



ACP-2020-100

Enabling Temporary Remotely Piloted Air System Operations in the UK – Summer 2021

Summary of Stakeholder Engagement - Issue 1.1

Roles

Action	Role	Date
Produce	Airspace Change Team UAS CDC	9 Apr 21
Review	DAATM	9 Apr 21
Approve	Change Sponsor RAF AIR Cap	9 Apr 21

Drafting and Publication History

Issue	Date	Change Summary
1.0	26 Mar 21	Initial issue
1.1	9 Apr 21	<p>Additional information provided:</p> <ul style="list-style-type: none"> • Progress with development of procedures for TDA management (page 17, marked in left margin) • MOD's proposed action to monitor feedback during TDA activation (page 18, marked in left margin) • Summary of meeting with gliding, paragliding, hang-gliding representatives (email in Appendix B, page 143) • Military stakeholder feedback (Appendix B, page 147) • Civilian Stakeholder Webex follow-up (new Appendix C) • Summary of Military Stakeholder Workshop (new Appendix D)

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Introduction

This document forms part of the airspace change process (ACP) as outlined in the Civil Aviation Authority (CAA) policy letter for Danger Areas (DAs) and Temporary Danger Areas (TDAs). This is a scaled-down version of the process outlined in the Civil Aviation Publication (CAP) 1616. ACP-2020-100 has been commenced in order to implement segregated airspace in the form of TDAs in the vicinity of both RAF Waddington and RAF Lossiemouth during the Summer of 2021. The ACP sponsor is the Ministry of Defence (MOD).

The MOD is supporting the deployment of the Protector prototype into the UK airspace in the Summer of 2021. Protector is the large Remotely Piloted Air System (RPAS) being procured by the MOD and due to come into service in 2023, for which the MOD has commenced an airspace change (ACP-2019-18). Protector's prototype MQ-9B, named **SkyGuardian**, is a civil-registered RPAS, which will be deployed to the UK this summer and operated by its manufacturer, General Atomics Aeronautical Systems Incorporated (GA-ASI).



SkyGuardian has a 79ft wingspan, is powered by a Honeywell TPE331-10 Turboprop engine and has a gross maximum take-off weight of 12,500lb (5670kg).

The image to the left is of SkyGuardian's arrival in the UK in 2018 after its non-stop transatlantic flight en route to RAF Fairford.

The purpose of this document is to demonstrate that the Change Sponsor has followed the scaled-down version of the CAP 1616 process as outlined in the CAA policy letter for DAs and TDAs. The Change Sponsor has engaged with a range of potential stakeholders to seek their views on the change proposal and collect feedback as to the proposed TDA designs. It is important to assure stakeholders that they are included in the change process and that they have influenced the design. The stakeholder feedback has been analysed and summarised in this document to describe how the feedback has been incorporated into the finalised design.

Executive Summary

The Change Sponsor conducted detailed stakeholder analysis to ensure they effectively engaged with all potential stakeholders over the TDA designs in both the RAF Waddington and RAF Lossiemouth areas.

Stakeholders were engaged in writing and included:

- Local General Aviation (including aerodrome operators)

- Commercial aerodrome operators

- National Air Traffic Management Advisory Committee members

The Change Sponsor attended an online local airspace users forum for the Waddington area prior to the formal engagement and subsequently ran an online presentation with Q&A opportunities for the identified civilian airspace users, followed by an online workshop with the identified military stakeholder community. Face-to-face meetings were not possible due to coronavirus restrictions.

The major theme in the feedback received was concern that the change proposal would restrict freedom of manoeuvre for general aviation and leisure/sporting aviators. No impact on the national air traffic services route structure was identified from the establishment of the TDAs.

Full details of engagement can be found later in this document at Section 2.

As a result of the engagement, significant changes were made to the size and shape of the TDA at RAF Waddington. Smaller changes have been made to the TDA at RAF Lossiemouth, but a shift in the location of this TDA was enabled to allow one stakeholder to operate unhindered.

How this document is laid out

Section 1

We engaged a representative group of aviation and stakeholders.

This section summarises:

- How we identified stakeholders;
- How we engaged with stakeholders;
- The engagement chronology.

Section 2

We developed the final TDA designs based on stakeholder feedback with close communication with the RPAS operator GA-ASI.

This section describes:

- The initial TDA designs sent out for comment by the sponsor;
- A summary of the feedback and how the proposal was adjusted;
- The final TDA designs for submission to the CAA.

Section 3

Next steps in the airspace change proposal.

MOD Action during TDA Activation

Appendices containing list of stakeholders contacted and engagement communication.

Section 1

How we identified Stakeholders.

Since the ACP is following the scaled-down version of the airspace change process, a targeted engagement was required for aviation stakeholders only. Taking into account the size of the initial TDA design, the MOD selected its stakeholders from an area within a radius of approximately 25 nautical miles (NM) of RAF Waddington and RAF Lossiemouth.

Research was undertaken in the defined areas to identify General Aviation aerodromes, General Aviation operators, commercial airports and businesses potentially affected. With the Waddington area specifically, best use was made of ongoing engagement associated with the Protector ACP (ACP-2019-18) as well as requesting assistance from Waddington ATC. For the Lossiemouth area, local airspace charts were scrutinized and RAF Lossiemouth helped to identify affected operators in the area. The CAA also provided assistance in suggesting appropriate stakeholders in the Search and Rescue organisations at both locations.

The assumption was made that NATMAC as an over-arching body, would pass the information down through their communication chains, to inform their representatives to an appropriate level. Notwithstanding the expectation that NATMAC members would cascade engagement literature to an appropriate level, it was important to attempt to identify General Aviation organisations local to, and just beyond, the specified areas. Best efforts were made to reach out directly at this level.

The list of stakeholders can be found in Appendix A.

Engagement methods.

Face-to-face meetings were not possible due to coronavirus restrictions. However, a varied and proactive approach was used to engage with potential stakeholders. This included:

- **Written communication.** An initial email introducing the ACP was sent, along with a letter with details of our initial TDA designs and an explanation about how we would like to engage with stakeholders for feedback on our proposal. The letter included details on how to leave feedback, our direct email address for any questions or feedback and notification of an online Webex for all stakeholders to attend if they wished. Details are available on the ACP portal.
- **Live Webex event for civilian stakeholders.** A live Webex event was held for civilian stakeholders. The Change Sponsor was able to provide more detail to the proposal and to provide answers to questions that had been presented in advance. In addition a short live Q&A session was managed. However, stakeholders were advised that any points raised in the Q&A would not be accepted as formal feedback, due to CAP 1616 requirements placed on the Change Sponsor. Any points that stakeholders wished to be taken into account would have to be followed up in writing to the Change Sponsor. A summary of this meeting was posted on the ACP portal.
- **Live military stakeholder workshop (via Webex).** The Change Sponsor ran an internal online MOD workshop with military stakeholders, which provided the opportunity for direct liaison with the Change Sponsor. Military feedback was

presented via internal means in writing by Defence Airspace and Air Traffic Management (DAATM).

- Continued written communication as feedback was received.

The formal period for the stakeholders to send feedback was six weeks (total 30 working days), which is in accordance with CAA guidelines for a scaled-down engagement. The engagement period ran from 29 Jan – 12 Mar 21.

Engagement chronology.

The table below details the engagement activity undertaken.

Date	Action / Stakeholders Contacted	Notes
26 Jan 21	All attendees at the Lincolnshire Airspace Users Group held online by RAF Cranwell (mix of 50 military and civilian airspace users)	PPT presentation giving update on Protector ACP and heads-up on TDA engagement for SkyGuardian and the airspace change process for a TDA
29 Jan 21	Engagement material sent to all identified stakeholders by email	Feedback requested by 12 Mar 21, allowing 6 week engagement period. Accompanied by Feedback Response Form.
9 Feb 21	Civilian Stakeholder Webex	PPT presentation and Q&A session
16 Feb 21	Webex summary placed on ACP portal	
18 Feb 21	Military Stakeholder Workshop	PPT presentation and workshop
4 Mar 21	Webex held with gliding, paragliding, hang-gliding representatives (see summary in Appendix B)	Informal discussion to identify areas for further investigation to minimise TDA impact
29 Jan – 12 Mar 21	Responding to stakeholder feedback	Contact made by 54 organisations or individuals regarding potential airspace change.

Section 2

Initial TDA Designs

An initial TDA design was drawn up to cater for activities at both RAF Waddington and RAF Lossiemouth. The initial designs are at Figure 1 and Figure 2 below. They are identical in size and shape, oriented to each aerodrome's main runway. The TDAs are centred on the Aerodrome Reference Point (ARP)¹ and are aligned with the main runway.

Dimensions are as follows:

- 10NM wide, extending 5NM either side of the main runway centreline for both runway directions;
- 18NM long with the north-east and south-west boundaries following a 9NM arc measured from the ARP
- The vertical dimensions are:
 - Area A is from surface level to an upper level of 3000ft above aerodrome level (AAL)
 - Area B has a lower limit of 3000ft AAL and an upper limit of Flight Level (FL)100



Figure 1 - Initial TDA Design at RAF Waddington

¹ Aerodrome Reference Point is the designated geographical location of an aerodrome, normally taken as the geometrical centre of the runways.

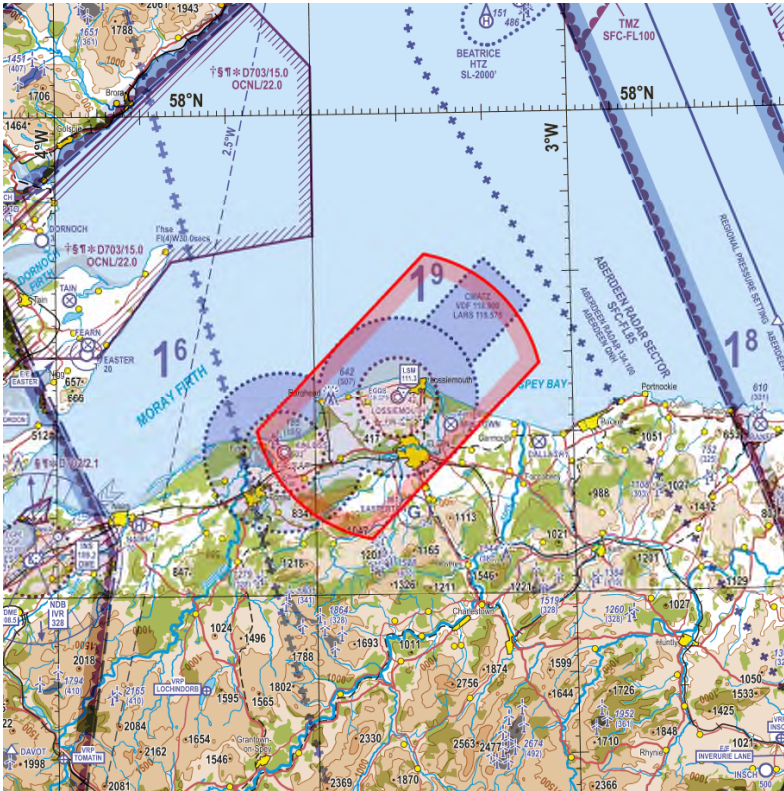


Figure 2 - Initial TDA Design at RAF Lossiemouth

Summary of Stakeholder Feedback & Impact on TDA Proposal

The stakeholder feedback has been analysed and summarised in this document to describe how the feedback has been incorporated into finalised TDA designs. Work is ongoing in parallel within the CAA to deliver the flight authorisations for SkyGuardian and the wider airspace integration requirement outside the TDA. A safety assessment for the activity is part of this work.

Engagement material was sent out to 132 aviation stakeholders as listed in Appendix A. Responses from 50 stakeholders were received. The record of engagement communication is presented in Appendix B. Military feedback was presented via internal means in writing collated by DAATM and is presented in Appendix B. Analysis of the responses identified a number of key themes from the issues raised. These themes are identified in Table 1 and the number of times each theme was raised is shown in Figure 3.

A number of questions were raised during the Webex held for civilian stakeholders, which the Change Sponsor undertook to provide a response outside the meeting. A summary of the questions and responses is at Appendix C.

Table 1 - Key Themes

ID	Theme	Description
1	Impact on airspace users	Access for local strip users, impact on gliding clubs, concern for non-R/T aircraft, restriction of Class G airspace.
2	TDA design	Dimensions, lower limit of Area A, location of proposed airspace, suggested amendment of design.
3	Air Traffic Management	Provision of air traffic services throughout activation (with particular emphasis on emergency service requirements), clarification of prioritisation of SAR TDAs versus MOD TDAs, availability of DACS, minimizing of activation periods.
4	Safety	Safety assessment for mid-air-collision (MAC).
5	Notification	Period of notice for activation (weekday and weekend activation), activation means, telephone notification, ATIS broadcast.
6	ACP process	Clarification of ACP process for TDAs (90-day duration, 2 locations), TDA use for trials flying.
7	Engagement process	Timing of commencement of ACP engagement
8	Operation of SkyGuardian	Alternative flight profiles suggested, request for information about flying tempo and sortie duration.
9	General	General objection to implementation of TDAs with no further detail.

