CAA Operational Assessment

Title of airspace change proposal	Enabling RPAS and RAF Aerobatics Team Operations Out of RAF Waddington
Change sponsor	Ministry of Defence
Project reference	ACP-2019-18
Account Manager	[redacted]
Case study commencement date	
Case study report as at	28 July 2023

Instructions

In providing a response for each question, please ensure that the 'status' column is completed using the following options:

- YES
- NO
- PARTIALLY
- N/A

To aid the SARG Lead it may be useful that each question is also highlighted accordingly to illustrate what is:

resolved YES not resolved PARTIALLY not compliant NO

Executive Summary

The original intent of this ACP was to establish suitable airspace structures in the vicinity of RAF Waddington to enable the operation of the RAF's new large remotely piloted air system (RPAS), known as Protector, from the unit. Protector is expected to enter Service with the RAF with an approved capability to operate beyond visual line of sight (BVLOS) in controlled airspace (CAS); however, it is not expected to have an approved detect and avoid (DAA) capability that could enable the potential for operating BVLOS in class G airspace. Therefore, as RAF Waddington sits in class G airspace, suitable airspace structures are necessary to enable the transit of Protector through the class G airspace into nearby CAS, necessarily requiring the proposed airspace structures to adjoin existing CAS.

During stage 2 of the ACP process, it was agreed that the MOD could amalgamate the emergent requirement for a new training location for the RAF aerobatic team (RAFAT), the Red Arrows, into this ACP. A process to achieve this, while remaining in-process of CAP1616, was agreed and completed during stage 2 with Gateway sign-off.

The proposal developed and evolved during the ACP process in response to stakeholder feedback and now consists of 2 danger area (DA) structures, one 'low airspace' DA from SFC to FL105 and one 'medium airspace' DA from FL105 to FL195. To enable RAFAT training sorties just the low airspace DA would be activated; to enable Protector sorties both DAs would usually be activated. A DACS will be operated at all times by RAF Waddington ATC when the DAs are active.

The notification of the restricted area (RA) at RAF Scampton, EG R313, has been approved for amendment to activation by NOTAM only. This removes a concern raised relating to the cumulative impact to airspace users that would result from the simultaneous activation of the proposed DAs and EG R313. However, the MOD has proposed that the option for simultaneous activation of these adjacent structures is retained, to be assessed by the CAA on a case-by-case basis.

From an operational and technical assessment perspective, this ACP is recommended for approval with one condition, which relates to the finalising of relevant LoAs, which have been provided in mature draft form at this stage.

1.	Justification for change and options analysis (operational/technical)	Status
1.1	Is the explanation of the proposed change clear and understood?	
	In the Final Submission document, the Sponsor provides a clear description and explanation of the proposed change, including a number of useful images and charts, and this is assessed to be easily understood. The change proposal aims to introduce 2 discrete airspace Danger Areas (DAs). The first DA is a 5nm cylinder, centred on RAF Waddington, which extends from the SFC to FL105, referred to as the low airspace structure. This cylinder would be activated in isolation to enable RAF Aerobatic Team (the Red Arrows) flying display training sorties. The second DA is a rectangular box-shaped airspace volume, 18nm x 13nm, which sits atop the cylinder-shaped DA, extending from FL105 to FL195, and abutting the Lincoln CTA controlled airspace (CAS) to the north and the class C CAS and temporary restricted area, TRA003, above. This box-shaped DA, referred to as the medium airspace structure, would be activated simultaneously with the low airspace structure to enable Protector to depart from RAF Waddington, climb to altitude, and enter the adjoining CAS from the medium airspace structure for onward transit to appropriate military training areas.	
1.2	Are the reasons for the change stated and acceptable?	
	The reasons for the change have evolved during the ACP process. The original requirement, as provided in the SoN v1 in March 2019, was to enable the operation of Protector from RAF Waddington, upon its introduction to service with the RAF, and is considered an essential element to facilitate the live training requirement for the new air system in the UK. As a RPAS that is required to be operated Beyond Visual Line of Sight (BVLOS), both civil (CAA) and military (MAA) regulations require its operation to be segregated from other airspace users in class G airspace, which is the classification of the airspace that surrounds RAF Waddington. Upon entry into service, Protector is expected	

