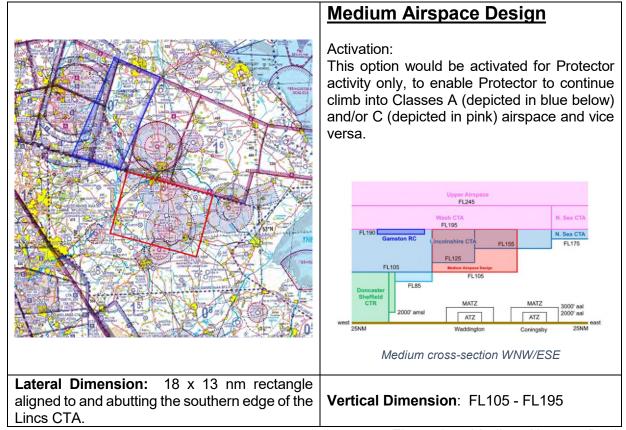


Figure 14 – Medium Airspace Design

- 3.7 **Medium Airspace Design Summary.** The medium airspace design presented in Figure 143.8 will be used by Protector as it climbs into or descends from Classes A and C airspace. RAFAT will not use this airspace. It is a refinement of Option 8 presented in Stage 2 in that it has been slightly reduced in volume its lower level has been altered and it has been shifted laterally slightly. It measures 18 x 13 nm and its vertical dimensions are FL105 FL195. Through continued work with Protector's manufacturer, the MOD has been able to present a volume of airspace that does not inhibit paradropping activity from Langar airfield, which is a significant change following Stage 2 engagement. Additionally, following feedback from RAF Cranwell in Stage 2 the lower level of this design has been amended from 9500 ft AMSL to FL105. Similarly following MOD engagement, the western boundary of the structure has also been shifted 2 nm to the east of its original position to better facilitate aircraft wishing to use the Gamston Radar Corridor at FL190. The Gamston Radar Corridor is shown to the west outlined in blue on Figure 14 3.8. This airspace design meets all of the airspace design principles.
- 3.8 The low and medium designs may be activated separately as follows:
- The low airspace design will always be activated for Protector and RAFAT activity;
- The **medium airspace design** will be activated for Protector activity only; when activated for Protector the low airspace design will be simultaneously activated.

- 3.9 Work is still ongoing regarding the development of a robust argument with respect to the CAA Safety Buffer Policy. If successful, the volume of the medium airspace design might be further reduced. Furthermore, a satisfactory argument must be made for an active TRA to be considered a safe environment for Protector operation and the MOD is working on this argument. The upper limit of FL195 for the medium airspace design is predicated on this argument being able to be made.
- 3.10 Since RAFAT does not require access to the medium airspace design, when the full DAA capability is delivered to Protector the requirement for this airspace to be segregated will no longer exist and the segregated airspace associated with the medium airspace design will be withdrawn. The MOD is looking into the most efficient way to withdraw the medium airspace as soon as it is possible.

Section 4 – Operating Principles

Measures to Minimise the Impact on other Airspace Users

- 4.1 The following measures will be put in place to minimise the impact on other airspace users:
 - 4.1.1 **Type of airspace.** The type of airspace implemented will certainly drive the overall hours of airspace activation. The Change Sponsor intends to implement the required segregation in the form of a danger area, which will provide the most efficient and tactical use of airspace. The MOD will activate the airspace structures only as and when necessary. In other words, only when activity by either RAFAT or Protector is planned.
 - 4.1.2 **Activation Periods.** The proposed airspace will not be permanently active; it will only be activated when RAFAT or Protector flying is due to take place. Procedures will be in place to ensure that the airspace is activated and notified as and when required. This will involve appropriate NOTAM action being taken at least 24 hrs in advance. The danger area airspace would be kept active for the duration of the RAFAT and/or Protector sorties. In the latter case this is required in order to facilitate early recovery or emergency situations.
 - 4.1.3 **Access to Airspace.** To ensure minimum disruption to other airspace users a Danger Area Crossing Service (DACS) will be offered within any implemented airspace. This means that, even if the airspace has been notified as being active, it may be possible for both civil and military aircraft to transit through it under a clearance from Waddington ATC.
 - 4.1.4 **Air Traffic Control**. Waddington ATC will be manned at all times during RAFAT and Protector operations. Confirmation on the current status of the airspace will be available from other appropriate military ATC units, such as 78 Sqn (Swanwick Military), when Waddington ATC is closed.