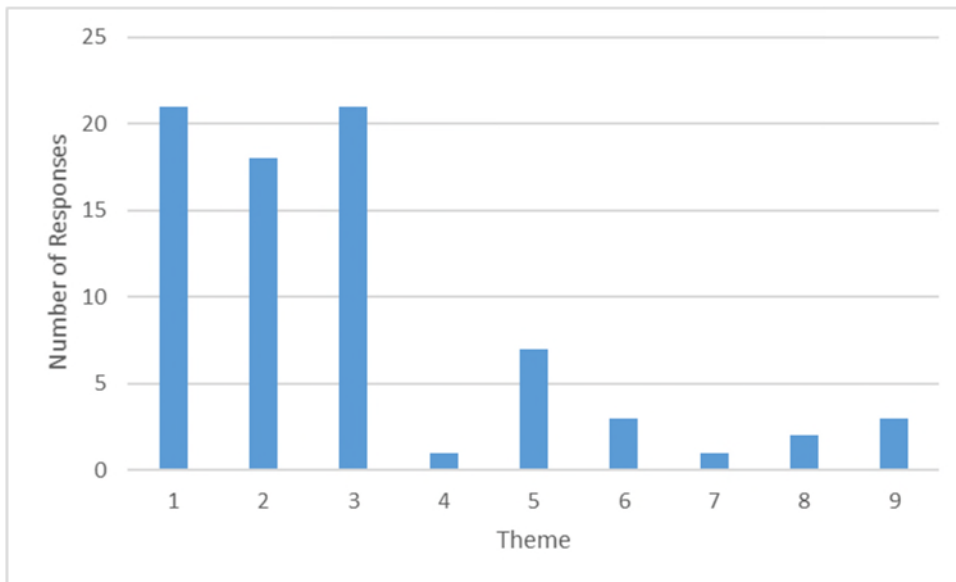


Figure 3 - Responses by Theme

The MOD has the following comments on the key themes and subsequent impact on the TDA proposal:

- **Impact on airspace users**

Key Issues. We have listened carefully to the concerns of many of the civilian airspace users in both locations regarding their concerns about the inability to continue to operate from airstrips in the vicinity of the TDAs. In particular there is much concern from GA pilots who operate routinely from within the proposed TDA airspace. The gliding community is concerned about the impact on activity to the west of Waddington and to the south of Lossiemouth, in addition to the ability to route between Waddington and Scampton when favourable conditions apply. There was also concern expressed about the inability of non-R/T aircraft to obtain a DACS. There was general concern about the restrictions places on GA activity in Class G airspace. The military units affected by the TDAs commented that access to the Waddington TDA by other units would be covered in a Letter of Agreement (LoA) and managed by Waddington ATC. Waddington are well-practised in managing EG R313 and co-ordinate closely with the other local ATC units and Swanwick(Mil).

Impact on TDA proposal. Both TDAs have reduced lateral dimensions and at RAF Waddington especially, procedures are being developed to enable GA activity that remains within its new boundary to continue with minimal impact. The TDA at RAF Lossiemouth has been reshaped and shifted to the northeast to enable activity from Easterton / Highland Gliding Clubs to continue unhindered. We have engaged with members of several gliding, paragliding and hang-gliding organisations and intend to follow up on a few initiatives which could improve access to and/or communication regarding the Waddington TDA (e.g. co-ordinating SkyGuardian departure times to better accommodate gliding cross-country opportunities when favourable conditions are forecast, the use of a text messaging service for non-R/T aircraft, text-based ATIS). Waddington and Lossiemouth ATC will continue engagement and dialogue with affected civilian stakeholders if this ACP is successful.

- **TDA design**

Key Issues. Concern about the size of the proposed TDAs was expressed. Some stakeholders felt that the lateral dimensions were excessive and that there was little justification for the lower limit of Area A to reach down to the surface throughout. Reorientation of the Waddington TDA was proposed by one stakeholder. Others suggested that the MATZ dimensions at Waddington should suffice to contain the SkyGuardian activity. One stakeholder offered a suggested amendment to the TDA at Lossiemouth to assist the local gliding operations.

Impact on TDA proposal. Both TDAs now have reduced lateral dimensions. The Waddington TDA has been reduced to a design which is smaller than the current MATZ laterally. It should be pointed out that neither the ATZ or MATZ provide sufficient protection for RPAS BVLOS activity; the TDA construct provides segregated airspace in accordance with CAP 722. The comments regarding the lower limit of Area A has been addressed by the reduction of dimensions at Waddington. RAF Lossiemouth preferred to keep the vertical dimensions for Area A as proposed as they felt able to provide the local airspace users with a DACS to enable activity to continue over the sea, with particular consideration for

emergency services and SAR training. The Lossiemouth TDA has been repositioned to assist activity at Easterton / Highland Gliding Clubs.

- **Air Traffic Management**

Key Issues. Several stakeholders felt that the provision of air traffic services was very important during the hours of TDA activation at both locations. Particular reference to this was made by all of the emergency services / responders in their feedback. There was a call for some decision on prioritisation between a SAR-type TDA and the SkyGuardian TDAs. Similarly a DACS was felt to be of importance throughout TDA activation to maximize access to the TDA and minimise disruption to all airspace users. Several stakeholders stressed that the activation periods should be kept to a minimum and that the TDAs should only be activated for periods of SkyGuardian launch and recovery.

Impact on TDA proposal. The ATC units at RAF Waddington and RAF Lossiemouth will be open during all periods of TDA activation at their specific locations. Normal air traffic services will be available along with a DACS and normal priorities will be afforded for emergency access of Cat A and B flights. The MOD is following-up on the request to agree protocols for TDA prioritisation with SkyGuardian v. SAR TDAs, for example. Furthermore investigations are underway to explore how best to manage the TDA activation periods to minimise the impact on other airspace users, acknowledging the limitations of the notification system that is in place currently in the UK. Several options are being considered with particular focus on the longer duration sorties from RAF Waddington.

- **Safety**

Key Issues. One stakeholder commented that by implementing TDAs of such dimensions, there could be an impact on the risk of mid-air collision (MAC) to aircraft operating outside the TDAs.

Impact on TDA proposal. The MOD has considered this and feels that the risk of MAC outside the TDAs is mitigated by the reduction in size of the TDAs (especially at RAF Waddington), the availability of a DACS and the minimal time that SkyGuardian will spend in the TDAs at both locations (thereby maximizing the opportunity to successfully obtain a DACS).

- **Notification**

Key Issues. Stakeholders were keen to understand the notification process for activation of the TDAs. It was felt that a minimum of 24hrs notice would be required and that a minimum of 7 days notice of any weekend activation would be appropriate. A continuous Automated Terminal Information Service (ATIS) broadcast at RAF Waddington and RAF Lossiemouth was thought to be beneficial on activation days, thereby increasing situational awareness and safety to pilots whilst reducing workload on controllers and disruption to airspace users. The presence of the broadcast could be included in NOTAMs about the activity. One local airport requested notification by telephone on the day of TDA activation at Waddington.

Impact on TDA proposal. We see the promulgation by NOTAM with at least 24hrs notice as routine business and see no reason why 7 days notice should not be given prior to any weekend activation. In addition, we think the ATIS broadcast option has value and we are investigating it at both locations, noting there are limitations to its utility for VHF pilots. However, in the short-term a telephone broadcast might work. RAF Waddington ATC has confirmed that it will be routine practice to complete a "ring-

round” of appropriate local organisations prior to TDA activation and has been put in touch with the stakeholder.

- **ACP process**

Key Issues. One stakeholder queried the ACP process for a TDA and the fact that duration for the TDAs extend beyond the usual restriction of 90-days. In addition it was pointed out that the proposal covers 2 locations. Proposed trials flying of the procedures under early development for Protector was also questioned since this was perceived as requiring greater segregated airspace than that required for SkyGuardian. Also it was not felt appropriate to conduct trials flying under the arrangements for this ACP. Finally, the Statement of Need on the CAA ACP portal does not contain any reference to RAF Lossiemouth as a location for SkyGuardian basing in the UK.

Impact on TDA proposal. The MOD highlighted the 90-day stipulation with the CAA during the Assessment Meeting on 14 Dec 21, alongside the developing requirement for RAF Lossiemouth as an additional basing location. By adding RAF Lossiemouth as an option, the TDA requirement exceeded 90-days. It was felt appropriate to present both locations in one ACP in order to best describe the UK activity. It also negated the requirement for additional workload on all parties including the aviation stakeholders. The CAA was in accord. The trials flying that was envisaged, was not “flight trials” per se, but more akin to a simple emulation of the procedures that the RAF are developing for Protector. The MOD has further discussed how best to accomplish this and has decided that it will achieve whatever it can within the reduced dimensions.

Engagement process

Key Issues. One stakeholder felt that the engagement for this TDA was ill-timed, with insufficient information available.

Impact on TDA proposal. We were aware in taking the ACP to targeted engagement on 29 Jan 21, that some useful information and agreements were still being formulated. However, in order to meet the tight timescales and to provide a 6 week engagement period, we opted to commence and to provide sufficient essential information to enable a credible and valuable engagement to take place.

- **Operation of SkyGuardian**

Key Issues. Alternative flight profiles were presented to cater for the climbout and recovery of SkyGuardian from both locations, RAF Waddington specifically. Information regarding the forecast flying tempo and sortie duration for the SkyGuardian deployment.

Impact on TDA proposal. Best use of the airspace was considered, with particular reference to the congested airspace surrounding RAF Waddington. In collaboration with GA-ASI the initial designs were drafted. Reductions in the lateral dimensions have been made also in collaboration with GA-ASI. An indication of the flying tempo and sortie duration was briefed during the civil stakeholders’ Webex and the military workshop. The flying schedule will be finalised at the end of March 2021 and will be posted on the CAA ACP portal.

- **General**

Key Issues. 2 stakeholders expressed a general objection to the implementation of the TDAs. No further details were given.

Impact on TDA proposal. N/A

Final TDA Designs

During the Webex for civilian aviation stakeholders and the ongoing engagement with the military stakeholders, the Change Sponsor was able to explain that a reduction to the lateral boundaries of the TDAs was being investigated with the manufacturer and operator of SkyGuardian, GA-ASI. The minimum airspace requirement associated with the preferred flight profiles was becoming better understood and so in conjunction with the TDA Control Authorities, RAF Waddington and RAF Lossiemouth, some significant reduction in TDA size was anticipated. The means by which SkyGuardian is to be integrated with other station flying is markedly different at each TDA location, with differing operational priorities and demands. Hence the TDAs at RAF Waddington and RAF Lossiemouth have different lateral dimensions.

The final dimensions are as follows:

RAF Waddington (see Figure 4):

- A circle, radius 5NM, centred on the ARP (530958N 0003126W)
- The vertical dimensions are:
 - Area A is from surface level to an upper level of 3300ft above mean sea level (AMSL)
 - Area B has a lower limit of 3300ft AMSL and an upper limit of FL100

RAF Lossiemouth (see Figure 5):

- Area bounded by:
 - 574550N 0032703W –
 - 575243N 0031450W thence clockwise by the arc of a circle, radius 5NM, centred on
 - 574917N 0030803W to
 - 574550N 0030118W –
 - 573858N 0031331W thence clockwise by the arc of a circle, radius 5NM, centred on
 - 574224N 0032016W to 574550N 0032703W.
- The vertical dimensions are:
 - Area A is from surface level to an upper level of 3000ft AMSL
 - Area B has a lower limit of 3000ft AMSL and an upper limit of FL100



Figure 4 - Final Design for TDA at RAF Waddington

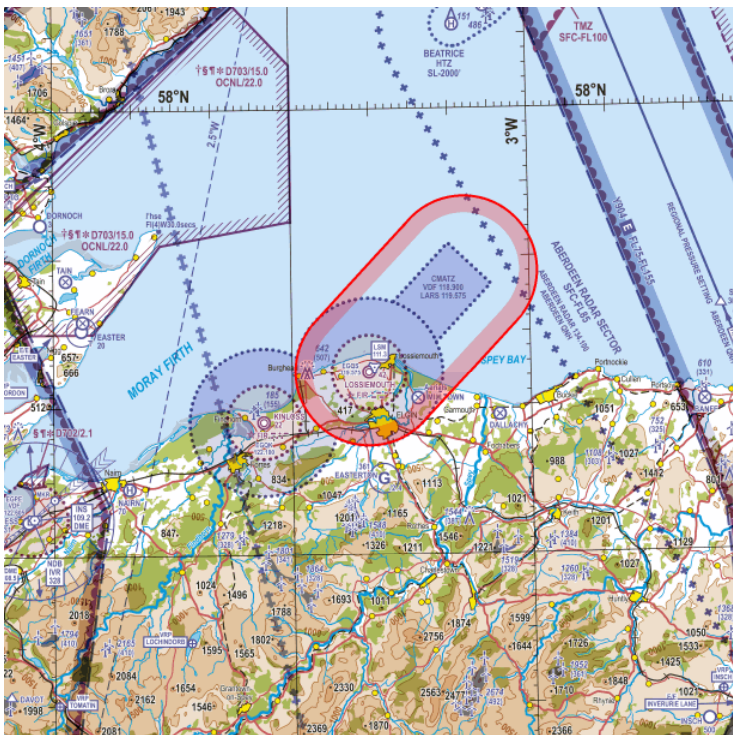


Figure 5 - Final Design for TDA at RAF Lossiemouth

Both RAF Waddington and RAF Lossiemouth have been consulted as to how the TDA will be managed and how they intend to integrate SkyGuardian with their routine station-based traffic, as well as any visiting aircraft, diversion commitments etc. RAF Lossiemouth is likely to experience higher traffic levels than usual during SkyGuardian's deployment, since there will be additional aircraft associated with Exercise Joint Warrior.

RAF Waddington feels that it can safely accommodate the SkyGuardian operation within a TDA with reduced lateral dimensions as shown in Figure 4.

RAF Lossiemouth is a Quick Reaction Alert (QRA) station and operates 24/7 to facilitate no-notice national and airborne security missions which are the MOD's highest priority. It is also a busy Main Operating Base with multiple Typhoon squadrons and P8 Poseidon activity. These missions must continue unhindered and therefore SkyGuardian activity is required to be managed around them, with suitable prioritisation of flights agreed.

Rather than full integration from the start, both aerodromes will develop procedures to safely deconflict SkyGuardian from other flying activity. RAF Waddington forecasts a gradual change of procedures to enable full integration of assets by the end of its deployment; RAF Lossiemouth feels that full integration is not possible due to its QRA commitment. For that reason its final TDA has larger lateral dimensions and has been re-positioned further over the sea in order to provide an area for SkyGuardian's climbout, descent and any hold requirements that will not compromise the ADPF assets.

Both Waddington and Lossiemouth ATC are carrying out significant activity in accordance with the RAF Battlespace Management Safety Management Manual. Suitably Qualified and Experienced Personnel (SQEP) panels have been convened to assess the impact of the SkyGuardian activity at their respective locations and it is likely that the outcome of the SQEP panels is for both units to complete a Safety Assessment of Change (SAofC). Furthermore it is likely that one or more letters of agreement (LOAs) and/or local orders will be required to be drawn up to define procedures for affected stakeholders/units during the SkyGuardian deployment. This process has to follow a defined order and it is anticipated that the SAofC will be complete by the end of April 21 at the earliest. Any required LOA(s) will be detailed in the action record incorporated in the SAofC; it is anticipated that the LOAs will be at final draft stage by the end of May 21 at which point they may be shared with the CAA for scrutiny. At any rate all LOAs will be signed and in place prior to the implementation of the TDAs.