	to be approved by the MAA to operate under IFR in class A & C airspace. As such, the Sponsor articulated the requirement to provide segregated airspace, in the form of a DA, to enable Protector to transit from RAF Waddington to appropriate areas of CAS. Once in the existing CAS areas, Protector would be able to transit to and from MOD training areas to enable the UK-based, live training of RAF RPAS crews. During stage 2 (Develop & Assess) of the CAP1616 airspace change process, the RAF developed an infrastructure plan that involved selling the RAF Scampton site, which was the 'home' of the Red Arrows. As a consequence, the RAF needed to relocate the Red Arrows and the decision was taken to base them at RAF Waddington. In addition, it was anticipated that the airspace restricted area (RA), EG R313, which is located over RAF Scampton and was used by the Red Arrows for flying display practice, might no longer be suitable for such flying practice and an alternative training location would be required. It was noted that the low airspace design options proposed in this ACP, to enable the operation of Protector, would also be suitable to contain the training activities of the Red Arrows and, as a result, the Sponsor approached the CAA seeking to incorporate this emerging requirement into the Protector ACP. A mechanism to do so, while remaining in process of CAP1616, was agreed and followed by the Sponsor. A revised SoN v2 was published in November 2021 to incorporate the additional requirement for the airspace change and the Stage 2 Gateway was passed successfully in April 2022. The reasons stated for the proposed airspace change are considered acceptable.	
1.3	Have all appropriate alternative options been considered, including the 'do nothing' option?	
	During stage 2 Develop & Assess, the Sponsor considered a comprehensive list of alternative options, which included the 'do nothing' option alongside different airspace designs, alternative airspace structures and the use of CAS. As a result, the Sponsor is deemed to have considered all appropriate alternative options.	
1.4	Is the justification for the selection of the proposed option sound and acceptable?	
	The justification for the selection of the proposed option is considered sound and acceptable. To arrive at the selected proposed option the Sponsor has followed the CAP1616 process, as evidenced through successful navigation of the required CAP1616 Gateways, and has articulated the rationale for the consideration and discounting of other possible options as they have progressed. These arguments have been accepted at each stage as appropriate, proportionate and acceptable.	

2.	Airspace description and operational arrangements	Status
2.1	Is the type of proposed airspace design clearly stated and understood?	
	The type of proposed airspace design is clearly stated to be the introduction of DAs that will be activated by NOTAM through the Military Airspace Management Cell (MAMC). The description provided is assessed to be clearly understood.	
2.2	Are the hours of operation of the airspace and any seasonal variations stated and acceptable?	

	The proposed DAs will be permanently notified in the UK AIP and activated by NOTAM when required for use; therefore, no routine hours of operation or seasonal variation can be defined. The Sponsor has provided a description of the expected activation and usage of the DAs. Uncertainty that surrounds the identification of the optimal training solution for the Red Arrows has resulted in the Sponsor articulating the 'worst-case' scenario for this activity to be conducted in the proposed low airspace design. This is 6 x 30-minute training slots, daily (usually Monday to Friday only and during daylight hours), from late-September to the end of March, plus occasional weekend use from mid-May to September for display-season training. The estimated initial flying tempo of Protector is up to 3 days per week.	
2.3	Is any interaction with adjacent domestic and international airspace structures stated and acceptable including an explanation of how connectivity is to be achieved? Has the agreement of adjacent States been secured in respect of High Seas airspace changes?	
	There is no interaction with international airspace structures or agreement required of adjacent States in respect of High Seas airspace. The purpose of the medium airspace design is to facilitate the transit of Protector from class G airspace into CAS. As a result, the medium airspace design adjoins vertically to the Lincoln CTA 1, from FL155 to FL195, and Lincoln CTA 2, from FL125 to FL195, and adjoins the class C airspace / TRA003 horizontally above at FL195. The Sponsor also identifies interactions with RAF Coningsby, within the CMATZ with RAF Cranwell and with EG R313. The relative proximity of Humberside is also mentioned but no specific interaction is identified. The submission includes a number of LoAs, in mature draft form, that explain how transit of Protector will be achieved from the medium airspace structure to/from the adjacent CAS. The LoAs are discussed further at para 2.6 below.	
2.4	Is the supporting statistical evidence relevant and acceptable?	
	The Sponsor was able to descope quantified traffic analysis and environmental impact assessments from the proposal due to the low traffic volumes involved and the qualitative assessment of negligible impact from implementation of the proposed airspace volumes.	
2.5	Is the analysis of the impact of the traffic mix on complexity and workload of operations complete and satisfactory?	
	The purpose of the airspace change proposal is to segregate the MOD activities of Red Arrows flying display training and BVLOS RPAS operations from the activities of other airspace users in the vicinity. As such, there is not expected to be a significant change in the levels of complexity or workload as a result of the introduction of the proposed airspace. The analysis presented is considered to be satisfactory.	
2.6	Are any draft Letters of Agreement and/or Memoranda of Understanding included and, if so, do they contain	