Utilisation of Airspace

- 4.2 It is difficult to offer an accurate rate of use for the airspace by both RAFAT and Protector at this time, since there are many changing variables. However, the following is offered as a guide and will be updated if any new information becomes available.
- 4.3 **RAFAT** The DIO has presented the real estate at RAF Scampton for sale without any caveats for the enduring RAFAT activity. Therefore, from April 2023 RAFAT may not be able to make use of its current training airspace (EG R313). At this time, the RAF is investigating multiple alternatives to EG R313 for RAFAT training. The ability to use EG R313 while RAF Scampton remains in Crown ownership and following sale is still pending, with confirmation unlikely during the consultation period. As no single alternative to EG R313 is currently apparent, the RAF is considering numerous sites for RAFAT training vignettes. RAF Waddington, as the future home of RAFAT, is an obvious alternate training location but is unlikely to support the full training requirement. The current UK training sites which are being considered are; EG R313, RAF Waddington, RAF Syerston¹⁰, RAF Marham, Air Weapons

¹⁰ The MOD has commenced an ACP for a Temporary Danger Area at Syreston in order to trial its suitability as a training location. See <u>ACP-2022-002</u> for further information.

Range Donna Nook and Air Weapons Range Holbeach. At this time the MOD can offer 2 scenarios for consideration for its activity at RAF Waddington:

- Should EG R313 remain available for RAFAT display activity, the requirement for activity at RAF Waddington could be 4 – 5 lunchtime sessions per week during the winter for corporate visits (late Sep – early Apr).
- If EG R313 were not available for RAFAT display activity, the requirement for activity at RAF Waddington could be 3 - 6 display practices per day (late Sep – early Apr). In this scenario EG R313 would almost certainly be permanently withdrawn.
- 4.4 In both scenarios display practices will normally take place Monday Friday during daylight. There is likely to be a requirement for occasional weekend use during summer (mid May late Sept) for In Season Practice (ISP). This is an activity that is required if RAFAT approaches approximately one week having not displayed and is designed to keep the display sharp. It is probable that with a reduction in airshows that normally keep RAFAT current, this weekend requirement may increase, although it currently tends to normally occur Monday Friday. Occurrence is potentially not more than twice per month (Monday Sunday).
- 4.5 During Stage 2 engagement comment was received regarding safety aspects of the operation of RAFAT over populated areas. A statement from RAFAT/Hawk HQ was produced providing background to the RAFAT training schedule, the options for RAFAT training which are under consideration and a brief description of how safety is assured. The statement is provided at Annex A.
- 4.6 **Protector** Excepting operation commitments, it is anticipated that during the first 6 months of Protector's service in the RAF, the flying tempo will be restricted to one air vehicle at a time during core flying hours Monday Friday. This is likely to occur up to 3 times per week. After that and up to the first 24 months of service, there may be up to 2 air vehicles in the air simultaneously. Some night-flying is expected. As the operation matures it is anticipated that up to 6 flights per week may take place, although much routine training will be managed in a synthetic flying environment, using a bespoke simulator. Clearly it is not possible to predict the quantity of operational flying that will take place in the UK as that will be wholly determined by the prevailing political and security climate. More detail will be provided as it becomes available.
- **4.7 Full Options Appraisal.** The Change Sponsor has produced a Full Options Appraisal which can be found on the CAA ACP Portal and is available for consultees to read should they wish to obtain more technical detail.