The TDA designs will enable RPAS flights under 7000ft above ground level. However, it was felt that the proposal is not likely to affect traffic operating below 7000ft over populated areas for the following reasons:

- Both TDA locations:
 - SkyGuardian is a single air vehicle operating for short periods of time within the proposed TDAs Area A & B;
 - It is powered by a Honeywell TPE331-10 Turboprop engine, which is likely to produce lower levels of noise than some other station-based aircraft;
 - A DACS is available at all times during TDA activation to enable other airspace users to transit as usual;
 - Similar departure and recovery profiles are conducted by existing station-based aircraft;
 - No civil aerodrome arrival or departure profiles will be affected.
- RAF Waddington TDA:
 - Since the major local city, Lincoln, is within the lateral boundaries of the TDA, any aircraft requiring to route around the TDA is unlikely to fly over densely populated areas;
- RAF Lossiemouth TDA:
 - The majority of the TDA is over water

Section 3

Next Steps

This document will be submitted to the CAA as evidence to support the scaled down process for TDA submissions.

The following timeline is anticipated:

Event as per CAP 1616	Planned Date
Stage 5 – Decide	16 Apr 21
Stage 6 - Implement	18 Jun 21

MOD Action during TDA Activation

The MOD will collate, monitor and report to the CAA on stakeholder feedback received by telephone, email or any other means during the periods of the TDA activation. This will be managed on a four-weekly basis throughout the duration of both the TDA at RAF Waddington and RAF Lossiemouth, starting from the date of the first activation in each location. The means by which to provide this information will be communicated to all stakeholders who responded during engagement, but only once the ACP been approved. Should the feedback received, and in consultation with the CAA, lead to any changes to the operation of the TDA complex, the MOD will also communicate this to all stakeholders who responded.

Appendix A

Aviation Stakeholders:

NATMAC Members² (37 members sent engagement material)
 Ambucopter (Air Ambulance Lincs)
 Bristow SAR – Humberside
 Bristow SAR – Inverness
 Babcock Mission Critical Services Offshore (air Ambulance & police Scotland)
 Gama Aviation (Air Ambulance)
 Helicentre Aviation (Pipeline Inspection)
 Heli Air (Pipeline Inspection)
 HM Coastguard
 National Grid (Powerline Inspection)
 NHS.Scot (Air Ambulance in the vicinity of Lossiemouth)
 National Police Air Service (NPAS)
 PDG Helicopters
 Specialist Aviation Services (Air Ambulance)
 Western Power (Powerline Inspection)
 Lincs and Notts Air Ambulance

Waddington Stakeholders:

40 Acre Farm Aeroclub
 Anwick Airfield
 Auborn Peacocks
 Boston Aero Club
 Pointon Airfield
 Buckminster Gliding Club
 Castle Bytham Airfield
 Caunton Flying Club
 Conington Airfield
 Darlton Airfield
 Decoy Farm
 Derbyshire Soaring Club
 Doncaster Sheffield Airport
 East Midlands Airport
 Frank Morgan Flying School
 Grove Farm Strip
 Headon Microlight
 Hibaldstow Airfield
 Hougham Airfield
 Hucknall Airfield
 Humberside Airport
 Lambley airstrip
 Langar Airfield
 Leicester Aero Club
 Leicester Airport

² No contact made with Airlines UK and British Airways (email to POCs undeliverable and new contact information not forthcoming).
 Isle of Man CAA not contacted as not thought appropriate for this ACP.

Lincolnshire Gliding Club
Long Sutton Airstrip
Loxly Airstrip
Netherthorpe Airfield
New York Airstrip
North Coates Airfield
Peterborough and Spalding Gliding Club
Rectory Farm
Retford Airport
Skegness Airfield
Stapleford Strip
Strubby Airfield
Sturgate Airfield
Sywell Airfield
Temple Brewer Airfield
Trent Valley Gliding Club
Wickenby Airfield
Wilsford Airstrip

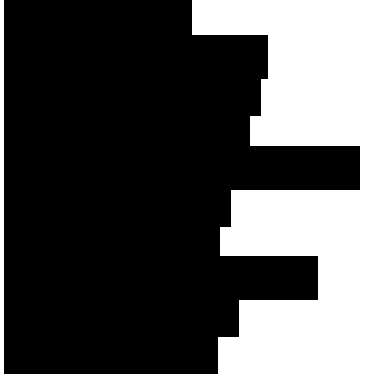
Lossiemouth Stakeholders:

Aberdeen Airport
Deeside Gliding Club
Dornoch Aerodrome
Easter Airfield
Fulmer Gliding Club
Highland Gliding Club
Inverness Airport

Other:

29 individually contacted GA pilots who expressed an interest in this ACP or the Protector ACP:

[REDACTED]



Appendix B – Raw Engagement Records

Archived: 26 March 2021 12:56:36

From: UASCDC-ACP

Sent: 04 February 2021 19:47:00

To: [REDACTED]

Subject: RE: UC ACP-2020-100 Stakeholder Engagement

Sensitivity: Normal

Attachments:

ACP-2020-100 SkyGuardian TDA Engagement Letter.pdf [PDF] CP-2020-100 Stakeholder Engagement Response Form.docx [DOCX] 9b-skyguardian-datasheet.pdf [PDF]

[REDACTED]

Thank you for your email. Please find attached the engagement material sent to stakeholders last week. I had sent the material to [REDACTED] as that was the most recent point of contact I had for your club.

You are now on my list now as a key stakeholder and will send an invitation to you all for the webex event.

[REDACTED]

Air Traffic Management Specialist
Defence UAS Capability Development Centre



 Please consider the environment before printing this email.

From: [REDACTED]

Sent: 01 February 2021 15:10

To: UAS CDC-ACP <UAS CDC-ACP@qinetiq.com>; robin parker <robparker10@yahoo.co.uk>; Richard Malam <richard.malam@gmail.com>; Wayne Dewick <pwdewick@hotmail.com>

Subject: UC ACP-2020-100 Stakeholder Engagement

Dear Sir/Madam

I am contacting you in relation to UC ACP-2020-100. We believe we are a stakeholder that should be engaged in this process. We would be grateful if you could send us the information and if we could be invited to the live engagement meeting on the 9th February.

Regards

[REDACTED]
Chairman Trent Valley Gliding Club

Archived: 26 March 2021 12:46:11
From: [UAS CDC-ACP](#)
Sent: 05 February 2021 11:26:00
To: [REDACTED]
Subject: RE: UC ACP-2020-100 Engagement Letter
Sensitivity: Normal
Attachments:
[image002.wmz](#)

[REDACTED]

Yes all received and I responded yesterday evening. I note that I don't have a number to call you on, so unable to ring. If you are happy to supply one, I'll give it a try.

[REDACTED]

[REDACTED]

Air Traffic Management Specialist
Defence UAS Capability Development Centre

[REDACTED]



 Please consider the environment before printing this email.

From: [REDACTED]
Sent: 05 February 2021 05:08
To: [UAS CDC-ACP](#) <UAS CDC-ACP@qinetiq.com>
Subject: RE: UC ACP-2020-100 Engagement Letter

[REDACTED]

Just wanted to confirm that you got the email below and so to ensure your team has enough time to generate answers?
On the DAA side of things one thing that has come out of our wood work is that hot air balloons paint very poorly on radar and do not carry any EC, but tend to be detected by VFR pilots seeing them!!!!

Regards

[REDACTED]

Programme Manager
General Aviation Alliance

From: [REDACTED]
Sent: 01 February 2021 01:04
To: 'UAS CDC-ACP' <UAS CDC-ACP@qinetiq.com>
Subject: RE: UC ACP-2020-100 Engagement Letter

[REDACTED]

Thank you for the Engagement documentation – it is so much better than we have come to expect/fear from other drone TDA ACP sponsors!

As requested a few questions in advance of the live online engagement meeting:

1. We are concerned about the capabilities of the detect part of the detect and avoid. The UK has a considerable quantity of non-electronically conspicuous manned aviation that is known to paint poorly on radar, e.g. gliders, hang gliders, paragliders, etc. What information is available as to the testing against such targets that has been verified as part of the FAA certification? Not forgetting the FAA's somewhat coloured recent past!!!
2. Is the MoD aware that manned aircraft with small or effectively no radar signatures are routinely allowed above FL100 without transponders?
3. Why is the volume of airspace needed down to the surface over 8nm from the touchdown point in use?
4. Will a non-functioning ADSB out facility be a no go item?
5. The documents on the CAP1616 portal talk about a visit to Yeovilton, how can it operate there without a TDA?
6. The documents on the CAP1616 portal talk about a visit to RIAT, will all activity be within RIAT's TDAs?
7. What are the deemed differences between operating at say 2,000ft and 3,500ft that necessitates the TDA ceiling of 3,000ft
8. What will typical sorties look like, and what will the associated TDA notifications look like?
9. Accepting that the flying programme (or is it "program" because it is an American aircraft) has not yet been decided what will be a typical number of flights per week?
10. The document says, "it is envisaged that the majority of SkyGuardian flying will take place Monday – Friday". Other than for flights at RIAT can any weekend/Bank Holiday flying be notified at least a week in advance

Please do call to discuss if it would be of use, due to poor coverage please try the landline first: [REDACTED]

Regards

[REDACTED]

Programme Manager
General Aviation Alliance

Email: [REDACTED]

From: [UAS CDC-ACP](#) <UAS CDC-ACP@qinetiq.com>
Sent: 29 January 2021 17:11
To: [UAS CDC-ACP](#) <UAS CDC-ACP@qinetiq.com>
Subject: UC ACP-2020-100 Engagement Letter

Dear Stakeholder,

Please find attached a copy of the engagement material relating to the proposed establishment of Temporary Danger Areas (TDAs) in the vicinities of RAF Waddington and RAF Lossiemouth during the Summer 2021. You are being sent this document as a potential stakeholder.

[Redacted]

Please Note:
The MOD is also sponsoring ACP-2019-18
"Enabling Remotely Piloted Air System Operations Out of RAF Waddington"
This ACP is completely separate.

[Redacted]



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Archived: 26 March 2021 17:24:30

From: UASCDC-ACP

Sent: 05 February 2021 15:27:00

To: [REDACTED]

Subject: RE: UC ACP 2020 100 - New stakeholder and request invite to Tuesday webex meeting

Sensitivity: Normal

Attachments:

ACP-2020-100 SkyGuardian TDA Engagement Letter.pdf [REDACTED] ACP-2020-100 Stakeholder Engagement Response Form.docx [REDACTED] 9b-skyguardian-datasheet.pdf [REDACTED]

Dear [REDACTED]

Thank you for your email. I have added you to my stakeholder lists and will forward an invitation to the Webex this afternoon. Please find attached the stakeholder engagement material I released last Friday.

[REDACTED]
Air Traffic Management Specialist
Defence UAS Capability Development Centre



 Please consider the environment before printing this email.

From: [REDACTED]@derbyshiresoaringclub.org.uk>

Sent: 05 February 2021 11:58

To: UASCDC-ACP <UASCDC-ACP@qinetiq.com>

Subject: ACP 2020 100 - New stakeholder and request invite to Tuesday webex meeting

Hi there,

I'm the Airspace Officer for Derbyshire Soaring Club. We are a BHPA club of over 500 members flying paragliders and hang gliders from sites in the Peak District national park.

A large number of our members are focussed on cross country distance flying, and during the summer months on days with suitable weather conditions, attempt to make long distance flights, typically downwind. Our pilots are flying low performance unpowered gliders, typically without any EC capability and almost without exception also without airband radio.

Consequently, we're very interested in the TDA proposal and would be grateful for the opportunity to attend Tuesday's stakeholder webex session with a view to engaging with the ongoing process as a new stakeholder group.

Kind regards,

[REDACTED]

Archived: 26 March 2021 16:43:20

From: [UAS CDC-ACP](#)

Sent: 08 February 2021 18:17:00

To: [REDACTED]

Subject: UC FW: UC ACP-2020-100 Engagement Letter

Response requested: No

Sensitivity: Normal

Attachments:

[ACP-2020-100 SkyGuardian TDA Engagement Letter.pdf](#), [q9b-skyguardian-datasheet.pdf](#), [CP-2020-100 Stakeholder Engagement Response Form.docx](#)

As explained in earlier email.

[REDACTED]

Air Traffic Management Specialist
Defence UAS Capability Development Centre

[REDACTED]



Please consider the environment before printing this email.

From: [UAS CDC-ACP](#) <UAS CDC-ACP@qinetiq.com>

Sent: 29 January 2021 17:11

To: [UAS CDC-ACP](#) <UAS CDC-ACP@qinetiq.com>

Subject: UC ACP-2020-100 Engagement Letter

Dear Stakeholder,

Please find attached a copy of the engagement material relating to the proposed establishment of Temporary Danger Areas (TDAs) in the vicinities of RAF Waddington and RAF Lossiemouth during the Summer 2021. You are being sent this document as a potential stakeholder.

The document explains the rationale behind the proposal and contains details of the proposed TDAs. Should you wish to comment please do so by email. A Response Form is also attached in Word format which you might find useful for your feedback, but feel free to send your comments in any written form, directly in an email if you prefer. The address at the top of the attached letter will periodically be monitored for hard copy responses.

Email responses should be sent to:

The Airspace Change Manager at UAS CDC-ACP@qinetiq.com

Responses to the attached material should be mailed in time to reach the MOD by Friday 12 March 2021.

Live Online Engagement Opportunity

The MOD will be running a live online engagement meeting at 0900 – 1100hrs on Tuesday 9 February 2021. Your attendance is optional. An invitation will be sent to all stakeholders by 1700hrs on Friday 5 February 2021. During this online meeting the MOD will run through the proposal for the TDAs, with little additional information than enclosed at the attached, but any newly available up-to-date material will be shared. You are invited to ask questions about the proposal or to ask for clarification of the designs, which the MOD will endeavour to answer fully. **Please forward your questions in advance to the email address UAS CDC-ACP@qinetiq.com**

Please Note:

The MOD is also sponsoring ACP-2019-18
"Enabling Remotely Piloted Air System Operations Out of RAF Waddington"
This ACP is completely separate.

Regards,

[REDACTED]

Air Traffic Management Specialist
Defence UAS Capability Development Centre

[REDACTED]



Please consider the environment before printing this email.

