



Ministry of Defence

MINUTES OF ACP 2020-100 ENABLING TEMPORARY REMOTELY PILOTED AIR SYSTEM OPERATIONS IN THE UK – SUMMER 2021 ASSESSMENT MEETING HELD VIA SKYPE ON 14 DEC 20

24 Dec 2020

Distribution List:
All attendees

Present

[Redacted names]

Appointment

[Redacted names]

Representing

CAA
CAA
CAA
CAA
CAA
CAA

MOD
MOD

**attending for training purposes*

CAA Assessment Meeting Opening Statement

The CAA has received the Statement of Need, Assessment Meeting Agenda and the Assessment Meeting Presentation in advance of this Assessment Meeting and can confirm that the documents are required to be published together with the minutes of this meeting on the airspace change portal.

The purpose of the Assessment Meeting as set out CAP1616 is for the Change Sponsor to present and discuss their Statement of Need, provide information on how it intends to fulfil the requirements of the airspace change process and present its provisional timescales. Lastly, the sponsor is required to provide information on how it intends to meet the engagement requirements of the process.

	ACTION
<p>Item 1 – Introduction</p> <p>All attendees were introduced. The mandatory statement was read. The sponsor described the relationship between the MOD and the Defence Unmanned Air Systems Capability Development Centre (UAS CDC) and explained that the UAS CDC was managing the initial aspects of the ACP on behalf of the MOD.</p> <p>[Redacted] explained that the proto-type for Protector, SkyGuardian, is an FAA-registered aircraft (i.e. on the N-Reg) and has a civilian airworthiness certificate. It is planned to deploy SkyGuardian to the UK in the summer of 2021, building on the integration work carried out in 2018 when it flew into RAF Fairford for RIAT.</p>	

Item 2 – Statement of Need (discussion and review)

The MOD introduced its Statement of Need as follows:

- “The MOD is in discussion with the American manufacturer General Atomics (GA) and other European nations regarding the potential for GA to bring its Protector proto-type SkyGuardian (Model number UBC97000-1, Tail Number YBC01) N190TC into European airspace during the Summer of 21. SkyGuardian is a large Remotely Piloted Air System (RPAS) and it is hoped that it will be able to conduct some test flights and other demonstration activity as part of the ongoing airspace integration within UK airspace during the periods of June/July 21 through to September/October 21. In particular, test flights in the vicinity of RAF Waddington where the Aircraft will be based whilst in the UK and the North Sea danger areas as well as other locations (to be confirmed), would be of huge benefit. It is also anticipated that the Aircraft will take part in air shows for the purposes of demonstrations as permitted by the FAA, as it did in 2018. The MOD is also sponsoring ACP-2019-18 however this ACP is separate and only of a temporary nature. Maximum use of existing danger areas around the UK will be made to minimise the establishment of new airspace. Airspace establishment will be kept to a minimum, but requirements may vary subject to flight authorisation issued by the CAAs UAS Sector Team.”
- Altitudes affected:
 - Surface to 4,000 ft;

Post Meeting Note from the MOD: After internal discussion, the MOD may decide to include airspace structures in the form of TDAs above 4000 ft amsl and up to FL 100 in its engagement.

For information the MOD outlined that:

- SkyGuardian is the prototype for the UK’s future RPAS Protector, [REDACTED]. It has flown into the UK in summer 2018 to RAF Fairford for RIAT, transiting through a series of TDAs in the form of corridors.
- The difference next year will be the presence of an on-board detect and avoid (DAA) capability.
- It will be based primarily at RAF Waddington, but it is likely that it may also operate from RAF Lossiemouth towards the end of its deployment.

There were no further comments.