	the commitments to resolve ATS procedures (ATSD) and airspace management requirements?	
	The ACP submission makes reference to a number of new and existing LoAs that will need to be finalised prior to commencement of RAFAT and Protector flying operations from RAF Waddington. These include: - LoA between Lincolnshire TATCC (Terminal ATC Centre), RAF Waddington, RAFC Cranwell, 78 Sqn RAF(U) Swanwick, 56 Sqn and RAFAT – presented in draft - LoA between Lincolnshire TATCC and 78 Sqn – presented in draft - LoA between NATS and 78 Sqn – procedures presented in draft - LoA between RAF Waddington ATC and Lincolnshire & Nottinghamshire Air Ambulance –amended LoA presented in draft - LoA between RAF Waddington ATC and the British Model Flying Association –amended LoA presented in draft These LoAs are all in advanced draft form and contain suitable commitments where appropriate. **Recommendation 1** It is recommended that a condition is placed on the approval of this ACP such that the airspace may not be activated until all LoAs have been completed and signed copies provided to CAA AR.	
2.7	Should there be any other aviation activity (low flying, gliding, parachuting, microlight site etc) in the vicinity of the new airspace structure and no suitable operating agreements or ATC Procedures can be devised, what action has the change sponsor carried out to resolve any conflicting interests?	
	During the ACP process, the Sponsor worked closely with the British Parachute School, Skydive Langar, to refine the airspace proposal in such a way as to avoid disruption of the Skydive Langar operation. The Sponsor also makes reference to significant gliding activity that takes place in the area to the west and south of RAF Waddington, predominantly between 2000 – 5000 ft. The airspace from FL105 – FL195 is described as being used by gliders on a relatively infrequent basis. No evidence has come to light to suggest that no suitable operating or ATC procedures exist to limit the impact of the implementation of the proposed airspace structures.	
2.8	Is the evidence that the airspace design is compliant with ICAO SARPs, airspace design & FUA regulations, and Eurocontrol guidance satisfactory?	
	The Sponsor has clearly stated that the airspace design is compliant with CAA policy and CAP740 and shown its intended operation in compliance with FUA regulations and the AMS. Therefore, this is considered satisfactory.	
2.9	Is the proposed airspace classification stated and justification for that classification acceptable?	

	The proposal is for the introduction of two DAs, which will not alter the background classification of the airspace within which they will be established. The Sponsor has provided justification for the use of DAs, rather than the introduction of a more restrictive airspace classification, for example, which has been consistently applied throughout the airspace change process. A key component of this justification is that use of DAs is the most economical airspace construct in terms of hours of activation, access to the airspace by the broadest spectrum of airspace users and manpower resource. This justification is considered to be acceptable.	
2.10	Within the constraints of safety and efficiency, does the airspace classification permit access to as many classes of user as practicable?	
	The use of DAs, coupled with a clear commitment to the provision of a DACS, ensures access to as many classes of airspace user as possible, within the constraints of safety and efficiency.	
2.11	Is there assurance, as far as practicable, against unauthorised incursions? (This is usually done through the classification and promulgation.)	
	In addition to the permanent notification of the proposed airspace through the UK AIP, and its illustration on applicable aeronautical charts, the Sponsor has detailed a robust activation process through the NOTAM system with a minimum 24-hr notification period. The status of the DAs will also be available from ATCUs in the vicinity. In addition, the airspace will only be activated when RAF Waddington air traffic services, including surveillance, are available.	
2.12	Is there a commitment to allow access to all airspace users seeking a transit through controlled airspace as per the classification, or in the event of such a request being denied, a service around the affected area?	
	The proposal seeks to introduce DAs rather than controlled airspace; the Sponsor has stated a clear commitment to the provision of a DACS to ensure access to all airspace users, where possible and within the constraints of safety and efficiency.	
2.13	Are appropriate arrangements for transiting aircraft in place in accordance with stated commitments?	
	The Sponsor has stated a clear commitment to the provision of a DACS managed by RAF Waddington air traffic services (Waddington RADAR). The details are referenced in the provided document titled DRAFT MOD AIR TRAFFIC MANAGEMENT PROCEDURES FOR PROTECTOR AND RAFAT OPERATIONS IN SUPPORT OF ACP_2019-18, and detailed in the draft LoA between Lincs Terminal ATCC, RAF Waddington, RAF Cranwell, 78 Sqn (RAF(U) Swanwick, 56 Sqn and RAFAT which has also been submitted. The CAA notes that operation of the Protector RPAS requires segregation from other airspace users and, as such, any arrangements for the provision of a DACS must recognise this requirement. Therefore, at this stage, requests to cross active DAs within which the Protector RPAS is being operated, are not to be approved and operating procedures and LoAs must reflect this position. **Recommendation 1** at para 2.6 above applies.	