Archived: 26 March 2021 16:44:32
From: [REDACTED]
Sent: 08 February 2021 20:00:40
To: UASCDC-ACP
Cc: [REDACTED]
Subject: RE: UC Airspace Change for Remotely Piloted Air System Operations Out of RAF Waddington
Sensitivity: Normal

Dear [REDACTED]

Thanks for your response to my original email, all but a bit late. I would be very interested in the development in this project as far as the airspace issues and TDA that would be fairly local to us. I would have been interested in the WebEx and taking part to gain any information that might be relevant to us but I can't see a link that would enable this. Maybe a bit late now but I would appreciate being kept informed of anything that may be of relevance to our airfield.

Many thanks

[REDACTED]



From: UASCDC-ACP [mailto:UASCDC-ACP@qinetiq.com]
Sent: 08 February 2021 18:16
To: [REDACTED] k
Subject: UC : UC Airspace Change for Remotely Piloted Air System Operations Out of RAF Waddington

Dear [REDACTED]

I apologise but I have only just found this email in a very obscure Spam folder on my work computer. It would appear to be quite old but I have added you to the stakeholder list for Protector operations at RAF Waddington nonetheless. I'm very confused as to why I have only just seen it!

However, I have also been recently tasked to engage regarding an Airspace Change for a Temporary Danger Area for Protector's prototype, SkyGuardian which will be flying in the UK this summer (long before Protector is due to fly in 2023). To that end I sent an email to aviation stakeholders on 29 January and another last week inviting them to a live Webex tomorrow morning. Whilst the Webex might be a little short notice I will forward the invitation in case you would like to attend. If you are unable I will be placing a summary of the meeting on the ACP portal and will provide a link to it later this week.

Again I apologise for the late notice, but I will send the engagement material out via a separate email too for your attention and potential comment.

[REDACTED]

Air Traffic Management Specialist
Defence UAS Capability Development Centre

[REDACTED]

UAS CDC

Please consider the environment before printing this email.

From: [REDACTED]
Sent: 01 May 2020 23:09
To: UASCDC-ACP <UASCDC-ACP@qinetiq.com>
Subject: Re: UC Airspace Change for Remotely Piloted Air System Operations Out of RAF Waddington

[REDACTED]

[REDACTED] Caunton Airfield were good enough to forward on to me your recent correspondence to them regarding the proposed airspace changes at RAF Waddington. I am the CFI and operate the flying school at Headon Airfield which is 14 miles to the North West of Waddington and consequently these changes could potentially have some impact on our operation. We train on Microflight type aircraft and have ten to fifteen students training in the Headon area at any one time. I would very much like to be kept informed of developments and consulted on any potential changes to airspace, particularly to the West of the river Trent.

Regards

[REDACTED]

Microflight Aviation School

[REDACTED]



From: UASCDC-ACP <UASCDC-ACP@qinetiq.com>
Sent: 28 April 2020 17:02
To: [REDACTED]
Subject: UC Airspace Change for Remotely Piloted Air System Operations Out of RAF Waddington



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Archived: 26 March 2021 18:44:51
From: UAS CDC-ACP
Sent: 08 February 2021 18:51:00
To: [REDACTED]
Subject: RE: UC ACP-2020-100 Engagement Letter
Sensitivity: Normal

[REDACTED]

Normal procedures will be in place for SAR assets to access the airspace. I have a table-top exercise with the MOD next week and will ensure this is discussed and feed back to you.

[REDACTED]

Air Traffic Management Specialist
Defence UAS Capability Development Centre



Please consider the environment before printing this email.

From: [REDACTED]
Sent: 04 February 2021 18:09
To: UAS CDC-ACP <UAS CDC-ACP@qinetiq.com>
Subject: RE: UC ACP-2020-100 Engagement Letter

RE: UC ACP-2020-100 Engagement Letter

[REDACTED]

I hope you are well?

With regards to the ACP, can I confirm ahead of the live forum, that SAR will have access to penetrate the TDA or suppress activity for SAROPs, both in and outside ATC hours of operation, and what will the latter means to do so be?

Regards

[REDACTED] | HM Coastguard
Aeronautical & Maritime Operations Controller
UK ARCC Development, Assurance & Plans Lead
TRIM Practitioner
Maritime & Coastguard Agency
National Maritime Operations Centre (NMOC) HM Coastguard
Unit 12 Kites Croft Business Park Fareham Hampshire PO14 4LW

Maritime & Coastguard Agency | HM Coastguard
Safer Lives, Safer Ships, Cleaner Seas



Archived: 26 March 2021 18:56:34
From: UASDCD-ACP
Sent: 08 February 2021 18:48:00
To: [REDACTED]
Subject: RE: UC ACP-2020-100 Engagement Letter
Sensitivity: Normal
Attachments:
image001.wmz

Many thanks for your email. There has been some comment about the statement, as you can imagine. Unfortunately, due to the short timescales involved I was keen to get the engagement material out and to provide a 6 week period of engagement. The formal request has not yet been made to Waddington or Lossiemouth, but is in hand. You will be advised as soon as an agreement has been made.

Air Traffic Management Specialist
Defence UAS Capability Development Centre



Please consider the environment before printing this email.

From: [REDACTED]@britishhelicopterassociation.org
Sent: 30 January 2021 12:17
To: UASDCD-ACP <UASDCD-ACP@qinetiq.com>
Cc: [REDACTED]
Subject: RE: UC ACP-2020-100 Engagement Letter

Dear Sir/Madam

I am somewhat perturbed to see the following statement in the document "It is anticipated that RAF Waddington and RAF Lossiemouth ATC will be manned at all times during SkyGuardian operations within the proposed TDAs." I would have expected a statement that the ATCs will be manned at anytime the TDAs are active. SAR, Police and HEMS helicopters may need access into the TDA to carry out their emergency response and they will not be able to do this with a closed ATC.

Yours
[REDACTED]
CEO British Helicopter Association

From: UASDCD-ACP
Sent: 29 January 2021 17:11
To: UASDCD-ACP <UASDCD-ACP@qinetiq.com>
Subject: UC ACP-2020-100 Engagement Letter

Dear Stakeholder,

Please find attached a copy of the engagement material relating to the proposed establishment of Temporary Danger Areas (TDAs) in the vicinities of RAF Waddington and RAF Lossiemouth during the Summer 2021. You are being sent this document as a potential stakeholder.

The document explains the rationale behind the proposal and contains details of the proposed TDAs. Should you wish to comment please do so by email. A Response Form is also attached in Word format which you might find useful for your feedback, but feel free to send your comments in any written form, directly in an email if you prefer. The address at the top of the attached letter will periodically be monitored for hard copy responses.

Email responses should be sent to:
The Airspace Change Manager at UASDCD-ACP@qinetiq.com

Responses to the attached material should be mailed in time to reach the MOD by Friday 12 March 2021.

Live Online Engagement Opportunity

The MOD will be running a live online engagement meeting at 0900 – 1100hrs on Tuesday 9 February 2021. Your attendance is optional. An invitation will be sent to all stakeholders by 1700hrs on Friday 5 February 2021. During this online meeting the MOD will run through the proposal for the TDAs, with little additional information than enclosed at the attached, but any newly available up-to-date material will be shared. You are invited to ask questions about the proposal or to ask for clarification of the designs, which the MOD will endeavour to answer fully. **Please forward your questions in advance to the email address UASDCD-ACP@qinetiq.com**

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"Enabling Remotely Piloted Air System Operations Out of RAF Waddington"
This ACP is completely separate.

Regards,

Air Traffic Management Specialist



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Archived: 26 March 2021 18:57:48
From: [REDACTED]
Sent: 09 February 2021 08:25:46
To: UASDCD-ACP
Subject: RE: UC FW: UC ACP-2020-100 Engagement Letter
Sensitivity: Normal
Attachments:
image004.emz

Thankyou Ali, unfortunately, I have prior commitments, however, I will review the ACPs and forward any comments.

Kind Regards

[REDACTED]
[REDACTED]
ANSP Safety & Compliance Manager
Birmingham Airport Limited
[REDACTED]

From: UASDCD-ACP <UASDCD-ACP@qinetiq.com>
Sent: 08 February 2021 18:33
To: [REDACTED]
Subject: UC FW: UC ACP-2020-100 Engagement Letter

I have been trying to contact you for a week or so but your emails kept bouncing back. Scrutiny of the message has revealed that the address supplied by the CAA had a rogue "." Which was probably the cause. Trying again in haste.

I am sending some ACP engagement material as you will see. And an invitation to a Webex which is unfortunately taking place tomorrow.

I have cc'd [REDACTED] as per the NATMAC list provided so I hope that the message got through somehow.

Air Traffic Management Specialist
Defence UAS Capability Development Centre



 Please consider the environment before printing this email.

From: UASDCD-ACP <UASDCD-ACP@qinetiq.com>
Sent: 29 January 2021 17:11
To: UASDCD-ACP <UASDCD-ACP@qinetiq.com>
Subject: UC ACP-2020-100 Engagement Letter

Dear Stakeholder,

Please find attached a copy of the engagement material relating to the proposed establishment of Temporary Danger Areas (TDAs) in the vicinities of RAF Waddington and RAF Lossiemouth during the Summer 2021. You are being sent this document as a potential stakeholder.

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Email responses should be sent to:

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Please Note:
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"Enabling Remotely Piloted Air System Operations Out of RAF Waddington"
This ACP is completely separate.

Regards,


Air Traffic Management Specialist
Defence UAS Capability Development Centre



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BIRMINGHAM AIRPORT LIMITED
REGISTERED IN ENGLAND & WALES No: 2078273
REGISTERED OFFICE: BIRMINGHAM AIRPORT BIRMINGHAM B26 3QJ ENGLAND

Archived: 26 March 2021 16:53:08
From: [UAS CDC-ACP](#)
Sent: 16 February 2021 19:15:00
To: [REDACTED]
Subject: RE: UC ACP-2021-100 - SkyGuardian TDA Webex
Sensitivity: Normal

[REDACTED]

Thank you for your response to the MOD's request for feedback on its engagement for ACP-2020-100 (SkyGuardian TDAs for Summer 2021). Round-robins are about to be sent out and there will be more updates as the days progress.

I will keep you advised on any potential developments with the design and operation of the TDAs.

Regards,

[REDACTED]

ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

[REDACTED]



Please consider the environment before printing this email.

From: [REDACTED]
Sent: 09 February 2021 11:41
To: Green Alison <AGREEN6@qinetiq.com>; UAS CDC-ACP <UAS CDC-ACP@qinetiq.com>
Subject: Re: UC ACP-2021-100 - SkyGuardian TDA Webex

Hi Ali, Thank you for hosting an informative meeting that touched on many aspects of airspace requirements and SkyGuardian/Protector operations. If you could, in time, send out a 'round-robin' e-mail with a link to today's 'chat/questions', that would be most welcome. Looking forward to the next Webex.

Regards,

[REDACTED]

Caunton Flying Club Representative

On 05 February 2021 at 17:30 Green Alison <AGREEN6@qinetiq.com> wrote:

Dear aviation stakeholder,

This is your invitation to join the Webex for ACP-2020-100 (SkyGuardian TDAs). Please find below details of how to join the Webex, either online or by telephone. You will be able to join from 0845hrs on the day. It may be worth trying to join a little early in order to avoid last minute glitches and missing the beginning of the meeting. You will be automatically muted on entry. The meeting will start promptly at 0900hrs.

Please ensure any questions you would like addressing during the meeting are forwarded in writing to UAS CDC-ACP@qinetiq.com by midday on Monday 8 Feb 2021.

The draft agenda for the meeting will be sent out with an update on Monday afternoon.

[REDACTED]

ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

[REDACTED]



Please consider the environment before printing this email.

-- Do not delete or change any of the following text. --

When it's time, join your Webex meeting here.

[Join meeting](#)

More ways to join:

Join from the meeting link

<https://qinetiquk.webex.com/join?MTID=m491168eb932d55fcfd23c4320ec7a5e>

Join by meeting number

Meeting number (access code): 181 653 2256

Meeting password: 2pSQWWx2NbY9 (27779992 from phones and video systems)

Tap to join from a mobile device (attendees only)

+44-20-7660-8149, 1816532256#27779992# United Kingdom Toll

Some mobile devices may ask attendees to enter a numeric meeting password.

Join by phone

+44-20-7660-8149 United Kingdom Toll

[Global call-in numbers](#)

Join from a video system or application

Dial [1816532256@qinetiquk.webex.com](tel:1816532256)

You can also dial 62.109.219.4 and enter your meeting number.

Join using Microsoft Lync or Microsoft Skype for Business

Dial 1816532256.qinetiuk@lync.webex.com

If you are a host, [click here](#) to view host information.

Need help? Go to <https://help.webex.com>

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Archived: 26 March 2021 16:52:16
From: [REDACTED]
Sent: 09 February 2021 11:41:45
To: Green Alison; UASCDC-ACP
Subject: Re: UC ACP-2021-100 - SkyGuardian TDA Webex
Sensitivity: Normal

[REDACTED], Thank you for hosting an informative meeting that touched on many aspects of airspace requirements and SkyGuardian/Protector operations. If you could, in time, send out a 'round-robin' e-mail with a link to today's 'chat/questions', that would be most welcome. Looking forward to the next Webex.

Regards,

[REDACTED]
Caunton Flying Club Representative

On 05 February 2021 at 17:30 Green Alison <AGREEN6@qinetiq.com> wrote:

Dear aviation stakeholder,

This is your invitation to join the Webex for ACP-2020-100 (SkyGuardian TDAs). Please find below details of how to join the Webex, either online or by telephone. You will be able to join from 0845hrs on the day. It may be worth trying to join a little early in order to avoid last minute glitches and missing the beginning of the meeting. You will be automatically muted on entry. The meeting will start promptly at 0900hrs.

Please ensure any questions you would like addressing during the meeting are forwarded in writing to UASCDC-ACP@qinetiq.com by midday on Monday 8 Feb 2021.

The draft agenda for the meeting will be sent out with an update on Monday afternoon.

[REDACTED]
ATM Specialist and ACP Manager
Defence UAS Capability Development Centre



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When it's time, join your Webex meeting here.