Section 5 – Effect of Proposed Airspace Design Option

Effect on Local Communities

- 5.1 It has been concluded in the Full Options Appraisal and Environmental Assessments at Stages 2 and 3 that there will be no change to noise or air pollution for local communities as a result of this airspace change. There would be no increase in the volume of commercial or general air traffic, neither would new airspace cause significant changes to the current tracks taken by transiting aircraft.
- 5.2 The Full Options Appraisal can be found on the <u>CAA ACP Portal</u>.

Effect on Aviation Stakeholders

- 5.3 It is estimated that there will be an effect on the local flying communities, albeit mitigated by the provision of air traffic services to both civil and military airspace users in general and by the provision of a DACS in particular. The use of the danger area construct with the ability to only activate when the airspace is required, minimises the effect further. It is estimated that the requirement to reroute aircraft will be most noticeable when the low airspace design is active for RAFAT activity. However, it should be noted that this is likely to be mainly during the winter months for their corporate display activity. Whilst the airspace will remain active for the whole sortie duration for Protector, once Protector is operating away from the aerodrome, aircraft requiring to cross over the top of Waddington should be able to do so under the provision of a DACS.
- Owing to the refinements in the medium airspace design, Langar para-dropping will be able to carry out its activity unhindered; similarly, following work with Protector's manufacturer, the MOD has been able to offer a low airspace design which enables the aircraft operators from Temple Bruar to continue in accordance with current departure and arrival profiles without restriction. Procedures for the National Grid pipeline inspection and air ambulance helicopters are already in place and will continue to be coordinated tactically by Waddington ATC.
- 5.5 Protector is unlikely to occupy the medium airspace design option other than to climb or descend through it whilst transiting to and from its operating areas. Therefore, the opportunity for military and civil aircraft to access it for training purposes is unlikely to be changed from the current time. Equally, aircraft wishing to join or leave the national route structure are likely to be able to continue to do so even when the airspace is active by making use of the DACS.
- 5.6 Gliders, and particularly those without radio, are likely to be the most affected stakeholder group; the MOD is aware of this and will continue a dialogue.
- 5.7 The MOD is also aware that the future of EG R313 will play a key part in the way in which this ACP affects aviation stakeholders. At this time, the RAF is investigating multiple alternatives to EG R313 for RAFAT training. The ability to use EG R313 while RAF Scampton remains in Crown ownership and following its sale is still pending, with confirmation unlikely during the consultation period. As no single alternative to EG R313 is currently apparent, the RAF is considering numerous sites for RAFAT training vignettes. RAF Waddington, as the future home of RAFAT, is an obvious alternate training location but is unlikely to support the full training requirement. The current UK training sites which are being considered are; EG R313, RAF Waddington, RAF Syerston, RAF Marham, Air Weapons Range Donna Nook and Air

Weapons Range Holbeach¹¹. Any further updates will be provided during the consultation period if they become available via the ACP portal and the Frequently Asked Questions (FAQ) pages.

Environmental Effects

- 5.8 The ACP sponsor is the MOD and is, therefore, only responsible for assessing the consequential environmental impact of MOD's operations on civil air traffic. For this reason the Change Sponsor has not considered the environmental impact of the Protector and RAFAT activities specifically in conjunction with this ACP. The full environmental assessment can be found on the CAA ACP Portal¹²
- 5.9 In summary, it has been assessed that the airspace design proposed will have a negligible impact on the following:
 - 5.9.1 **Noise** The Change Sponsor has assessed that the proposed change will not result in an increase in the number of aircraft operating in the local area, nor will the aircraft types be altered. Therefore, the same amount and type of noise is likely to impact the local population as is currently the case. Since the change is likely to impact less than 30 aircraft on the busiest flying day and considering the mitigations put in place (e.g. NOTAM, DACS), the overall impact of the proposed change on noise is assessed to be negligible.
 - 5.9.2 **CO**₂ **Emissions and Fuel Burn** The Change Sponsor has considered the impact of the proposed airspace on CO₂ emissions and fuel burn from a qualitative point of view and suggests that the proposed change will not result in an increase in the number of aircraft operating in the local area, nor will the aircraft types be altered. Therefore, whilst there might be a small number of aircraft that do not take advantage of the DACS in order to get a direct routing, the impact on CO₂ emissions and fuel burn is assessed to be very low.
 - 5.9.3 **Air Quality** Air quality must be considered by change sponsors if the proposed airspace change is likely to:

Bring about a change in aviation emissions (by volume or location) below 1000 ft, and

The location of the emissions is within or adjacent to an identified Air Quality Management Area (AQMA).