Item 3 – Issues or opportunities arising from proposed change

The MOD outlined the following issues arising from the proposed change:

- Plan is evolving (more information in Item 4).
- SkyGuardian will have an on-board DAA capability, which is certified by the FAA for unrestricted use above 3000 ft agl. Below 3000 ft agl the activity must have some additional procedures or airspace protection.
- It is expected that GA, in tandem with the MOD, will submit a formal request to the UAS Sector Team to accept the evidence for the DAA

<p>capability which will support the operational safety assessment which has been supplied to the US FAA and subsequently certified by the FAA.</p> <ul style="list-style-type: none"> • The intention is to enable the aircraft to climb above 3000 ft and into airspace where the DAA capability can be operated and for onward transit to operating areas / destination aerodromes utilising its DAA capability to integrate in the national air traffic system. The aircraft will descend through 3000 ft agl into appropriately segregated airspace or a known traffic environment as appropriate. The MOD anticipates using extant danger areas where possible for the flying activity. • The MOD is aware of the maximum 90 day duration for TDAs (further discussion in Item 4). <p>The MOD outlined the following opportunities arising from the proposed change:</p> <ul style="list-style-type: none"> • This was a good opportunity to develop better integration of RPAS into the UK airspace and in particular what will be a future State aircraft. The MOD would like to demonstrate file & fly for SkyGuardian operations (notwithstanding the TDA notification requirements). • There is an ambition to test the aircraft's capability against current military assets (e.g against Typhoon in the North Sea Managed Danger Areas (MDAs)). • To demonstrate its capability against to various Other Governmental Departments and NATO colleagues (e.g. MCA, Border Force, etc) in the MDAs. • The opportunity to test the airspace designs for the Protector ACP was thought to be very valuable. The Protector ACP is likely to be approaching or in the consultation phase. It would also demonstrate practical flying performance characteristics to ANSPs. • Provide fly-by at RIAT, RNAS Yeovilton and the Belgian Air Force 75th anniversary celebrations at Florens, fly down to FOST and out to D323 etc to provide valuable flying demonstrations. 	
<p>Item 4 – Options to exploit opportunities or address issues identified</p> <p>Detailed Planning</p> <p>The sponsor recognised that some specific detail was still in development, but asked if there was currently sufficient detail to illustrate the requirements for any TDA(s). If timelines can be agreed in this meeting, the urgency to firm up the planning and to have the evidence for the flight authorisation work provided to the UAS Sector Team can be described to the programme / manufacturer.</p> <p>It was felt that there was sufficient detail to be able to progress from this meeting but that if anything significant became available or changed then another meeting could be convened. Current thinking was to emplace temporary airspace around RAF Waddington and RAF Lossiemouth only and use other extant danger areas or temporary airspace established for RIAT and Yeovilton Air Day.</p> <p>Whilst details of the activity to take place in the interim periods will need to be firmed up, the sponsor was able to provide the following fixed dates:</p> <ul style="list-style-type: none"> • Aircraft arrival in UK – 18 Jun 21 	

<ul style="list-style-type: none"> • BAF 75th Anniversary – 25 Jun 21 • RIAT – 16 – 18 Jul 21 • Royal Navy International Air Show (Yeovilton) - TBD <p>The CAA explained that there would be a number of parallel activities to the ACP such as:</p> <ul style="list-style-type: none"> • Flight authorisation work to be carried out by the UAS Sector Team • Airspace integration work to be carried out by the Airspace Regulation Utilisation Team <p>The airspace integration work will rely on having a detailed plan in order to progress.</p> <p>TDA Duration Policy</p> <p>The MOD explained that the expected date for SkyGuardian to arrive in the UK was 18 June 21 after which it would operate out of RAF Waddington until sometime in September. There was also an aspiration to relocate SkyGuardian to RAF Lossiemouth from where it would support Exercise Joint Warrior until mid/late-October 21. There was, therefore, potential for the requirement for any TDAs established through this ACP to require more than a consecutive 90-day solution. The MOD asked if it would be appropriate to bound this ACP to the period covering operations from Waddington and to run a second ACP for a TDA for the Joint Warrior activities.</p> <p>█ explained that the 90-day policy came out of a directive from DfT in that a temporary solution should not exceed 90-days at the expense of conducting a permanent change. In this instance it could be better to run the establishment of the separate TDAs in one ACP even though it would exceed 90 consecutive days, noting that it is one change process containing several airspace structures and describing the full requirement during the engagement process. █ stated that he would confirm the matter to his manager to ensure agreement and report back if the guidance was otherwise. █ agreed that it would be sensible to combine both locations in one ACP as it would provide a clearer narrative to the stakeholders in engagement.</p>	<p>Action - █</p>
<p>Item 5 – Process requirements</p> <p>TDA Policy Statement</p> <p>█ explained that in 2020 the TDA process was brought under CAP1616. Key points of the process are:</p> <ul style="list-style-type: none"> • Submission of DAP1916 • Assessment Meeting • CAP1616 Stages 1b, 2a & 2b are not required • Consultation is not required, instead conduct targeted engagement • Final submission made, including evidence of engagement, feedback and response to feedback • Stage 5 DECIDE Gateway (28-day decision period) • Decision made via email and uploaded to the ACP portal • Sponsor submits draft AIC 	