[Join meeting](#)

More ways to join:

Join from the meeting link

<https://qinetiq.webex.com/join?MTID=m491168eb932d55cfbd23c4320ec7a5e>

Join by meeting number

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Archived: 26 March 2021 16:55:43
From: UAS CDC-ACP
Sent: 16 February 2021 19:10:00
To: [REDACTED]
Subject: RE: UC ACP-2020-100
Sensitivity: Normal

Dear [REDACTED]

Thank you for your response to the MOD's request for feedback on its engagement for ACP-2020-100 (SkyGuardian TDAs for Summer 2021). Your comments have been noted and will be carried forward for the MOD's analysis.

I will keep you advised on any potential developments with the design and operation of the TDAs.

Regards,

[REDACTED]
ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Email: UAS CDC-ACP@qinetiq.com



 Please consider the environment before printing this email.

From: [REDACTED]
Sent: 12 February 2021 20:03
To: UAS CDC-ACP <UAS CDC-ACP@qinetiq.com>
Subject: UC ACP-2020-100

Dear Sirs,

I am writing to object to the change in airspace and introduction of Temporary Danger Areas around Waddington.

As a pilot based at a strip near Scunthorpe I frequently fly in the area now to be largely shut off from casual use. The size of TDA is huge and seems disproportionate given the performance of the planned UAVs.

A number of strip such as Temple Bruer and South Hykeham will be made inaccessible if your proposal goes ahead.

I suggest that some more thought is used to reduce the TDA to a more realistic size,

Regards,

[REDACTED]

Archived: 26 March 2021 16:59:16

From: UAS CDC-ACP

Sent: 16 February 2021 19:06:00

To: [REDACTED]

Subject: RE: UC ACP - 2020- 100. Waddington and Lossiemouth

Sensitivity: Normal

[REDACTED]

Thank you for your response to the MOD's request for feedback on its engagement for ACP-2020-100 (SkyGuardian TDAs for Summer 2021). Your comments have been noted and will be carried forward for the MOD's analysis.

I will keep you advised on any potential developments with the design and operation of the TDAs.

Regards,

[REDACTED]

ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091
Email: UAS CDC-ACP@qinetiq.com



 Please consider the environment before printing this email.

From: [REDACTED]

Sent: 13 February 2021 14:14

To: UAS CDC-ACP <UAS CDC-ACP@qinetiq.com>

Subject: ACP - 2020- 100. Waddington and Lossiemouth

Dear Sir, as a general aviation pilot I consider the above to be an unnecessary restriction to Class G airspace and object strongly.

Yours faithfully

[REDACTED]

Archived: 26 March 2021 14:06:50
From: [REDACTED]
Sent: 26 March 2021 14:06:00
To: [REDACTED]
Subject: RE: UC ACP - 2021-100
Sensitivity: Normal

[REDACTED]

I am writing to let you know that the MOD has been able to update the size of the proposed TDA at RAF Waddington associated with ACP-2020-100 for SkyGuardian operations in the UK this summer.. The minimum airspace requirement associated with the preferred flight profiles has become better understood and so in conjunction with the Control Authority, Waddington ATC, some significant reduction in TDA size has been affected.

Of particular interest to you and the operators at Temple Bruer, the proposed TDA at RAF Waddington will be reduced laterally to a 5NM radius circle centred on Waddington's main runway. The maximum upper limit remains FL100 pending CAA approvals for the activity. Procedures will be in place to enable Temple Bruer operations to continue with minimum impact. Waddington ATC is working on these now and will be in touch in due course if the TDA submission is successful.

The MOD expects to submit its proposal later today after which all relevant documents will be uploaded to the CAA ACP portal. I will advise all other stakeholders on my list with an interest in Temple Bruer similarly today.

Regards,

[REDACTED]

ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091
[REDACTED]
Email: UASDCD-ACP@qinetiq.com

Please consider the environment before printing this email.

-----Original Message-----

From: UASDCD-ACP
Sent: 25 March 2021 16:37
To: [REDACTED]
Subject: RE: UC ACP - 2021-100

[REDACTED]

Tidying up my inbox again and I've re-read my last email. I was wrong - had number blindness! This is the official line. I am submitting the targeted engagement tomorrow and anticipate a decision by 23 April 21. Sorry if I confused.

- CAPI616 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

[REDACTED]

ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091
[REDACTED]
Email: UASDCD-ACP@qinetiq.com

Please consider the environment before printing this email.

-----Original Message-----

From: UASDCD-ACP
Sent: 17 March 2021 19:03
To: [REDACTED]
Subject: RE: UC ACP - 2021-100

[REDACTED]

The ACP process for a TDA is markedly different from the full 7-stage ACP process for a permanent change. In effect the sponsor is required to complete Stages 1 and 2 of the process, with Stage 2 being a targeted engagement (aviation stakeholders) only. There are no Stages 3, 4 or 5.

So the MOD will submit its application on 26 March and the CAA will publish its decision on 16 April. If successful, the airspace will be implemented on 18 June, but will not be activated until 1 July at the earliest.

I am hoping to be able to share the flying schedule by the end of March too.

[REDACTED]

ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 [REDACTED]
[REDACTED]

Please consider the environment before printing this email.

-----Original Message-----

From: [REDACTED]
Sent: 13 March 2021 09:25
To: UASDCD-ACP <UASDCD-ACP@qinetiq.com>
Subject: Re: UC ACP - 2021-100

[REDACTED]

Thank you for the update, I'm hoping your discussions with Waddington will enable a mutually practicable solution. I understand submissions by stakeholders were to be in by 12th March but I don't seem to have information on the timing of subsequent stages of the APC, perhaps you could let me have this information. Kind regards. [REDACTED]

Sent from my iPad

> On 8 Mar 2021, at 15:41, UASDCD-ACP <UASDCD-ACP@qinetiq.com> wrote:

> [REDACTED]
>
> A quick update. I am in direct contact with the ATCU at Waddington this week to explore the suggestions you have mentioned in both of your emails. I know you have a good relationship with Cranwell ATC, but I thought I would let you know we are in dialogue on this, especially as the deadline for feedback is approaching. I will send an update later this week to all of the Temple Bruer users who have been in touch and provided useful comment.
>

> Regards,
>
> [REDACTED]
>
> ATM Specialist and ACP Manager
> Defence UAS Capability Development Centre
>
> Telephone No: 01980 663091
> [REDACTED]
> Email: UASDCD-ACP@qinetiq.com
>
>

> Please consider the environment before printing this email.
>
>

> -----Original Message-----

> From: [REDACTED]
> Sent: 09 February 2021 12:46
> To: [REDACTED]
> Subject: ACP - 2021-100
>
> [REDACTED]

> Thank you for organising and hosting today's Webinar.
> I represent 19 pilots and owners who operate 15 aircraft based at Temple Bruer.
> We normally have more than 500 movements per year with the larger proportion of these occurring between April and September.
> You will receive my formal feedback submission in the next few days but in the meantime can I personally ask you to give very serious consideration to a modification of the proposed design to provide access to Temple Bruer during the TDA activation.
> Our circuit height is 500 ft and we are regularly asked by Cranwell or Waddington ATCS to remain below 1000ft as we depart or recover through their MATZs to avoid disruption to their traffic.
> If the TDA base could be stepped up to 1500 or even 1000ft at its SE corner we could operate without increasing workload to ourselves and the providers of DACS.
> Alternatively, a low level entry and departure corridor could achieve the same result.
> The SkyGuardian trial offers an opportunity to demonstrate that our operations can dovetail with Protector when the permanent airspace requirements are introduced.
> Kind Regards, [REDACTED]
> Sent from my iPad
>

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Archived: 26 March 2021 14:00:56
From: UASDCD-ACP
Sent: 16 February 2021 19:14:00
To: [REDACTED]
Subject: RE: UC ACP-2020-100 Feedback
Sensitivity: Normal

[REDACTED],

Thank you for your response to the MOD's request for feedback on its engagement for ACP-2020-100 (SkyGuardian TDAs for Summer 2021). Your comments have been noted and will be carried forward for the MOD's analysis.

I will keep you advised on any potential developments with the design and operation of the TDAs.

Regards,

[REDACTED]
ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091
Email: UASDCD-ACP@qinetiq.com

Please consider the environment before printing this email.

-----Original Message-----

From: [REDACTED]
Sent: 09 February 2021 21:24
To: UASDCD-ACP <UASDCD-ACP@qinetiq.com>
Subject: ACP-2020-100 Feedback

> Name - [REDACTED]

> Representing - Temple Bruer Airfield Aircraft Owners and Pilots.

- > Temple Bruer Airfield has been in operation for nearly 40 years and currently, 15 aircraft operated by 19 pilots are based here.
- > The whole operation represents a very significant financial investment on the part of those 19 and the Airfield Owner.
- > The Airfield is open 365 days per year and movements in a typical year are well in excess of 500.
- > Typically, flying activity increases between May and October coincident with generally more favourable conditions but a significant number of flights occur on fine days throughout the rest of the year. Covid Restrictions have temporarily reduced activity recently.
- > Whilst recognising the necessity for Airspace Change to enable SkyGuardian Trials to proceed, we are disappointed to discover that we are positioned within the proposed TDA and must protest in the strongest terms against the potential curtailment of our activities and loss of amenity during the busiest period of the year.
- > We have good relationships with ATC services at Cranwell and Waddington, and as a consequence, are able to integrate our activities without conflict.
- > Circuit height at Temple Bruer is 500ft and when requested, we depart or recover through sections of the adjacent MATZs at below 1000ft QFE to avoid disruption to Cranwell or Waddington traffic.
- The departure and approach profiles of SkyGuardian, as defined at the recent ACP Webinar appear to indicate that the proposed TDA design is unnecessarily large.
- > If the design of the TDA was modified to enable departure and recovery at low level from Temple Bruer without the necessity, uncertainty and the workload of using the Danger Area Crossing Service, our operations could continue throughout the trial period without interruption.
- > This could be achieved by stepping the profile of the TDA at its Southern edge such that it operates from 1000ft and above in the same way as most MATZs handle.
- > Alternatively, a Temple Bruer Low Level Arrival and Departure corridor could be designed as has been established in controlled airspace elsewhere in the U.K.
- > If one of these or any other modification to the design of the TDA achieving the same aim were implemented, our operations and the trials could continue without interference.
- > A number of the aircraft based at Temple Bruer are equipped with Mode S transponders and ADSB out capability. If we can be of any help in tests or activities to establish interoperability between the SkyGuardian and small GA aircraft we are very willing to become involved.
- >
- > Kind Regards.. [REDACTED]

Sent from my iPad

Archived: 26 March 2021 14:36:04
From: UAS CDC-ACP
Sent: 26 March 2021 14:27:00
To: [REDACTED]
Subject: RE: UC ACP-2020-100 Objection
Sensitivity: Normal

Dear [REDACTED],

I am writing to let you know that the MOD has been able to update the size of the proposed TDA at RAF Waddington associated with ACP-2020-100 for SkyGuardian operations in the UK this summer. The minimum airspace requirement associated with the preferred flight profiles has become better understood and so in conjunction with the Control Authority, Waddington ATC, some significant reduction in TDA size has been affected.

Of particular interest to you and the operators at Temple Bruer, the proposed TDA at RAF Waddington will be reduced laterally to a 5NM radius circle centred on Waddington's main runway. The maximum upper limit remains FL100 pending CAA approvals for the activity. Procedures will be in place to enable Temple Bruer operations to continue with minimum impact. Waddington ATC is working on these now and will be in touch in due course if the TDA submission is successful. I will advise all other stakeholders on my list with an interest in Temple Bruer similarly today.

Similarly the TDA at Lossiemouth has been revised in order to allow activity at Easterton to continue unhindered.

The MOD expects to submit its proposal later today after which all relevant documents will be uploaded to the CAA ACP portal.

Regards,

[REDACTED]
ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091
[REDACTED]
Email: UAS CDC-ACP@qinetiq.com



Please consider the environment before printing this email.

From: UAS CDC-ACP
Sent: 08 March 2021 13:07
To: [REDACTED]
Subject: RE: UC ACP-2020-100 Objection

Thank you for your email and feedback attached. The change sponsor has been working closely with RAF Waddington and RAF Lossiemouth and has secured a Danger Area Crossing Service for the duration of the TDA activations. Options to adjust the size of both Areas A & B are also being assessed. An update should be forthcoming by the end of this week.

I appreciate the impact that the TDAs may have on operations at both Temple Bruer and Easterton; the MOD is certainly looking at means to minimise the impact at both locations.

[REDACTED]
ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091
[REDACTED]
Email: UAS CDC-ACP@qinetiq.com



Please consider the environment before printing this email.

From: [REDACTED]
Sent: 23 February 2021 15:06
To: UAS CDC-ACP <UAS CDC-ACP@qinetiq.com>
Subject: ACP-2020-100 Objection

Good afternoon.

Please see attached stakeholder response form which details my objection to the ACP in its current form due to the disproportionate volume of airspace in excess of what is required to safely achieve the mission.

I do hope you can amend and provide safe segregation whilst reducing the impact on other airspace users like those of us who operate into Temple Bruer.

Very best regards,

[REDACTED]

ACP-2020-100 Response Form

Name	[REDACTED]
Representing	GA private pilot - regular visitor to Temple Bruer, occasional visitor to Easterton, and user of TDA airspace
Address (including postcode if possible)	[REDACTED] [REDACTED] [REDACTED]

Objection - on the basis of disproportionate volume of airspace to achieve mission

I object to the ACP in its current form.

MQ-9 is undoubtedly an important new capability for the RAF. However, the ACP proposes a huge TDA, 18x10 miles, SFC-10,000ft that I believe is excessive and far beyond what is necessary to safely achieve the objective.

The TPE331 powered MQ-9 I am sure, even with external stores, has the climb performance to enable Area A to have a stepped design that does not require the TDA to be down to surface some 9 miles after departure. Further, I believe (and your current design supports the notion) that the MQ-9 will employ a glide path in excess of the standard 3 degrees. Again that will facilitate a stepped design on runway heading much like existing MATZ stubs.

With the MQ-9 having an autoland capability, I can't see any justification for the TDA to extend 5 miles from the runway laterally to the surface. The MQ-9 certainly doesn't need to do circuits.