2.14	Are any airspace user group's requirements not met?	
	The sponsor has provided clear evidence of engagement with a broad range of airspace users and stakeholders that are impacted, or potentially impacted, by the proposed airspace. There is no intelligence to suggest that any airspace user groups remain unrepresented.	
2.15	Is any delegation of ATS justified and acceptable? (If yes, refer to Delegated ATS Procedure).	
2.16	Is the airspace design of sufficient dimensions with regard to expected aircraft navigation performance and manoeuvrability to contain horizontal and vertical flight activity (including holding patterns) and associated protected areas in both radar and non-radar environments?	
	The sponsor has worked with the manufacturer to define the volumes of airspace that are required to appropriately contain the vehicle, including a significant amount of work to adjust the automatic takeoff and landing control (ATLC), such that it minimises the volume of airspace required to contain these manoeuvres. As such, it is accepted that the proposed volumes of airspace are sufficient in this regard; the MMA will be responsible for the acceptance of the safety case related to the operation of this military-registered aircraft in UK airspace and for providing the approval for it to be brought into Service.	
2.17	Have all safety buffer requirements (or mitigation of these) been identified and described satisfactorily (to be in accordance with the agreed parameters or show acceptable mitigation)? (Refer to buffer policy letter.)	
	Note: The reference document for this ACP is the SARG policy statement Special Use Airspace – Safety Buffer Policy for Airspace Design Purposes (the Safety Buffer Policy) dated 22 August 2014. An update to this policy document was published 17 July 2023; however, in relation to this ACP, application for dispensation from the buffer policy was submitted by the Sponsor 17 March 2023 and the final submission document was provided 12 April 2023. Having reviewed the updated document, it is confirmed that the key elements of the policy that are relevant to this application remain unchanged. Protector activity: For Protector, the purpose of the airspace proposed by the Sponsor is to facilitate transit from class G airspace into CAS. As a result, the medium airspace design adjoins vertically to the Lincolnshire CTA 1 (FL155 to FL195) and Lincolnshire CTA 2 (FL125 to FL195), and adjoins the class C airspace / TRA003 horizontally above at FL195. Therefore, the Sponsor has applied for the following dispensations to the Safety Buffer Policy:	

- Vertical dispensation is requested as the upper limit of the medium airspace design directly abuts the lower limit of Class C airspace. The MOD presents mitigations in the form of positive ATC management provision and the development of ATM procedures that are the subject of a LoA between the MOD and NATS. Specifically, these procedures will ensure that Protector remains at or below FL175 within the medium airspace design unless a clearance to climb above FL195 has been received from ATC.

- Lateral dispensation iaw para 3.2 (UAS with IAS of 150kts or less) is requested as the northern edge of the medium airspace design directly adjoins two sectors of the Lincolnshire CTA; CTA1 (class A, FL155 to FL195) and CTA2 (class A, FL125 to FL195). The MOD presents mitigations in the form of positive ATC management and the application of an internal 3 nm lateral buffer from the northern edge of the medium airspace design when Protector is operating within 2000 ft of the base of the relevant sectors of the Lincolnshire CTA.

For Protector operations in the low airspace structure, the MOD has applied for the following dispensation:

- Lincolnshire CTA3 (class A, FL105 to FL195) and Doncaster Sheffield CTA13 (class E, FL085 to FL105) are located within 5 nm of the low airspace design (SFC to FL105). Therefore, dispensation to reduce lateral separation between these structures is sought iaw para 3.2 (UAS with IAS of 150kts or less). The MOD presents additional mitigation in the form of positive ATC management provision. The minimum distance of the boundary of the low airspace design is 3.1 nm from Doncaster Sheffield CTA13 and Lincolnshire CTA3, so an external 3 nm lateral buffer is achieved.