The MOD has identified two locally situated AQMAs in the heart of the city of Lincoln, which are contained within the low airspace design. However, the fact that they are located within the lateral boundary of the airspace in question means that any civil air traffic affected by the airspace change will not be rerouting adjacent to the AQMAs. In addition regulation¹³ requires that in general, except when necessary for take-off or landing, an aircraft should not be below 1000 ft over a built-up area and so should not be crossing

¹¹ There are likely to be restrictions on the simultaneous use of any of these locations if they are considered acceptable for RAFAT training activity; it is likely that only one location will be activated for RAFAT operations at any time.

¹² The environmental assessment can be found at Annex A of the Options Appraisal (Phase II – Full) at this link

¹³ Rules of the Air, Section 3 para 5(c) Microsoft Word - uksi 20070734 en.doc (legislation.gov.uk)

over Lincoln's AQMAs below 1000 ft. For this reason the MOD feels that local air quality will not be impacted.

5.9.4 Tranquility and Biodiversity - The proposed airspace does not sit above any Areas of Outstanding Natural Beauty (AONB) or National Parks. The Lincolnshire Wolds AONB is located well to the north east of RAF Waddington and the airspace associated with this ACP. The area of interest on the CAA ACP portal is denoted as a 30 nm radius of RAF Waddington since the Change Sponsor felt that many stakeholders within that area (particularly aviation stakeholders) would take an interest in the proposed change. During the airspace design development in Stage 2 of this ACP the area of those impacted on the ground was able to be better defined and the Change Sponsor was able to confirm that the Lincolnshire Wolds AONB will not be overflown by either Protector or RAFAT. No National Parks will be overflown either. No specific sensitive or locally identified "tranquil" areas have been identified by stakeholders, but the MOD will be receptive to any such information being presented during the Stage 3 consultation. The Change Sponsor is committed to continue to work with RAF Waddington where possible in a neighbourly way to minimise overflight of sensitive areas. This is particularly relevant with regard to the RAFAT activity. Identified areas are specified within the RAF Waddington Defence Aerodrome Manual and the MOD has taken the initiative in detailing such sensitive areas to RAFAT.

Section 6 - Consultation Process

Consultation Duration

- 6.1 The MOD is conducting a full 3-month consultation commencing on **Wednesday 7 Sep 2022** and finishing on **Wednesday 30 Nov 2022**. This is to ensure all stakeholders who wish to provide feedback have sufficient time to do so.
- 6.2 Additionally physical events will be held during the consultation window. The sessions will offer an informal opportunity for all interested parties to find out more about the proposed airspace change and to leave formal feedback if required. Hard copy feedback forms will be made available at the drop-in events to assist respondents to submit online feedback. The Change Sponsor will upload any completed hard copies to the CAA ACP Portal.
- 6.3 The following ACP drop-in sessions are due to be held at:
 - Lincoln Guildhall and Stonebow, Saltergate, Lincoln, LN2 1DH on Wednesday 21 Sep 2022. Please note that there is limited access for wheelchair users in this venue. City centre parking is available (nearest is Central Car Park, 5 minutes from venue)
 - Redwood Drive Community Centre, Redwood Drive, Waddington, Lincs, LN5 9BY on Wednesday 28 Sep 2022. Parking is available at the venue and it has disabled access.
- 6.4 The days will run from 10.30am 6.00pm in both locations. Booking is not required and the events will follow a free-flow format; no formal briefings are planned, but if you have specific questions for the Change Sponsor, you are invited to send them in advance to UASCDC-ACP@ginetig.com.

What is being asked?