As a regular user of Temple Bruer, even with a DACS, this would add an additional layer of planning / permission that is operationally unnecessary. From the RAF's perspective, the TDA also covers the Cranwell circuit as well as Cranwell North gliding field and Cranwell air systems will require explicit clearance to operate when the TDA is active. With a more proportionate and intelligent airspace design, this burden can be eliminated.

I welcome the statement that the TDA will only be active when operationally necessary and a DACS provided. Activation should be promulgated by Notam at least 24hr in advance and it should be mandatory that Waddington ATC should be available for the full duration. Any refusal to enter the Area A TDA should be purely for the very limited periods when the MQ-9 is departing and landing and not beyond.

CAP 1616 principles require that the TDA's should employ the minimum volume of airspace necessary to achieve the aim. I believe the ACP in its current form breaches that principle, primarily in Area A.

If Area A can be narrowed and stepped in altitude to remove Temple Bruer then I would no longer object. The amended design should be also be applied to Lossiemouth where it also impacts Easterton users unnecessarily (a field I also visit).

With 2 sqns of MQ-9 planned I believe it vital to get the design right from the outset and a more proportionate design will ensure maximum support from the GA community and beyond.

Archived: 26 March 2021 14:21:03
From: UASDCD-ACP
Sent: 26 March 2021 14:20:00
To: [REDACTED]
Subject: RE: UC Waddington TDA
Sensitivity: Normal

Dear [REDACTED]

I am writing to let you know that the MOD has been able to update the size of the proposed TDA at RAF Waddington associated with ACP-2020-100 for SkyGuardian operations in the UK this summer. The minimum airspace requirement associated with the preferred flight profiles has become better understood and so in conjunction with the Control Authority, Waddington ATC, some significant reduction in TDA size has been affected.

Of particular interest to you and the operators at Temple Bruer, the proposed TDA at RAF Waddington will be reduced laterally to a 5NM radius circle centred on Waddington's main runway. The maximum upper limit remains FL100 pending CAA approvals for the activity. Procedures will be in place to enable Temple Bruer operations to continue with minimum impact. Waddington ATC is working on these now and will be in touch in due course if the TDA submission is successful.

The MOD expects to submit its proposal later today after which all relevant documents will be uploaded to the CAA ACP portal. I will advise all other stakeholders on my list with an interest in Temple Bruer similarly today.

Regards,

[REDACTED]
ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091
[REDACTED]
Email: UASDCD-ACP@qinetiq.com

Please consider the environment before printing this email.

-----Original Message-----
From: UASDCD-ACP
Sent: 16 February 2021 19:08
To: [REDACTED]
Subject: RE: UC Waddington TDA

[REDACTED]
Thank you for your response to the MOD's request for feedback on its engagement for ACP-2020-100 (SkyGuardian TDAs for Summer 2021). Your comments have been noted and will be carried forward for the MOD's analysis.

I will keep you advised on any potential developments with the design and operation of the TDAs.

Regards,

[REDACTED]
ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091
Email: UASDCD-ACP@qinetiq.com

Please consider the environment before printing this email.

-----Original Message-----
From: [REDACTED]
Sent: 13 February 2021 11:30
To: UASDCD-ACP <UASDCD-ACP@qinetiq.com>
Subject: Waddington TDA

To: UASDCD-ACP UASDCD-ACP@qinetiq.com

From: [REDACTED]

13th February 2021

Waddington Drone operation

Dear Sirs,

I am seriously concerned about the quite rapid reduction of available airspace for general aviation in the UK, I get the impression that the "powers that be" simply announce these huge areas without a thought to whom it will affect.

With reference to the situation at Waddington I have been flying GA from Temple Bruer for the last 25 years and to date I have found both Waddington and Cranwell ATC to be very helpful and supportive when I consider that both these units are among the more important units in the UK. I am sure that with a little thought and consideration these proposals could be made to work.

I would suggest that while the TDA is in force, the pattern of the restricted area be adjusted to allow access to and from the East and West with a limit of 800 ft on the Waddington QFE.

Yours faithfully

[REDACTED]

Archived: 26 March 2021 20:15:46

From: UAS CDC-ACP

Sent: 16 February 2021 19:06:00

To: [REDACTED]

Subject: RE: UC SKYGUARDIAN: AIRSPACE CHANGE PROPOSAL

Sensitivity: Normal

Dear [REDACTED]

Thank you for your response to the MOD's request for feedback on its engagement for ACP-2020-100 (SkyGuardian TDAs for Summer 2021). Your comments have been noted and will be carried forward for the MOD's analysis.

I will keep you advised on any potential developments with the design and operation of the TDAs.

Regards,

[REDACTED]

ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091
Email: UAS CDC-ACP@inetlq.com



Please consider the environment before printing this email.

From: [REDACTED]

Sent: 13 February 2021 16:11

To: UAS CDC-ACP <UAS CDC-ACP@qinetiq.com>

Subject: SKYGUARDIAN: AIRSPACE CHANGE PROPOSAL

ACP-2020-100 Response Form

OFFICIAL

Name	[REDACTED]
Representing	[REDACTED]
Address (including postcode if possible)	[REDACTED]

Feedback:

I have one comment to make regarding the proposal to establish the TDA's later this year and it is to suggest that on the days when the TDA's at Waddington and Lossiemouth are notified to be active each airfield establishes a continuous ATIS broadcast on the VHF band which advises the activity status of the TDAs. In this way all airspace users will be kept fully up to date as to the exact status of the TDAs thus safety will be enhanced, controller workload reduced and disruption to other airspace users minimised. Details of the TDA ATIS broadcasts could be included in the NOTAMs which advise the TDA activity.

Also, I do have a question which i'm sure that many active GA pilots will want to know and that is to how the SkyGuardians' onboard "Due Regard Radar" performs in the detection of light aircraft which are constructed of wood and fabric?

Finally, have the residents of Lincoln and Elgin and surrounds been consulted as to how they feel about being regularly overflown during the trials of a large aircraft which is bereft of on-board pilots?.....!!

Archived: 26 March 2021 14:41:30
From: UAS CDC-ACP
Sent: 26 March 2021 14:40:00
To: [REDACTED]
Subject: RE: UC Comment on the RAF Waddington ACP
Sensitivity: Normal

Dear [REDACTED]

I am writing to let you know that the MOD has been able to update the size of the proposed TDA at RAF Waddington associated with ACP-2020-100 for SkyGuardian operations in the UK this summer. The minimum airspace requirement associated with the preferred flight profiles has become better understood and so in conjunction with the Control Authority, Waddington ATC, some significant reduction in TDA size has been effected.

Of particular interest to you and the operators at Temple Bruer, the proposed TDA at RAF Waddington will be reduced laterally to a 5NM radius circle centred on Waddington's main runway. The maximum upper limit remains FL100 pending CAA approvals for the activity. Procedures will be in place to enable Temple Bruer operations to continue with minimum impact. Waddington ATC is working on these now and will be in touch in due course if the TDA submission is successful.

The MOD expects to submit its proposal later today after which all relevant documents will be uploaded to the CAA ACP portal. I will advise all other stakeholders on my list with an interest in Temple Bruer similarly today.

Regards,

[REDACTED]

ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

[REDACTED]
[\[REDACTED\]@qinetiq.com](mailto:[REDACTED]@qinetiq.com)



Please consider the environment before printing this email.

From: UAS CDC-ACP
Sent: 17 March 2021 18:52
To: [REDACTED]
Subject: RE: UC Comment on the RAF Waddington ACP

Dear [REDACTED]

Thank you for your email and feedback on the MOD engagement material for ACP-2020-100. Your comments have been noted and are aligned, as you would expect, with the majority of feedback received from numerous operators from Temple Bruer. I can advise that the change sponsor has worked hard to find ways in which to minimise the impact on other airspace users and has been able to significantly reduce the size of the TDA around Waddington that the MOD intends to submit to the CAA on 26 March for consideration. In addition the ATC units at Cranwell and Waddington have been in close communication to ensure that Temple Bruer will feel little impact of the TDA.

Whilst I am working hard to meet the March deadline, I would hope to be able to update all stakeholders prior to submission on the TDA designs, albeit the update may be somewhat brief!

[REDACTED]

ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091
[REDACTED]
Email: UAS CDC-ACP@qinetiq.com



Please consider the environment before printing this email.

From: [REDACTED]
Sent: 12 March 2021 12:16
To: UAS CDC-ACP <UAS CDC-ACP@qinetiq.com>
Subject: Comment on the RAF Waddington ACP

Dear Sir,

Please find attached comment on ACP 2020-100 for your consideration.

Regards,

[REDACTED]

ACP-2020-100 Response Form

Name	[REDACTED]
Representing	Myself – I fly a light aircraft out of Temple Bruer strip
Address (including postcode if possible)	[REDACTED] [REDACTED] [REDACTED]

Feedback:

Dear Sir,

I have followed the proposed airspace change around RAF Waddington and would like to submit a comment for consideration.

I can fully understand the reasons and requirement for some sort of airspace restrictions – I am current military and, indeed, train some of the aircrew who will progress to be RPAS pilots.

I operate a vintage aircraft which has no electrical system out of Temple Bruer airstrip. I only fly day VFR in good weather conditions. In a normal year I would probably fly about 20 sorties out of Temple Bruer during the summer months, mostly at weekends or occasionally on weekdays after about 1700L. Remaining clear of military traffic from Waddington, Cranwell and Coningsby has never been an issue in the past.

For your Airspace Change I would like to see some form of simple VFR corridor that allows access in/out of Temple Bruer. A simple solution would be straight in/out along the 08/26 directions from Temple Bruer and say up to 800ft, to allow flight at 500ft agl with a small margin above. I would also like to be able to co-ordinate such activity by a phone call to RAF Waddington. If no answer to a phone

call, the assumption outside of normal working hours should be that the airspace is not being used for RPAS Operations and it is safe to proceed on a VFR procedure. I do not think that this is beyond the Please would you consider such arrangements in your next proposal?

Thank you.

Feedback on the proposed change and what is important to you should be sent to **The Airspace Change Manager** at UASCDC-ACP@qinetiq.com

Archived: 26 March 2021 17:17:37

From: UASDCD-ACP

Sent: 26 March 2021 17:16:00

To: [REDACTED]

Subject: RE: UC ACP-2020-100 Skyguardian TDA Engagement Letter. pdf

Sensitivity: Normal

[REDACTED]

I am writing to let you know that the MOD has been able to update the size of the proposed TDA at RAF Waddington associated with ACP-2020-100 for SkyGuardian operations in the UK this summer. The minimum airspace requirement associated with the preferred flight profiles has become better understood and so in conjunction with the Control Authority Waddington ATC, some significant reduction in TDA size has been affected.

Of particular interest, the proposed TDA at RAF Waddington will be reduced laterally to a 5NM radius circle centred on Waddington's main runway. The maximum upper limit remains FL100 pending CAA approvals for the activity. Procedures will be in place to enable GA operations to continue with minimum impact.

The MOD expects to submit its proposal later today after which all relevant documents will be uploaded to the CAA ACP portal.

Regards,

[REDACTED]

ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091

Email: UASDCD-ACP@qinetiq.com

Please consider the environment before printing this email.

-----Original Message-----

From: UASDCD-ACP

Sent: 16 February 2021 19:26

To: [REDACTED]

Subject: RE: UC ACP-2020-100 Skyguardian TDA Engagement Letter. pdf

Dear [REDACTED],

Thank you for your response to the MOD's request for feedback on its engagement for ACP-2020-100 (SkyGuardian TDAs for Summer 2021). Please accept this email as a holding email. Your comments have been noted and will be carried forward for the MOD's analysis. I will get back to you in due course.

I will keep you advised on any potential developments with the design and operation of the TDAs.

Regards,

[REDACTED]

ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091

Email: UASDCD-ACP@qinetiq.com

Please consider the environment before printing this email.

-----Original Message-----

From: [REDACTED]

Sent: 31 January 2021 16:22

To: UASDCD-ACP <UASDCD-ACP@qinetiq.com>

Cc: lyn4@btinternet.com; pete@gliding.co.uk; Phil Sturley <philipsturley@yahoo.co.uk>

Subject: ACP-2020-100 Skyguardian TDA Engagement Letter. pdf

Sirs,

Reference the above, given that the boundaries of the "airspace" for this proposal swamp the ATZ's of Scampton, Waddington and Cranwell, why is it not possible to orientate the whole space to fall, almost completely, within the combined MATZ's? By rotating the whole shape anti-clockwise this could easily be achieved, thereby minimising any loss of airspace to careful GA users.

Regards,

Sent from my iPhone [REDACTED]

Archived: 26 March 2021 14:33:06
From: UAS CDC-ACP
Sent: 26 March 2021 14:19:00
To: [REDACTED]
Subject: RE: UC RE:WADDINGTON!!!TDA - Summer 2021
Sensitivity: Normal

Dear [REDACTED],

I am writing to let you know that the MOD has been able to update the size of the proposed TDA at RAF Waddington associated with ACP-2020-100 for SkyGuardian operations in the UK this summer. The minimum airspace requirement associated with the preferred flight profiles has become better understood and so in conjunction with the Control Authority, Waddington ATC, some significant reduction in TDA size has been affected.

Of particular interest to you and the operators at Temple Bruer, the proposed TDA at RAF Waddington will be reduced laterally to a 5NM radius circle centred on Waddington's main runway. The maximum upper limit remains FL100 pending CAA approvals for the activity. Procedures will be in place to enable Temple Bruer operations to continue with minimum impact. Waddington ATC is working on these now and will be in touch in due course if the TDA submission is successful.

The MOD expects to submit its proposal later today after which all relevant documents will be uploaded to the CAA ACP portal. I will advise all other stakeholders on my list with an interest in Temple Bruer similarly today.

Regards,

[REDACTED]
ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091
[REDACTED]
Email: UAS CDC-ACP@qinetiq.com



Please consider the environment before printing this email.

From: UAS CDC-ACP
Sent: 16 February 2021 19:09
[REDACTED]
Subject: UC RE:WADDINGTON!!!TDA - Summer 2021

[REDACTED]
Thank you for your response to the MOD's request for feedback on its engagement for ACP-2020-100 (SkyGuardian TDAs for Summer 2021). Your comments have been noted and will be carried forward for the MOD's analysis.

I will keep you advised on any potential developments with the design and operation of the TDAs.

Regards,

[REDACTED]
ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091
[REDACTED]
Email: UAS CDC-ACP@qinetiq.com



Please consider the environment before printing this email.