RAFAT activity:

RAFAT training sorties will only require activation of the low airspace structure and it is asserted that the activity conducted by RAFAT does not fall within the description of activities requiring implementation of a safety buffer. However, the Sponsor has provided an explanation of standard operating procedures (SOPs) that will be followed by the Red Arrows when conducting flying display practices within the lower airspace design. Specifically, these SOPs will preclude the Red Arrows from flying over the City of Lincoln, thereby preventing any Red Arrows from flying in the northwest sector of the airspace structure and limiting their operation to no closer than 7.3nm to either Doncaster Sheffield CTA13 (class E, FL085 to FL105) or Lincolnshire CTA3 (class A, FL105 to FL195).

On request, through the Sponsor, NATS provided additional statements to clarify its consultation feedback, which was originally interpreted to suggest that the safety assessments had been accepted ‘at this stage’, but that additional ‘safety assurance work’ would be required once the structures had been ‘approved by the CAA’. The clarification confirmed the following:

	• Low Airspace Design: o NATS has concluded that the implementation of the Low Airspace Design (the cylinder) will have no impact on its operation. No further safety work is required for this airspace structure nor does NATS have any further comments or concerns around the CAA Buffer Policy dispensation. • Medium airspace design: o With respect to "*NATS accepts that the mitigations presented by MOD and the Sponsor at this stage and has no further comment or concerns.*". This comment was made regarding the CAA Buffer Policy and as stated in the previous response, we have no further comment or concerns regarding this dispensation. o With respect to "*further safety assurance work will be required to be undertaken with MOD once the design is approved by the CAA*". NATS completed a Safety workshop at the end of July and identified 2 hazards associated with the introduction of this airspace. In accordance with the NATS SMS, they resulted (after mitigation) in 2 Class D risks, which are deemed to be acceptable. The associated Haz ID report is forecast to be signed off in late September 22 and the overall Change Assurance Report is due to be signed off in late October 22. It is noted that the provision of positive ATM is presented as one of the mitigation measures in the application for dispensation from the SUA Safety Buffer Policy as discussed above. This measure provides mitigation to incursion of the safety buffer by those air systems operating within the SUA, and also to incursion by those air systems operating outside the SUA. Finally, the submission document, draft LoAs and the application for dispensation from the Safety Buffer Policy were reviewed by an ATM Regulator, who concluded that there are no reasons to object from an ATM Oversight perspective. A full ATM safety review and regulatory assessment was considered to be disproportionate in relation to this ACP due to the nature of the airspace change and the lack of impact to the network, as confirmed by NATS. **Recommendation 2** It is recommended that the application for dispensation from the Safety Buffer Policy, as described in the document 20230313_ACP-2019-18 SBP Dispensation Proposal.docx, is approved in full.	
2.18	Do ATC procedures ensure the maintenance of prescribed separation between traffic inside a new airspace structure and traffic within existing adjacent or other new airspace structures?	

	The procedures proposed and described by the sponsor, and detailed at para 2.3 and 2.17 above, are considered to be suitable to maintain prescribed separation between traffic operating within the proposed airspace structures and those operating in the adjoining CAS structures.	
2.19	Is the airspace structure designed to ensure that adequate and appropriate terrain clearance can be readily applied within and adjacent to the proposed airspace?	
	Pilots will maintain responsibility for their own terrain clearance when operating within the proposed airspace structures.	
2.20	If the new structure lies close to another airspace structure or overlaps an associated airspace structure, have appropriate operating arrangements been agreed?	
	These operating arrangements are in the process of being agreed through the provision of appropriate LoAs, which are currently in mature draft form. **Recommendation 1** at para 2.6 above applies. CAA AR has been robust throughout the ACP process that the MOD's use of the restricted area at RAF Scampton (EG R313), notified for the use of RAFAT for training sorties, should be resolved prior to the ACP decision period. This is due to the cumulative impact that would be felt by other airspace users, in particular the GA community operating in the area, that would result from coincident activation of the low airspace proposed by this ACP during periods of activation of EG R313. The MOD has now completed a separate airspace change, ACP-2023-036, which has been approved, to change EG R313 to activation by NOTAM only. It has been confirmed that, recognising the potential negative impact to other airspace users, and the stakeholder feedback received during engagement and consultation in relation to this ACP, the MOD does not intend to simultaneously activate EGR313 and the low airspace proposed in this ACP. However, the MOD proposed that, should concurrent activation be required on occasion, this is discussed and assessed on a case-by-case basis between RAF Waddington and the CAA. **Recommendation 3** It is recommended that concurrent activation of the low airspace DA and EGR313 is not permitted unless the following criteria have been met: • The MAA submits to the CAA the reasons for and impacts of simultaneous activation. • Any such application seeks to minimise the duration of simultaneous activation. • The application is submitted with a reasonable amount of time allowed for the case to be assessed by the CAA. • The CAA provides its written authorisation for simultaneous activation at its sole discretion.	