- 6.5 The purpose of this consultation period is to provide an opportunity for all stakeholders 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 CAA.
- 6.6 The key themes that the Change Sponsor is seeking to answer through consultation include, but is not limited to, the following:
 - Your feedback on the airspace design presented to achieve appropriate airspace for the Protector and RAFAT activities
 - The perceived effect of this proposal (positive or negative)
 - Key concerns for stakeholders
 - Mitigating factors that could be employed to minimise impact

How to respond

- 6.7 In accordance with CAP 1616 this consultation will be undertaken through electronic communication, and it is therefore requested that stakeholders wishing to provide feedback do so through the Citizen Space online portal.
- 6.8 The link to the Citizen Space portal can be found here. A response form, along with consultation documentation can be found on Citizen Space. Additionally, all supplementary documentation so far can be found on the CAA ACP Portal
- 6.9 A paper copy of this Consultation Document including the Feedback Form will be available on request at the address below. If stakeholders are unable to respond electronically written responses to the hard copy form at Annex B may be submitted to the address below, including a stamped envelope if a reply is required:

The Airspace Change Manager Room 1.35, Building 456 MOD Boscombe Down Salisbury Wiltshire SP4 0JF

The deadline for receipt of responses is 30 Nov 2022.

6.10 All written responses will be subsequently uploaded to the CAA ACP Portal.

Next Steps

- 6.11 Consultation responses will be collated and assessed throughout the consultation period. Once the consultation period has closed the Change Sponsor will analyse and categorise all responses received and a consultation report published articulating the categorisation process, articulate issues raised and how they have been resolved. Finally, it will confirm the final option to be submitted to the CAA or what additional amendments are to be made to the chosen design as a result of consultation feedback.
- 6.12 The Change Sponsor will then upload the document to the CAA ACP Portal once the CAA has confirmed that no further consultation is required.

6.13 The Change Sponsor will continue the ACP process in line with the timeline in Table 2 below.

		Table 2 - ACP-2019-18 Timeline
Date	Activity	Detail
2 Dec 2022	Stage 3D – Collate & Review	Feedback document uploaded to the ACP online portal
20 Mar 2023	Stage 4 – Update and Submit	Upload to the ACP online portal
31 Jul 2023	Stage 5 ACP Decision	Upload to the ACP online portal
30 Nov 2023	Stage 6 – Airspace Implementation	
TBD	Stage 7 – Post-implementation review	Usually commenced 12 months after implementation

6.14 CAP 1616 requires change sponsors to make it clear to stakeholders the extent to which the proposed airspace change, once implemented, is reversible if it does not meet the objectives it is designed to achieve. The Change Sponsor will formally assess the effectiveness and usage of any implemented airspace at the post-implementation review at Stage 7. If the MOD finds that for any reason the airspace change does not offer the opportunity to meet the objectives it was designed to achieve or if for any reason the airspace implemented is no longer required, the MOD will seek to reverse the airspace change. That said, there may be an interim solution as discussed in Section 3 (para 3.10) regarding the anticipated arrival of the DAA capability for Protector.

Annex A

RAFAT ACP IMPACT STATEMENT

Background.

The Royal Air Force Aerobatic Team, officially known as RAFAT but more commonly referred to as The Red Arrows, perform high energy, highly dynamic low-level aerobatics in formations of up to 9 aircraft. Team training in the UK typically takes place from late September to late March using protected airspace over the Team's home-base at RAF Scampton. This airspace is 5nm radius up to 9300ft AGL and is known as EG R313. While training in the UK, there are normally 6 x 30-minute daily training slots (Monday-Friday) to allow 3 x slots for the main section and 3 x slots for the Synchro Pair. Typically, in early March, the Team are able to put the different formation elements together and start their 9-ship training, with a requirement for only 3 x 30-minute daily training slots. The Team then depart the UK for warmer climes and perfect their display routine abroad, typically in Greece and/or Cyprus. Following the Team's return to the UK in mid-late May, the display season typically provides the currency the Team need to keep their routine honed and consequently, practice display flying is infrequent during the summer months.