- Stage 6 IMPLEMENT – sponsor required to monitor any complaints or feedback during activity

Considerations:

- The AIC cycle needs to be considered for notification purposes
- The DECIDE Gateway will rely on the safety assessment being completed by the UAS Sector Team (time-critical)
- Traffic patterns below 7000 ft over inhabited areas

Stakeholder engagement

█ explained that:

- Whilst it is not a requirement of the process, the CAA provides an option for the MOD to submit its proposed engagement approach and any materials to the CAA for review before commencing their engagement activities.
- As part of this the CAA will review the sponsor's proposed stakeholder list, which needs to be made up of aviation stakeholders only (ANSPs, airspace users, airports, SAR, NPAS, Air Ambulance, selected NATMAC members).
- MOD engagement through DAATM.
- Engagement length is typically 6 weeks, but can be scalable with an approved rationale.
- Engagement materials will need to be published on the portal under Stage 1, if the sponsor would like to use the portal to upload their engagement materials to signpost to during the engagement period.
- Evidence of engagement to be maintained and submitted to the CAA.
- Once engagement is concluded, the MOD is to produce a report summarising the results of the engagement activity (including stakeholders list, means of engagement, responses received and how feedback influenced the final proposal)
- If proposal is likely to affect traffic operating below 7000 ft over populated areas, MOD will need to provide details on how it proposes to inform the relevant communities, if the proposal is approved.
- The MOD will need to explain how it intends to monitor, collate, and report any complaints to the CAA once the TDA has been implemented.
- Report uploaded to the ACP portal under Stage 4.

█ explained that appropriate management of the airspace integration piece of work should be agreed to avoid multiple emails between the sponsor, stakeholders and the CAA. Specifically, this was targeted at the integration of SkyGuardian into airspace outside any TDA. █ agreed to discuss how best to manage this outside the assessment meeting with █ and would confirm a plan of action with the MOD.

█ explained that the MOD is working to an assumption that SkyGuardian will achieve a similar acceptance of the safety assessment from the CAA to that which has been provided by the FAA. If that were not the case, it would be unlikely that the MOD would pursue the activity further due to time constraints.

It was felt that a co-ordinated approach to media and communication should be agreed. It was suggested that the CAA might push out some communication via formalised means, the CAA SkyWise alert facility, NOTAMs, etc. █ stressed that the MOD will provide a robust communications plan and felt that it would be key to manage all media releases around the activity.