[REDACTED]
From: [REDACTED]
Sent: 12 February 2021 21:20
To: UAS CDC-ACP <UAS CDC-ACP@qinetiq.com>
Subject: Brize Norton TDA - Summer 2021

Dear Sirs,

I have been made aware of the proposed TDA at Waddington later this year, in order to conduct SkyGuardian trials. I would like to put forward the following points:

- I am the sole owner/operator of a light aircraft at Temple Bruer airfield within the proposed Waddington TDA and will therefore be affected by this.
- I am not against the TDA proposal and quite the opposite, I support the MOD in its work to maintain UK security and understand that these trials form a part of that effort.
- I welcome the news that there will be a DACS available from Waddington whilst the TDA is active.

I invite the CAA and MOD to note:

- Covid and the various lockdowns that have seen GA grounded for significant periods of time has resulted in many of us flying far fewer hours than we would wish to remain current and to make best use of our aircraft. Any further restrictions on those of us at Temple Bruer during the best flying months this summer will continue to compound our low hours of late. At best this is punitive and at worst a safety concern.

- I pay a minimum of £5000 a year to keep my aircraft ready and available to fly (£1000 insurance, £2000 maintenance and £2000 hangarage). Any grounding that I experience does translate into a loss of hundreds of pounds each month to me. Although most of my flying does occur on the weekends at present, I do use the aircraft during the week, especially as an alternative means to commute and during my holiday time.

- Most (perhaps all) of the residents at Temple Bruer have taken up the CAA's excellent scheme to encourage the purchase of carry on EC devices. I have a SkyEcho II on my aircraft now and so this will assist with deconfliction with the SkyGuardian when it is flying.

Therefore I would like to propose that:

- In order that Temple Bruer residents can continue to fly at all times, even when the TDA is active, an agreed zone departure and recovery route must be established. I suggest that this sees traffic exit to the east as standard between Digby and Ruskington from surface to 2000ft AGL with traffic departing at 1000ft and recovering at 2000ft for overhead join in order to deconflict aircraft who might be head to head whilst using a potentially narrow corridor. If a different routing was needed then residents could call Waddington before departure and book a non-standard departure. All traffic would be two-way with Waddington before switching to Safetycom. There are many examples of this sort of thing all over the country. One such is Roughay Farm vs Solent Zone.

In sum: I am supportive of this TDA but I do want a solution found that will not result in any periods of grounding for residents of Temple Bruer, be it weekday or weekend.

Yours faithfully,

[REDACTED]

Archived: 26 March 2021 14:17:37

From: UASDCD-ACP

Sent: 26 March 2021 14:16:00

Subject: RE: UC Waddington Drone operation.

Sensitivity: Normal

[REDACTED]

I am writing to let you know that the MOD has been able to update the size of the proposed TDA at RAF Waddington associated with ACP-2020-100 for SkyGuardian operations in the UK this summer.. The minimum airspace requirement associated with the preferred flight profiles has become better understood and so in conjunction with the Control Authority, Waddington ATC, some significant reduction in TDA size has been affected.

Of particular interest to you and the operators at Temple Bruer, the proposed TDA at RAF Waddington will be reduced laterally to a 5NM radius circle centred on Waddington's main runway. The maximum upper limit remains FL100 pending CAA approvals for the activity. Procedures will be in place to enable Temple Bruer operations to continue with minimum impact. Waddington ATC is working on these now and will be in touch in due course if the TDA submission is successful.

The MOD expects to submit its proposal later today after which all relevant documents will be uploaded to the CAA ACP portal. I will advise all other stakeholders on my list with an interest in Temple Bruer similarly today.

Regards,

[REDACTED]

ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

[REDACTED]



 Please consider the environment before printing this email.

From: UASDCD-ACP

Sent: 16 February 2021 19:13

Subject: RE: UC Waddington Drone operation.

[REDACTED]

Thank you for your response to the MOD's request for feedback on its engagement for ACP-2020-100 (SkyGuardian TDAs for Summer 2021). Your comments have been noted and will be carried forward for the MOD's analysis.

I will keep you advised on any potential developments with the design and operation of the TDAs.

Regards,

[REDACTED]

ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091
Email: UASDCD-ACP@qinetiq.com



 Please consider the environment before printing this email.

Sent: 12 February 2021 17:02

To: UASDCD-ACP <UASDCD-ACP@qinetiq.com>

Subject: Waddington Drone operation.

Dear Sirs,

I have flown light planes from Temple Bruer airfield since 1984. During 'RAF hours' I liaise with Cranwell for departure and arrival instructions, as do others on the airfield, and the system works well.

I am concerned to see that the proposed TDA for drone operation takes in Temple Bruer. I do not know the climb and descent performance of the drone, but hope that we will be able to depart and arrive in an easterly and westerly direction whilst the TDA is in force. Cranwell often requests us not to exceed 500 feet (sometimes 800) until we are clear of their MATZ .

Briefly, two other things :-

- a). the extended centreline from Waddington (southerly) passes well to the west of TB
- b). as TB is on the northern edge of the Cranwell ATZ , anything affecting us will presumably similarly affect Cranwell.

Yours faithfully,

[REDACTED]

Archived: 26 March 2021 14:34:31

From: UAS CDC-ACP

Sent: 26 March 2021 14:23:00

Subject: RE: UC Waddington ACP

Sensitivity: Normal

D [REDACTED]

I am writing to let you know that the MOD has been able to update the size of the proposed TDA at RAF Waddington associated with ACP-2020-100 for SkyGuardian operations in the UK this summer. The minimum airspace requirement associated with the preferred flight profiles has become better understood and so in conjunction with the Control Authority, Waddington ATC, some significant reduction in TDA size has been affected.

Of particular interest to you and the operators at Temple Bruer, the proposed TDA at RAF Waddington will be reduced laterally to a 5NM radius circle centred on Waddington's main runway. The maximum upper limit remains FL100 pending CAA approvals for the activity. Procedures will be in place to enable Temple Bruer operations to continue with minimum impact. Waddington ATC is working on these now and will be in touch in due course if the TDA submission is successful.

The MOD expects to submit its proposal later today after which all relevant documents will be uploaded to the CAA ACP portal. I will advise all other stakeholders on my list with an interest in Temple Bruer similarly today.

Regards,

[REDACTED]

ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 6 [REDACTED]

[REDACTED]



Please consider the environment before printing this email.

From: UAS CDC-ACP

Sent: 16 February 2021 19:04

Subject: RE: UC Waddington ACP

[REDACTED]

Thank you for your response to the MOD's request for feedback on its engagement for ACP-2020-100 (SkyGuardian TDAs for Summer 2021). Your comments have been noted and will be carried forward for the MOD's analysis.

I will keep you advised on any potential developments with the design and operation of the TDAs.

Regards,

[REDACTED]

ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091

Email: UAS CDC-ACP@qinetiq.com



Please consider the environment before printing this email.

Sent: 14 February 2021 21:45

To: UAS CDC-ACP <UAS CDC-ACP@qinetiq.com>

Subject: Waddington ACP

Hi,

[REDACTED]

I live at [REDACTED] F and as well as owning my own light aircraft (based at Temple Bruer) I am also a Commercial Airline Pilot and Professional Drone Pilot.

Although I am very familiar with the use of TDA's and associated airspace, I am very concerned with shear size of the ACP around Waddington. This is going to negatively affect my operations out of Temple Bruer and Wickenby airfields, as well as affect the livelihoods of those airfields and those people who work there.

The five MATZ's that currently exist (all conjoined) allow for all manner of operations, and I would like to see a more efficient use of the airspace that is already set aside for Military operations.

Archived: 26 March 2021 14:35:10

From: UASDCD-ACP

Sent: 26 March 2021 14:25:00

To: [REDACTED]

Subject: RE: UC Airspace Change Proposal 2020-100 Sky Guardian Waddington

Sensitivity: Normal

Dear [REDACTED]

I am writing to let you know that the MOD has been able to update the size of the proposed TDA at RAF Waddington associated with ACP-2020-100 for Sky Guardian operations in the UK this summer. The minimum airspace requirement associated with the preferred flight profiles has become better understood and so in conjunction with the Control Authority, Waddington ATC, some significant reduction in TDA size has been affected.

Of particular interest to you and the operators at Temple Bruer, the proposed TDA at RAF Waddington will be reduced laterally to a 5NM radius circle centred on Waddington's main runway. The maximum upper limit remains FL100 pending CAA approvals for the activity. Procedures will be in place to enable Temple Bruer operations to continue with minimum impact. Waddington ATC is working on these now and will be in touch in due course if the TDA submission is successful.

The MOD expects to submit its proposal later today after which all relevant documents will be uploaded to the CAA ACP portal. I will advise all other stakeholders on my list with an interest in Temple Bruer similarly today.

Regards,

[REDACTED]

ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

[REDACTED]

Email: UASDCD-ACP@qinetiq.com

Please consider the environment before printing this email.

-----Original Message-----

From: UASDCD-ACP

Sent: 08 March 2021 12:55

To: [REDACTED]

Subject: RE: UC Airspace Change Proposal 2020-100 Sky Guardian Waddington

Dear [REDACTED]

Thank you for your email. The MOD has received a substantial number of responses from operators at Temple Bruer and will be responding to you all in due course with a plan to minimise any inconvenience that the TDA might bring. I expect to be able to respond by the end of this week (earlier hopefully).

[REDACTED]

ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 63091

Email: UASDCD-ACP@qinetiq.com

Please consider the environment before printing this email.

-----Original Message-----

[REDACTED]

Sent: 22 February 2021 13:30

To: UASDCD-ACP <UASDCD-ACP@qinetiq.com>

Subject: Airspace Change Proposal 2020-100 Sky Guardian Waddington

Good afternoon

Please accept this email in response to ACP 2020-100.

I operate a vintage single engine light aircraft from a grass strip airfield within the southern boundaries of the proposed airspace, Temple Bruer Airfield.

I fly during the week and also at weekends, I anticipate being transponder equipped by the time this proposal is in place.

Whilst Sky Guardian will operate by notam, I believe that resident users of the airspace would benefit from a mutually convenient arrangement enabling use of Temple Bruer Airfield without the need for pilots adding to controller workload seeking crossing clearances. Radio communications on the ground before take off are susceptible to transmission difficulties.

A local agreement for arrivals / departures procedure from Temple Bruer would reduce pilot and controller workload and allow all users to benefit from a mutually workable system without the requirement for additional procedures or resources.

Users of Temple Bruer currently have a good working relationship with RAF Cranwell and I would hope that this promotes confidence in the suggestion that an arrangement of this nature would work and be acceptable.

Thank you for taking the time to read my feedback.

[REDACTED]

Archived: 26 March 2021 18:55:59
From: UAS CDC-ACP
Sent: 26 March 2021 18:50:00
To: [REDACTED]
Subject: RE: UC ACP-2020-100 Engagement Letter
Sensitivity: Normal

Dear [REDACTED]

I am conducting a little tidy up of my Inbox and note that I did not respond to you as promised. I do apologise. Please be advised that a Danger Area Crossing Service has been agreed will be in operations during the whole activation of the TDAs, so you should have no issues gaining access.

The MOD expects to submit its proposal later today after which all relevant documents will be uploaded to the CAA ACP portal.

[REDACTED]

ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091
[REDACTED]
Email: UAS CDC-ACP@qinetiq.com



Please consider the environment before printing this email.

From: UAS CDC-ACP
Sent: 16 February 2021 19:25
To: [REDACTED]
Subject: RE: UC ACP-2020-100 Engagement Letter

Dear [REDACTED]

Thank you for your response to the MOD's request for feedback on its engagement for ACP-2020-100 (SkyGuardian TDAs for Summer 2021). Please accept this email as a holding email. Your comments have been noted and will be carried forward for the MOD's analysis. I will get back to you in due course (next week).

I will keep you advised on any potential developments with the design and operation of the TDAs.

Regards,

[REDACTED]

ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091
Email: UAS CDC-ACP@qinetiq.com



Please consider the environment before printing this email.

From: [REDACTED]
Sent: 01 February 2021 11:10
To: UAS CDC-ACP <UAS CDC-ACP@qinetiq.com>
Subject: RE: UC ACP-2020-100 Engagement Letter

Morning

All understood and thanks for including us. In the event of an electrical 'emergency' i.e. fault conditions on any of the network within the TDA – will we be in a position to co-ordinate a response from one of our aircraft if required. Standardly when on patrol we would be operating from ground level to 500ft agl. As stated this would only be for emergency response and not when we are conducting routine inspections.

Many thanks

[REDACTED]

Western Power Distribution Helicopter Unit
[REDACTED]



From: UAS CDC-ACP <UAS CDC-ACP@qinetiq.com>
Sent: 29 January 2021 17:29
To: UAS CDC-ACP <UAS CDC-ACP@qinetiq.com>
Subject: UC ACP-2020-100 Engagement Letter

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Dear Stakeholder,

Please find attached a copy of the engagement material relating to the proposed establishment of Temporary Danger Areas (TDAs) in the vicinities of RAF Waddington and RAF Lossiemouth during the Summer 2021. You are being sent this document as a potential stakeholder.

The document explains the rationale behind the proposal and contains details of the proposed TDAs. Should you wish to comment please do so by email. A Response Form is also attached in Word format which you might find useful for your feedback, but feel free to send your comments in any written form, directly in an email if you prefer. The address at the top of the attached letter will periodically be monitored for hard copy responses.

Email responses should be sent to:

The Airspace Change Manager at UAS CDC-ACP@qinetiq.com

Responses to the attached material should be mailed in time to reach the MOD by Friday 12 March 2021.

Live Online Engagement Opportunity

The MOD will be running a live online engagement meeting at 0900 – 1100hrs on Tuesday 9 February 2021. Your attendance is optional. An invitation will be sent to all stakeholders by 1700hrs on Friday 5 February 2021. During this online

meeting the MOD will run through the proposal for the TDAs, with little additional information than enclosed at the attached, but any newly available up-to-date material will be shared. You are invited to ask questions about the proposal or to ask for clarification of the designs, which the MOD will endeavour to answer fully. **Please forward your questions in advance to the email address UASCDC-ACP@qinetiq.com**

Please Note:
The MOD is also sponsoring ACP-2019-18
"Enabling Remotely Piloted Air System Operations Out of RAF Waddington"
This ACP is completely separate.