Airspace.

Having protected airspace is essential for the safety of the Team pilots and other airspace users. When display flying, the Team generally fly at 360kts, from 100ft AGL up to approximately 8000ft AGL if the weather allows a vertical routine. This makes reaction times slow, and it can be cumbersome to reactively manoeuvre the formation. As all pilots take references from the Team leader, there are very few pairs of eyes looking out for other traffic and the Team relies on a radar service for early warning of intruders. Following the decision to sell RAF Scampton, the Team will relocate to RAF Waddington in late 2022. While the Team plan to continue to focus almost entirely on the use of EG R313 for its training requirements, occasional use of RAF Waddington has been identified as best practice. This scenario is discussed in option 1 below. A more recent development has required further analysis of all future RAFAT training and this is discussed in option 2 below.

Option 1 (preferred). Occasional 30-minute practice slots over RAF Waddington are being considered to allow the Team to bed-in at their new home-base. This would allow the Team's important corporate visit and PR programme to continue without the complications of having to bus people to/from Scampton. Supervision of the Team would also be better served at their home-base and there are many other good reasons for considering this option. It must be stressed that this preferred option will only see infrequent RAFAT flying over RAF Waddington utilising protected airspace proposed under this ACP. Such activity will be limited to the minimum required and will be almost completely restricted to the winter training months before the Team deploy abroad in late March/early April each year. Such limited training will also provide vital information about the suitability of the site, should option 2 below be required in the longer-term.

Option 2. A recent development now threatens the future of EG R313 beyond April 2023, and it is conceivable that EG R313 will be removed at some point at, or after this date. Should this occur, the Team will be forced to enact a contingency plan that has been developed to ensure they can continue training. This would potentially see greater use of RAF Waddington and the protected airspace being proposed by this ACP. To ensure the site is suitable for such activity, option 1 will provide invaluable test and evaluation data as it is not yet known just how suitable the site will be. It must be stressed that if option 2 is used, EG R313 will be permanently removed.

Conclusion. The Team's preference is to retain the current status quo, with a near 100% focus on the continued use of EG R313, with occasional, short duration display slots overhead RAF Waddington. However, challenges surrounding the Team's move to RAF Waddington and the recent development of a threat to the very future of EG R313 itself has led to a requirement to look at using alternative airspace. Without protected airspace, the risk of mid-air collision would be unacceptably high, and the RAF has a duty of care to mitigate risks and create an operating environment that is safe for all users. Through flexible use of airspace and the hope that EG R313 can continue to be used indefinitely, it is considered highly likely that any impact to other airspace users while RAFAT operate over RAF Waddington will be very limited. Should EG R313 become unusable, RAF Waddington may be used as one of a number of MOD sites used for Team training but in this situation, EG R313 will be permanently removed.

SAFETY ASSURANCE

Background. RAFAT display activity is governed by both military and civil regulations: Military Aviation Authority Regulatory Article 2335 (MAA RA 2335) and Civil Air Authority Civilian Air Publication 403 (CAP403). Whilst the applicability of the regulations can differ for some display activity (RA 2335 over MOD Property, CAP 403 over Non-MOD Property) the most restrictive of the regulations will be applied.

Assurance Activity. Display activity, including practice displays, will only be conducted within the bounds of an (MAA or CAA as required) approved display area and remains subject to the same rigorous levels of supervision, coordination, and control, of a full public display. The approval of a display area and profile considers the proximity of congested areas and the risk to 3rd parties. In addition, each practice is subject to authorisation and supervision by the Flying Display Supervisor who holds an accredited Flying Display Director qualification. All display activity overhead RAF Waddington will be monitored by Air Traffic Control and the Flying Display Supervisor who maintains direct radio communications to the participating aircraft. All displays (including practice) are video recorded to support rigorous debrief. The first and highest priority of any debrief is always any safety elements.