	Recommendation 4 At the point of Decision for this ACP, there remained uncertainty related to the future of EGR313 due to a change of use of the former RAF Scampton site. Continued notification of EGR313 was agreed while the longer term plans for the site, and viability of EGR313 to support RAFAT training activity, were confirmed. It is recommended that, prior to the first activation of the new Danger Area, the MoD confirms to the CAA the planned timelines for assessment and withdrawal of EGR313. If EGR313 has not been withdrawn prior to the submission of the Post Implementation Review, a report will be submitted as part of that review to detail future/removal plans. Any consideration for continued notification of EGR313 beyond the Post Implementation Review period will require robust justification to be presented and accepted by the CAA. Analysis of the impacts of EGR313 continued notification and concurrent activation with the new Lower Danger Area will be required as part of the report.	
2.21	Where terminal and en-route structures adjoin, is the effective integration of departure and arrival routes achieved?	

3.	Supporting resources and communications, navigation and surveillance(CNS) infrastructure	Status
3.1	Is the evidence of supporting CNS infrastructure together with availability and contingency procedures complete and acceptable? The following are to be satisfied:	

	• **Communication:** Is the evidence of communications infrastructure including RT coverage together with availability and contingency procedures complete and acceptable? Has this frequency been agreed with AAA Infrastructure?	
	The existing CNS infrastructure is considered sufficient to enable the addition of the proposed DAs; no further evidence has been required of the sponsor in this regard.	
	• **Navigation:** Is there sufficient accurate navigational guidance based on in-line VOR or NDB or by approved RNAV-derived sources, to contain the aircraft within the route to the published RNP value in accordance with ICAO/ Eurocontrol standards? For example, for navaids, has coverage assessment been made, such as a DEMETER report, and if so, is it satisfactory?	
	The existing CNS infrastructure is considered sufficient to enable the addition of the proposed DAs; no further evidence has been required of the sponsor in this regard.	
	• **Surveillance:** Radar provision – have radar diagrams been provided, and do they show that the ATS route/airspace structure can be supported?	
	The existing CNS infrastructure is considered sufficient to enable the addition of the proposed DAs; no further evidence has been required of the sponsor in this regard.	
3.2	Where appropriate, are there any indications of the resources to be applied, or a commitment to provide them, in line with current forecast traffic growth acceptable?	
	The existing CNS infrastructure is considered sufficient to enable the addition of the proposed DAs; no further evidence has been required of the sponsor in this regard.	

4.	Maps/charts/diagrams	Status
4.1	Is a diagram of the proposed airspace included in the proposal, clearly showing the dimensions and WGS84 co-ordinates? (We would expect sponsors to include clear maps and diagrams of the proposed airspace structure(s) – they do not have to accord with aeronautical cartographical standards (see airspace change guidance), rather they should be clear and unambiguous and reflect precisely the narrative descriptions of the proposals.)	

	The sponsor has provided a number of clear charts and diagrams that describe and depict the proposed airspace structures in a clear manner, including the requisite WGS84 coordinates of the structures.	
4.2	Do the charts clearly indicate the proposed airspace change?	
	The charts provided clearly indicate the proposed DAs.	
4.3	Has the change sponsor identified AIP pages affected by the change proposal and provided a draft amendment?	
	The sponsor has identified the required AIP changes and provided the draft AIP entries that will be required. In addition, the sponsor has provided an illustrative chart amendment that shows the proposed airspace.	
4.4	Has the change sponsor completed the WGS84 spreadsheet and submitted to the CAA for approval?	
	The aerodata has been prepared and submitted to the CAA for approval.	

5.	Operational impact	Status
5.1	Is the change sponsor's analysis of the impact of the change on all airspace users, airfields and traffic levels, and evidence of mitigation of the effects of the change on any of these, complete and satisfactory? Consideration should be given to:	
	a) Impact on IFR General Aviation traffic, on Operational air traffic or on VFR General Aviation traffic flow in or through the area.	
	Stakeholder feedback suggested limited GA traffic numbers operate in the vicinity and would, therefore, be impacted. The sponsor indicates an expectation of negligible impact, due largely to the availability of DACS for both the low and medium airspace DAs. It is also stated that the impact of this ACP on military air traffic is being managed by the MOD as an internal matter and no information on this matter has been provided in the final submission.	
	b) Impact on VFR Routes.	
	There are no VFR routes impacted by the introduction of the proposed airspace structures.	

