

# ACP-2019-18 Frequently Asked Questions

Provided below is a summary of responses to anticipated and most recurring queries raised during the consultation for ACP-2019-18 (Enabling RPAS and RAF Aerobatic Team Operations Out of RAF Waddington). This is a living document and will develop in line with emerging subject matter.

## 1. Why is the airspace being proposed around RAF Waddington when the MOD already has a large number of Military Aerodrome Traffic Zones in close proximity and a number of Danger Areas in the vicinity?

RAF Waddington is home to the UK MOD ISTAR fleet and will be the main operating base for Protector RG Mk1, a remotely piloted air system, when it comes into service in 2023. RAF Waddington will also be the new home of RAFAT with effect end 2022, following the forthcoming sale of RAF Scampton. RAF Waddington 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. Protector will make use of many of the extant danger areas around the UK for its training activities, but requires the airspace proposed in this ACP to be able to operate specifically from RAF Waddington. *(Please see page 5 of the Consultation Document to read more information on the regulatory requirements for the operation of RPAS in the UK.)*

## 2. Why is segregated airspace required as opposed to other airspace categories?

The MOD considered all airspace categories to achieve “segregation” in accordance with UK regulation for the operation of RPAS beyond visual line of sight and to safely accommodate the RAFAT requirement. Some classes of controlled airspace could have been used to achieve segregation but segregated airspace in the form of a danger area will provide the most efficient use of airspace as it can be more tactically managed. The MOD will be able to activate the danger areas only as and when necessary. In other words, only when activity by either RAFAT or Protector is planned.

## 3. How often will the airspace be activated?

The proposed airspace will not be permanently active; it will only be activated when RAFAT or Protector flying is due to take place. Proven procedures will be adopted 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.

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:

- **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 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.
- 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).

- **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. More detail will be provided as it becomes available.

#### **4. What is the expected duration for a Protector sortie?**

Protector has an endurance in excess of 40 hrs, but is likely to routinely fly sorties of around 14 – 20 hrs. Sortie length will be wholly dependent on the platform tasking, which could demand a longer transit time to a more distant operating / training area.

#### **5. Will civil aircraft be able to access to the proposed new airspace and will it be available at all times when the proposed airspace is active?**

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. Waddington ATC will be manned at all times during RAFAT and Protector operations. Confirmation on the status of the danger areas will be available from other appropriate military ATC units, such as 78 Sqn (Swanwick Military). when RAF Waddington ATC is closed.

#### **6. How can we be assured that the unmanned aircraft operating in the proposed airspace are safe?**

All aircraft in military service are subject to a comprehensive safety approval that meets the same standard as its manned equivalent. This safety approval covers all aspects of design, maintenance, envelope, operation and training and is applicable to RPAS.

#### **7. How will you ensure RPAS will remain separated from other airspace users?**

Establishing segregated airspace with this proposal is to provide a safe environment in which RPAS can operate. In addition to the segregated airspace, all RPAS operations within the proposed airspace will be in receipt of a radar service from military air traffic controllers.

#### **8. If the proposed airspace is approved would it be activated for other military activity?**

The proposed airspace will only be activated to accommodate RPAS and RAFAT operations. However, other military or civil aircraft may, subject to ATC clearance, operate within the airspace at the same time.

#### **What steps are being taken to ensure privacy for the public?**

The MOD is bounded by the Data Protection Act 2018 and, therefore, any data gained by the operation of Protector's sensors will be dealt with in an appropriate manner.

#### **9. What will happen to EG R313?**

Until the successful bidder for Scampton becomes known, it is not possible to identify the final outcome for EG R313. Updates will be provided to stakeholders if they become available throughout the consultation process.

#### **10. How will the MOD ensure that RAFAT displays are conducted safely at RAF Waddington?**

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.

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.

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.

#### **11. Why does RAFAT need special airspace for its display training?**

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.

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.

#### **12. Why does RAFAT need to conduct display training over RAF Waddington?**

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.

**13. Are any other locations being considered for RAFAT flying display practice?**

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.

**14. Are there plans for further airspace changes for another RAFAT practice aerobatics area if EG R313 is disestablished?**

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. Further updates will be provided during the consultation period if they become available via the ACP portal and the FAQ pages.