Conclusion. RAFAT display flying, as with all military flying, is risk managed to levels that are 'As Low as Reasonably Practicable' and 'Tolerable'. Any activity that does not meet these criteria shall be ceased immediately until appropriate mitigation can be applied to assure continued safe conduct.

Annex B

Consultation Feedback Form

The following is the print copy of the online Consultation Feedback Form that will be distributed to stakeholders on request.

Enabling RPAS and RAF Aerobatic Team Operations Out of RAF Waddington (ACP-2019-18)

Overview

The aim of this consultation is to seek stakeholder views on the introduction of a change in designation of airspace in the vicinity of RAF Waddington.

There is a requirement for a large Remotely Piloted Air System (RPAS) to operate from RAF Waddington from the mid-2020s. Airspace change is necessary, in terms of efficiency and safety, for RPAS to operate from and to RAF Waddington, supporting integration of the RPAS into the national airspace structures. There is also a requirement for the RAF Aerobatic Team to conduct display flying activity over RAF Waddington from early 2023 following the Team's relocation from RAF Scampton in late 2022.

The purpose of this consultation is for all stakeholders to respond effectively to the information provided. The questionnaire will assist in gathering and considering opinions and information from relevant stakeholders regarding the potential impact of this ACP.

The methodology of this consultation is summarised in the Consultation Strategy, which can be read in conjunction with the Consultation Document and the Full Options Appraisal, which assesses the costs, benefits, and potential environmental impacts of the airspace change.

The consultation period is from 7 Sep 2022 to 30 Nov 2022: Once consultation has ended, all feedback will be considered for the final design proposal. The final design proposal may evolve from that described in the Consultation Document, subject to stakeholder input.

1.	What is your name? (Required)
2.	What is your email address? If you enter your email address you will receive an acknowledgement email
3.	Please enter your postcode (most relevant to your response e.g. home / work / organisation etc). (Required)
	, and provide the second of th
4.	Are you responding as an individual or do you represent an organisation? (Please select one)
	Individual
	Organisation
5.	If you are responding on behalf of an organisation, what is the organisation's name?
	B-1

B-1 OFFICIAL

6.	If you	are responding on behalf of an organisation, what is your position/title?		
7.	 What best describes your association with this airspace change proposal? Please select one. (Required) 			
		Aviation Stakeholder		
		Local Authority Stakeholder		
		NATMAC Organisation		
		None of the above		
8. Do you support the proposed Airspace Change Proposal?				
		Yes		
		No		
		Unsure		
9. Please rank your response to the combined airspace design (combined low and med airspace designs) as presented in the Consultation Document. (Please select only one)				
		Strongly Support		
		Support		
		Neutral		
		Object		
		Strongly Object		
10.		rank your response to the low airspace design (Stage 2 Option 1) as presented in nsultation Document. (Please select only one)		
		Strongly Support		
		Support		
		Neutral		
		Object		
		Strongly Object		

11.	Please rank your response to the medium airspace design (refined Stage 2 Option 8) as presented in the Consultation Document. (Please select only one)
	Strongly Support
	Support
	Neutral Neutral
	Object
	Strongly Object
12.	If you support this proposal, please provide any alterations that would further improve it for you?
13.	If you oppose this proposal, please explain why?
14.	Whilst ensuring that essential military activity can be achieved, the MOD is keen to reduce the impact of its operations on other airspace users. Can you suggest any mitigation or alterations that would resolve your opposition whilst achieving this?

Are there any other general considerations that you would like the MOD to consider in relation to this Airspace Change Proposal?	
In accordance with the UK Civil Aviation Authority's CAP 1616 (Airspace Design), consultation responses will be published on Citizen Space via the Airspace Change Portal. Responses will be subject to moderation by the Civil Aviation Authority (CAA). 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. Please select only one (Required)	
Publish Response	
Publish Response Anonymously	
	In accordance with the UK Civil Aviation Authority's CAP 1616 (Airspace Design), consultation responses will be published on Citizen Space via the Airspace Change Portal. Responses will be subject to moderation by the Civil Aviation Authority (CAA). 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. Please select only one (Required) Publish Response