Action –
█

<p>Safety Assessment</p> <p>████ stated that the UAS Sector Team is expecting to get an application supported by a standard UK-centric operating safety case (OSC) from GA to support the proposed SkyGuardian activities in 2021. As the timelines for the ACP process are fixed in order to support SkyGuardian’s arrival date of 18 Jun 21, any variation in the information currently available regarding the activity could have a knock-on effect to the approvals process and needs to be made known asap. Once the application is received, the CAA may require further information, so █████ urged the sponsor to submit its application asap.</p> <p>A key point is how much of the FAA’s approval of the DAA capability the CAA can adopt. The CAA has a copy of the Special Certificate of Airworthiness from the FAA as well as details of the experimental certificate surrounding the DAA system itself. A preliminary analysis of the items is underway, but much will depend on how they are defined in the OSC.</p> <p>It was thought a good opportunity to use SkyGuardian’s presence (post-approval) in the UK to inform the Protector ACP/OSC.</p> <p>████ was optimistic in his team’s ability to provide an approval for flight in a TDA in the form of a simple airspace structure.</p> <p>The Sponsor discussed critical dates as to when the formal application must be received (details in Item 6). The Sponsor took an action to provide, in tandem with GA, the application to the UAS Sector Team asap.</p>	<p>Action - ████</p>
<p>Item 6 – Provisional process timescales*</p> <p>Timescales were discussed and █████ offered to take a look at an agreed date for final submission from the MOD, which would depend on CAA workload. The dates of 26 Mar or 2 Apr 21 were suggested. █████ would confirm the CAA’s decision by 18 Dec 21.</p> <p>The ACP will need to meet the AIC publication date cycle. Therefore the timescales to be met are:</p> <p>Submission – either 26 Mar or 2 Apr 21 (TBC)** DECIDE Gateway – 16 Apr 21 Submission for AIC - 23 Apr 21 AIC publication Date - 3 Jun 21 Implementation Date – 18 Jun 21</p> <p>████ agreed that the timelines were achievable for the UAS Sector Team’s work. The CAA agreed to have an internal meeting to discuss timelines for collaborative processes to be agreed (by 18 Dec 21).</p> <p><i>* The provisional timeline put forward at this assessment meeting will be subject to change by the CAA. This will currently mainly be for two reasons;</i></p> <ol style="list-style-type: none"> <i>1. The SoS has directed us to prioritise GNSS applications which may have an impact on your ACP if we need to direct resource accordingly.</i> <p>Post Meeting Note from the CAA:</p> <p>** Noting the caveat above the proposed submission date of 26 Mar for assessing the ACP element. However the required time to review the document will be directly related to the number and scale of TDA requested. It is not necessarily clear how many TDA are being planned to be constructed nor the location and potentially complexity of the solutions. The CAA would endeavour to achieve a</p>	<p>Action - ████</p> <p>Action - ████</p>

<p>decision to enable an AIC submission by the 23 Apr 21. This does not necessarily consider the timeline requirement of other parts of the CAA, particularly for considering any Regulatory approvals for flight between the TDA and Controlled Airspace (i.e. flight in un-controlled airspace) or the integration part of the flight when operating in Controlled Airspace.</p>	
<p>Item 7 – Next steps</p> <p>A draft copy of the minutes of this meeting should be sent to the Airspace Change Account Manager by 21 Dec 20. The minutes of the meeting were to be published and uploaded onto the portal within 2 weeks of this Assessment Meeting. A complete version was to be agreed and presented to the CAA, whilst a redacted version was to be placed on the portal.</p> <p>█ explained that stakeholder engagement could be commenced as soon as the meeting was complete.</p>	
<p>Item 8 – Any other business</p> <p>The sponsor thanked all attendees for their time and advice and for drawing together the meeting at short notice.</p> <p>There was no other business.</p>	

ACTIONS ARISING FROM ACP-2020-100 ASSESSMENT MEETING

Subject	Name	Action	Deadline
TDA Duration	█	To confirm whether a single ACP can cover activities at RAF Waddington and RAF Lossiemouth exceeding 90 days	ASAP
Airspace Integration	██████████	To discuss how to manage airspace integration work outside the TDA	ASAP
OSC Submission	█	To provide the OSC submission to the UAS Sector Team	ASAP
Final Submission Date	█	To confirm the final submission date applicable (26 Mar or 2 Apr 21)	18 Dec 20
Timescales	██████	To agree timescales for collaborative processes	18 Dec 20

MOD
ACP Sponsor