



Ministry
of Defence

Headquarters Air Command

Room 1W27, Spitfire Block
Royal Air Force
HIGH WYCOMBE
Buckinghamshire
HP14 4UE

23 September 2019

AIRSPACE CHANGE PROPOSAL – ACP-2019-18

Introduction

The Ministry of Defence (MOD) is in the process of acquiring a large Remotely Piloted Air System (RPAS), Protector RG Mk1, which will be based at RAF Waddington from the early-2020s.



The aircraft has a 79ft wingspan and is 38ft in length. 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. It is anticipated that the aircraft will be able to fly in the majority of UK airspace without restriction. For the remaining airspace, the MOD is working towards on-board technical solutions that may not require changes to airspace. However, it is possible that this will not be achievable during the first 2 years of Protector's operation.

Airspace Change Proposal

To ensure all options are fully explored, the MOD is also considering whether any additional airspace requirements will be necessary for the aircraft's initial integration into UK airspace. In anticipation, the MOD has initiated an Airspace Change Proposal (ACP) to ensure it has the ability to safely operate Protector in accordance with all UK policy and legislation for RPAS operations.

Changes to UK airspace are legally required to follow the process laid down in the Civil Aviation Publication (CAP) 1616. Details of the process are available online¹. Following this process ensures a fair and transparent flow of information between the Change Sponsor and any affected stakeholders. It also ensures that changes are not arbitrarily applied without full engagement and formal consultation. The CAA, as an impartial regulator, will hold Change Sponsors to account and ensure that CAP1616 is followed correctly as part of its decision-making responsibility.

¹ <https://publicapps.caa.co.uk/docs/33/CAP1616E2interactive.pdf>

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The CAP1616 process comprises 7 stages. The stages are each considered by the CAA separately and sequentially. The process is not solution-driven and each stage informs the next. In this particular instance, the requirement is to fly a large RPAS (i.e. Protector) in all classifications of UK airspace. This has been presented to the CAA at Step 1a of Stage 1 of the ACP process and the CAA has agreed that an airspace change is an appropriate means by which to achieve the MOD's requirement. Details of this step can be found on the CAA's online airspace change portal². The MOD will follow the next steps of CAP1616 to develop options which will help to deliver the most appropriate solution and address the requirement.

Stage 1 Step 1b – Design Principles

The generation of options for any new airspace or procedures first requires airspace design principles to be developed. The Design Principle stage lies within the first stage of the CAP1616 process. The MOD is keen to engage with Stakeholders and is asking for your feedback.

At this early stage the MOD is hoping to restrict any potential airspace changes to airspace within the vicinity of Protector's operating base. For this reason the MOD has selected its stakeholders from an area within a radius approximately 30 miles of RAF Waddington.

The MOD has compiled a set of draft design principles, which are presented here for your comment. When finalised, these design principles will be utilised to inform the development and design of any airspace change options. The MOD would like to understand which elements of the airspace design principles you, as another airspace user, deem important and would like to be considered.

You, as a stakeholder are now invited to consider the design principles. The list below is not exhaustive, but you may like to comment on the following:

- Are there any other design principles you would like the MOD to consider?
- Would you like the MOD to discount any of its draft design principles?
- Should the MOD prioritise some design principles ahead of others?
- Do you require / would you like any more detail to be included in the design principles?

The MOD sees principles a and b as its priorities as:

- Safety is paramount and underpins all airspace change;
- Access to adequate airspace is key to achieve training and operational objectives for Protector.

Any additional detail and reasoning behind your feedback is encouraged.

² <https://airspacechange.caa.co.uk/PublicProposalArea?PID=142>

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The MOD's draft design principles, as a basis for engagement, are below.

The design should:

a	Provide a safe environment for airspace users
b	Provide access to sufficient area for both training and operational objectives
c	Be in accordance with current airspace regulation
d	Where possible and practicable, accommodate the emerging Airspace Modernisation Strategy
e	Minimise the impact to other airspace users, both in activation and volume of airspace required
f	Endeavour to make the airspace as accessible as possible
g	Use Flexible Use of Airspace (FUA) principles ³ to manage the airspace as far as is practicable (Efficiency and Airspace Sharing)
h	Use standard airspace structure where possible (Conformity, Simplicity and Safety)

How to Provide Feedback

All the details of this airspace change proposal are available on the CAA's Airspace Change Portal. The ACP identification number is ACP-2019-18. Feedback on the proposed change and what is important to you can be left at any point of the process on the portal at:

<https://airspacechange.caa.co.uk/PublicProposalArea?pID=142>

Alternatively feedback can be sent to:

The **Airspace Change Manager** for this airspace change at UASCDC-ACP@qinetiq.com

Defence UAS Capability Development Centre
Building 90
MOD Boscombe Down
Salisbury
Wiltshire
SP4 0JF

Please advise if you require further engagement and if so, your preferred point of contact.

Responses regarding the Draft Design Principles are required by 21 Oct 2019.

³ https://www.skybrary.aero/index.php/Flexible_Use_of_Airspace