	c) Consequential effects on procedures and capacity, i.e. on SIDs, STARs, holds. Details of existing or planned routes and holds.	
	There is no evidence of impact to civilian air traffic procedures or capacity. The local MOD units are conducting a review to cater for QRA launches and instrument patterns; again, these are being dealt with internally by the MOD and are not material to the ACP.	
	d) Impact on airfields and other specific activities within or adjacent to the proposed airspace.	
	LoAs have been drafted to coordinate the activity and to mitigate any potential impact; copies of these have been provided in the final submission. **Recommendation 2** at para 2.6 above applies.	
	e) Any flight planning restrictions and/ or route requirements.	
	No restrictions are anticipated to be applied that would impact the submission of flight plans. The sponsor offers that, when flight planning for flights that intend to transit the proposed airspace when notified as active, airspace users should plan to obtain a DACS to transit the proposed airspace. However, users should be prepared to reroute should a DACS not be possible on request.	
5.2	Does the change sponsor consultation material reflect the likely operational impact of the change?	
	The consultation material contained detail that clearly reflected and explained the likely operational impact of the proposed airspace change. The sponsor has maintained an open and transparent dialogue in this regard throughout the ACP process.	

Case study conclusions – to be completed by Airspace Regulator (Technical)	**Yes/No**
Has the change sponsor met the SARG airspace change proposal requirements and airspace regulatory requirements above?	**YES**
The Sponsor has satisfied the airspace regulatory requirements of the CAP 1616 process, as evidenced through successful transition through each Gateway stage of the application. It is noted that, at this stage, a number of LoAs, while considered to be mature draft versions, are yet to be finalised and signed off. As a result, the final submission is considered appropriate, from a technical and operational perspective, to recommend this proposal for implementation, under condition that the proposed airspace cannot be activated until such time as CAA AR has been presented with completed and signed copies of all applicable LoAs.	

RECOMMENDATIONS/CONDITIONS/PIR DATA REQUIREMENTS	Yes/No
Are there any Recommendations which the change sponsor **should try** to address either before or after implementation (if approved)? If yes, please list them below.	NO

GUIDANCE NOTE: *Recommendations are something that the change sponsor **should try** to address either before or after implementation, if indeed the airspace change proposal is approved. They may relate to an area in which the change sponsor is reliant upon a third party to actually come to an agreement and consequently they do not carry the same 'weight' as a Condition.*

Are there any Condition(s) which the change sponsor **must fulfil** either before or after implementation (if approved)? If yes, please list them below.	YES

GUIDANCE NOTE: *Conditions are something that the change sponsor **must fulfil** either before or after implementation, if indeed the airspace change proposal is approved. If their proposal is approved, change sponsors **must observe** any condition(s) contained within the regulatory decision; failure to do so **will usually** result in the approval being revoked. Conditions should specify the consequence of failing to meet that condition, whether that be revoking the ACP or some alternative.*

Recommended Condition 1

It is recommended that a condition is placed on the approval of this ACP such that the airspace may not be activated until all LoAs have been completed and signed copies provided to CAA AR.

It is further recommended that the Sponsor is advised that operation of the Protector RPAS requires segregation from other airspace users and, as such, any arrangements for the provision of a DACS must recognise this requirement. Therefore, at this stage, requests to cross active DAs, within which the Protector RPAS is being operated, are not to be approved and operating procedures and LoAs must reflect this position.

Recommended Condition 4

At the point of Decision for this ACP, there remained uncertainty related to the future of EGR313 due to a change of use of the former RAF Scampton site. Continued notification of EGR313 was agreed while the longer term plans for the site, and viability of EGR313 to support RAFAT training activity, were confirmed. It is recommended that, prior to the first activation of the new Danger Area, the MoD confirms to the CAA the planned timelines for assessment and withdrawal of EGR313. If EGR313 has not been withdrawn prior to the submission of the Post Implementation Review, a report will be submitted as part of that review to detail future/removal plans. Any consideration for continued notification of EGR313 beyond the Post Implementation Review period will require robust justification to be presented and accepted by the CAA. Analysis of the impacts of EGR313 continued notification and concurrent activation with the new Lower Danger Area will be required as part of the report.

Are there any specific requirements in terms of the data to be collected by the change sponsor for the Post Implementation Review (if approved)? If yes, please list them below.	YES

If the ACP is approved for implementation and activation, it is recommended that the sponsor is provided with a copy of the Stage 7 PIR Data Request Form to use as a guide to the data that will be required to inform the PIR. It should also be emphasised that the following will be of particular interest and should be included within the Sponsor's PIR submission:

- Separate record of activation data for each DA, including publication details of NOTAM, time of activation, duration and intended activity.
- Record of occurrences of any airspace activation period that is subsequently unused, including duration of activation prior to cancellation and reasons for cancellation, ie weather, air system unserviceability, etc.
- Requests for DACS, supported and unsupported, with reasoning if unsupported.
- Separate record of applications, approved and rejected, for the simultaneous activation of Waddington Low and EGR313.
    - If approved, record of activation data, including publication details of NOTAMs, times of activation, duration of concurrent activation and intended activities.
    - Requests for DACS during period of concurrent activation, supported and unsupported, with reasoning if unsupported.
- Separate detailed records of any and all inadvertent excursions from each DA.
- Separate detailed records of any and all unauthorised incursions of each DA.
- Noting the approval for dispensation from the SARG SUA Safety Buffer Policy, a report will be required to indicate compliance with the dispensation criteria, to include detailed records of any and all deviations from the dispensation to the Safety Buffer Policy.
- The CAA required the Sponsor to note that requests to cross active DAs, within which the Protector RPAS would be operating, were not to be approved and that operating procedures were required to reflect this position. A report will be required to indicate whether this restriction remains valid, or the operating procedures require amendment.

General summary

This ACP has evolved over time to absorb the RAFAT training requirement, which was originally a standalone ACP, alongside the original requirement to enable Protector RPAS BVLOS operation. AR has been robust through the process, reiterated at each Gateway, that the status of the RAF Scampton RA, EG R313, will be taken into consideration as part of our decision making relating to this airspace application. This has recently been resolved through the approval of an ACP changing the activation of EG R313 from daily operating hours to activation by NOTAM only.

The 2 DAs have been shown to be sized efficiently to contain both proposed activities, with the designs amended in response to stakeholder feedback to minimise their impact on other airspace users. The MOD has provided assurance that the structures will only be activated when RAF Waddington ATC is available to provide a robust DACS, further minimising the potential impact of the structures on other airspace users.

Recommendation 1

- It is recommended that this airspace change application should be approved for notification-only at this stage. A further approval to activate the notified airspace structures by NOTAM should be conditional upon the sponsor providing completed and signed copies of all relevant LoAs to CAA AR.

Recommendation 2

It is recommended that the application for dispensation from the Safety Buffer Policy, as described in the document 20230313_ACP-2019-18 SBP Dispensation Proposal.docx, is approved in full.

Recommendation 3

It is recommended that concurrent activation of the low airspace DA and EGR313 is not permitted unless the following criteria have been met:

- The MAA submits to the CAA the reasons for and impacts of simultaneous activation.
- Any such applications seek to minimise the duration of simultaneous activation.
- The application is submitted with a reasonable amount of time allowed for the case to be assessed by the CAA.
- The CAA provides its written authorisation for simultaneous activation at its sole discretion.

Recommendation 4

At the point of Decision for this ACP, there remained uncertainty related to the future of EGR313 due to a change of use of the former RAF Scampton site. Continued notification of EGR313 was agreed while the longer term plans for the site, and viability of EGR313 to support RAFAT training activity, were confirmed. It is recommended that, prior to the first activation of the new Danger Area, the MoD confirms to the CAA the planned timelines for assessment and withdrawal of EGR313. If EGR313 has not been withdrawn prior to the submission of the Post Implementation Review, a report will be submitted as part of that review to detail future/removal plans. Any consideration for continued notification of EGR313 beyond the Post Implementation Review period will require robust justification to be presented and accepted by the CAA. Analysis of the impacts of EGR313 continued

notification and concurrent activation with the new Lower Danger Area will be required as part of the report.

Comments and observations
Nothing further to add.

Operational assessment sign-off	Name	Signature	Date

Operational assessment completed by Airspace Regulator (Technical)	[redacted]	[redacted]	28/07/2023
Operational assessment approved by Manager Airspace Regulation	[redacted]		25/08/2023

Manager Airspace Regulation Comments:

Comments

Case Technical Regulators comments are noted and my overall recommendation is set out in the Decision Log

Head AAA	Name	Signature	Date
Operational assessment conclusions approved by Head AAA	[redacted]	[redacted]	31/8/2023

Head AAA Comments:

Case Technical Regulators comments are noted and my overall recommendation is set out in the Decision Log