Regards,

[Redacted]

Air Traffic Management Specialist
Defence UAS Capability Development Centre

Telephone No: 01980 663091



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This email and any attachments to it may be confidential and are intended solely for the use of the individual to whom it is addressed. If you are not the intended recipient of this email, you must neither take any action based upon its contents, nor copy or show it to anyone. Please contact the sender if you believe you have received this email in error. QinetiQ retains personal data relating to our customers and partners for the purposes of conducting a business relationship, communicating and marketing to them as well as to providing invitations to upcoming events. Please see our [Privacy Notice](#) for further information. In accordance with our Privacy Notice, you have the right to withdraw your consent at any time. QinetiQ may monitor email traffic data and also the content of email for the purposes of security. QinetiQ Limited (Registered in England & Wales: Company Number: 3796233) Registered office: Cody Technology Park, Ivelly Road, Farnborough, Hampshire, GU14 0LX <https://www.qinetiq.com>

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If you have received this email in error please notify postmaster@westempower.co.uk

Archived: 26 March 2021 20:22:17

From: UAS CDC-ACP

Sent: 16 February 2021 18:59:00

To: [REDACTED]

Subject: RE: UC TDAs at Waddington and Lossiemouth

Sensitivity: Normal

Dear [REDACTED]

Thank you for your response to the MOD's request for feedback on its engagement for ACP-2020-100 (SkyGuardian TDAs for Summer 2021). Your comments have been noted and will be carried forward for the MOD's analysis.

I will keep you advised on any potential developments with the design and operation of the TDAs.

Regards,

[REDACTED]

ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091
Email: UAS CDC-ACP@inetiq.com



 Please consider the environment before printing this email.

From: [REDACTED] >

Sent: 16 February 2021 15:43

To: UAS CDC-ACP <UAS CDC-ACP@qinetiq.com>

Subject: TDAs at Waddington and Lossiemouth

Dear Sirs,

I wish to object to the new TDAs at the locations notified. These drones have sophisticated camera technology and radar systems that enable them to avoid other aircraft in the area better than a human pilot. I understand they also have a ground based operator with optical equipment allowing him to avoid other airspace users if the automatic equipment does not function for any reason..

It is unreasonable to restrict other airspace users as proposed.

Use of this equipment in the TDAs is likely to be limited to a very few sorties per week and notification can easily be promulgated via NOTAM when the sorties will occur.

Effectively closing airspace for non essential uses could be construed as against the human rights of other airspace users.

Yours faithfully

[REDACTED]

Archived: 26 March 2021 17:09:53
From: UAS CDC-ACP
Sent: 17 March 2021 17:05:00
To: [REDACTED]
Subject: RE: UC UAS TDA RAF Waddington
Sensitivity: Normal

Dear [REDACTED]

Thank you for your email and the feedback attached. The change sponsor is working hard towards finding ways to minimise the impact of the proposed TDAs on all airspace users but I can offer the following in response to some of your comments:

CAP 1616 - 90 day limit on TDAs:

- This was discussed at the Assessment Meeting with the CAA in Dec 2020. Please see Item 4 (TDA Duration Policy) of the meeting minutes which can be found here: <https://airspacechange.caa.co.uk/umbraco/Surface/DocumentSurface/DownloadDocument/2639>

TDA Locations:

- Same link as above, potential for Lossiemouth was presented
- Statement of Need (SoN)
- RAF Lossiemouth: At the time of the Assessment Meeting, the activity out of RAF Lossiemouth was not confirmed, although it was shortly afterwards. The SoN could have been updated, but as the additional basing was discussed at the Assessment Meeting and presented in the engagement material, it was not thought necessary. I will confirm with the CAA and if necessary make an amendment to the SoN.
 - Basing at RAF Waddington: this is where Protector will be based and, therefore, there is huge benefit in operating SkyGuardian from there in terms of familiarising the base with RPAS operations (ATC, Ops, Fire crews, etc) as well as other local airspace users/managers. RAF Waddington is also located in close proximity to EG D323 where SkyGuardian will conduct the majority of its activity during July and August. This means that the transit times are relatively short, which helps to minimise the length of time that the TDA is active.

MOD Document:

- The MOD has made changes to the size and shape of the TDAs at both locations which will be promulgated shortly. Both are smaller than the engagement material presented and are no larger than needs be for the SkyGuardian activity to be accommodated at both locations.
- A DACS has been formally agreed at both RAF Waddington and RAF Lossiemouth and arrangements are being made to enable any operators within the TDAs to continue with minimal interruption.

Your comments have all been noted, even if not specifically answered here, and will be used in the development of the final TDA design to be submitted to the CAA. The MOD will be providing an update to all stakeholders in the coming weeks and will continue to work with affected parties if the TDA submission is approved next month.

[REDACTED]

ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091

Email: UAS CDC-ACP@qinetiq.com



 Please consider the environment before printing this email.

From: [REDACTED] >
Sent: 08 March 2021 10:28
To: UAS CDC-ACP <UAS CDC-ACP@qinetiq.com>
Subject: UAS TDA RAF Waddington

Please find attached my feedback on your ACP for TDAs at RAF Waddington & RAF Lossiemouth. I object to the proposal in its entirety and it would require significant amendment for my view to change.

I believe my feedback is self-explanatory but if you require further info please ask.

Kind regards

[REDACTED]

ACP-2020-100 Response Form

Name	[REDACTED]
Representing	Personal GA/Microlight pilot
Address	[REDACTED]
Feedback	
<p><u>Overriding Comment</u></p> <p>The overriding impression of this ACP is that the MoD wants new, albeit temporary airspace to assess flight profiles, and it has left the acquisition of this airspace too late to comply with the requirements of the ACP. This application is not specific, it is incomplete, it is hurried and it fails to meet the requirements of CAP 1616.</p> <p>If the aim is to assess flight profiles then airspace used for the trials need not be based at/around RAF Waddington or RAF Lossiemouth, but airspace around existing RAF trials bases, especially UAS trails, could readily be used.</p> <p>MoD Boscombe Down (the MoD ‘tri-Service home of military aircraft Test & Evaluation’) and West Wales Airport (WWA - ‘fully authorised to enable the flying of UAS beyond visual line of sight (BVLOS) over land and sea’) both have extensive collocated DAs and in-house trials expertise. Why would either or both of these not be entirely suitable for these MoD trials with much, much less disruption to GA flying.</p> <p>There is absolutely no satisfactory case made for the airspace requested and I object to the proposal.</p> <p>NB. Throughout the feedback below, text in italics is taken from MoD ACP documents.</p> <p>1. <u>CAP 161</u></p> <p>CAP 1616 splits the process into 3 categories – permanent change, temporary change, and airspace trial. The ACP proposed is not specific about which category is being applied but the reading of it (inc Note 9 on page 15 of the CAP) and the ‘definitions’ of the 3 categories in the CAP indicate this is a temporary change to the published airspace design.</p> <p>As such, the CAP limits such changes to 90 days:</p> <p><i>“a temporary change to the published (notified) airspace design (usually less than 90 days, except in extraordinary circumstances)”</i></p> <p>The draft programme 5 Jul – 8 Oct exceeds that 89 day limit and the MoD has made no case for ‘exceptional circumstances’.</p>	

2. TDA Locations

Two TDAs are proposed at separate locations almost 300nm apart. One location is entirely overland in an area of intense military and GA activity, and only 2500ft beneath CAS. While the other is a coastal location (about half the airspace is overseas) in a much less dense GA environment and 9500ft beneath CAS.

CAP 1616 states that *'All airspace change proposals are different, and often there are differing requirements and interests that may conflict.'* The 2 areas proposed by the MoD are quite different with differing requirements and interests; should they not be considered/assessed through separate ACPs?

3. MoD Statement of Need

It is interesting that the Statement of Need:

- a. Makes no mention of RAF Lossiemouth
- b. Has a statement of 'wish' *"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."*. But this is NOT a statement of need:
 - i. what exactly is basing the a/c at RAF Waddington expected to achieve or demonstrate?
 - ii. why does the a/c 'need' to be based at RAF Waddington?

4. MoD Document - The Summary of Webex Engagement Meeting held 9 Feb 21

4a. Trial Aims & Location

This Summary seems to suggest that departure and arrival profiles are being trialled but it is not explicitly stated. Why can those profiles not be examined elsewhere, perhaps even at the a/c's home base in the USA or through computer simulation?

Both Boscombe Down and WWA would be most suitable for this work.

Item 2. 2. Protector v SkyGuardian (different ACPs). "3.Protector and SkyGuardian are variants of the same aircraft. Protector is the designation for the RAF's version; SkyGuardian is the name of the manufacturer's version. 4.The MOD has commenced an ACP for Protector operations at RAF Waddington when it comes into service in 2023. 5.The SkyGuardian ACP is completely separate from the Protector ACP. SkyGuardian and Protector are similar platforms, but this summer SkyGuardian will benefit from an on-board detect and avoid (DAA) capability. When Protector comes into service in 2023 it will not have a DAA capability. SkyGuardian and Protector will require different airspace constructs and procedures from each other to operate in the UK. This is why there are 2 different ACPs for the 2 activities."

As 'different airspace constructs' are required why aren't trials for these conducted in formally established DA airspace and not in new TDAs in the middle (in one case at least) of a very busy GA area.

4. Brief on TDA requirement, design and operation

Whilst SkyGuardian could operate in a slightly smaller volume of airspace we are aiming to emulate the Protector flight profiles in order to see if the airspace can cater for typical Protector departure and arrivals in the manner which the RAF intends to train its crews. Protector will have a wider range of flight profiles and is likely to carry different sensors and equipment which will affect its flight performance.

Would it not be better, then, to carry out computer simulations such as those conducted by GA with The Netherlands for this aircraft to assess the flight profiles?

4b. DACS

5. TDA Management

A Danger Area Crossing Service (DACS) is anticipated to be provided to enable access to the TDAs when active. The term "anticipated" in terms of DACS provision has been used and caused some concern amongst stakeholders. Owing to the timescales involved in trying to get this proposal out and to provide a 6 week period of engagement, the formal request had not been made to the ATC units. Stakeholders will be advised as soon as an agreement has been reached.

So when ATC agreement is reached regarding DACS provision this ACP should be considered, not before. IF agreement is not reached it is likely to alter some stakeholders' views/comments. An ACP should surely be made only when the applicant's internal agreements/arrangements are complete.

DACS relies on R/T but what of a/c that have no radio – microlights? What about the farm strip-based a/c currently in the RAF Waddington MATZ, which are most unlikely to be able to communicate by R/T with RAF Waddington while still on the ground?

DACS should be fully agreed **BEFORE** submission of the ACP.

5. Questions from WebEx Engagement Meeting

5a. TDA Dimensions

A2. Why is the volume of airspace needed down to the surface over 8nm from the touchdown point in use? (GAA) It may not be required. A workshop is planned for the week commencing 15 Feb 21 with military stakeholders where refinements to the design will be discussed.

So surely ACP should be submitted and considered only when final airspace is determined.

A10. The Engagement Letter states it is anticipated that ATC will be active anytime SkyGuardian flies, is this likely to be nailed down to a more mandatory requirement? Such as the TDA only being active if ATC are manned? (GAA) The MOD sees the provision of a DACS as an essential requirement for the duration of an active TDA.

Why is TDA required at all except during t./o and landing portions of sortie?

A30. How will the datalink failure be managed if the TDA is deactivated between departure and recovery? (BHPA) The MOD believes that deactivating the TDA in between departure and recovery is a difficult option to pursue. It will be explored with the airspace managers and the CAA.

The MoD should explain why it's "a difficult option"?

A12. Why not just simply use the existing MATZ/ATZ airspace; complicating airspace with more overlays seems like overkill. (Temple Bruer operator) The presentation provided rationale for the volume of airspace required and also indicated that the volume would be reduced if possible. The TDA design is based on the DAA limitations, SkyGuardian and Protector flying profiles and the CAA approvals. In addition existing MATZ and ATZ constructs do not constitute segregation for RPAS flying BVLOS without DAA.

The TDA stretches some 9nm in each direction from the t/o and landing point, but surely the a/c will have at least a 3 deg slope and will be well above ground level in either case within a few nm of t/o or touchdown point. The TDA need not be down to ground level outside the MATZ, and could have stepped lower height limits.

'a difficult option to pursue' doesn't really answer the question posed. The TDA could be just the dimensions of MATZ; in both cases making the MATZ the TDA would really reduce the airspace 'taken' from Class G/GA users, and GA mostly avoid MATZs whenever possible.

5b. GA Mitigation/DACS (also see my 4b above)

A15. What consideration has been made regarding Temple Bruer and the proposed TDA and what procedures will be developed to allow continued activity from it, with the minimum of disruption? (Temple Bruer operator) As Q13 & Q14, every effort will be made to provide ready access for Temple Bruer aircraft. Likely to be only restricted during the short time periods when SkyGuardian is in the TDA. DACS is anticipated to enable access.

At Item 5 in The Summary of Webex Engagement Meeting the MoD seems to be saying it doesn't control the ATC units and has to reach agreement with them. So the MOD cannot commit the ATC units to provide TB a/c with clearance. Moreover, many LA/ULAC don't have radios that would reach Waddington from the ground so basing a process only on R/T contact will preclude TB operations and many other microlight a/c.

Archived: 26 March 2021 17:13:47
From: UAS CDC-ACP
Sent: 17 March 2021 18:19:00
To: [REDACTED]
Subject: RE: UC ACP-2020-100 Response Form
Sensitivity: Normal

Dear [REDACTED]

Thank you for your email and feedback on the MOD engagement material for ACP-2020-100. Your comments have been noted and are aligned, as you would expect, with the majority of feedback received. I can advise that the change sponsor has worked hard to find ways in which to minimise the impact on other airspace users and has been able to significantly reduce the size of the TDAs it intends to submit to the CAA on 26 March for consideration.

Whilst I am working hard to meet the March deadline, I would hope to be able to update all stakeholders prior to submission on the TDA designs, albeit the update may be somewhat brief! We still anticipate that an Area B will be required at both locations up to FL100, although this has not yet been confirmed by the CAA.
I would be happy to discuss any ideas you can suggest to assist non-radio aircraft.

Regarding your last paragraph of feedback, the change sponsor and I are liaising closely with the airspace managers at Waddington and the RPAS manufacturer to ensure an appropriate size of airspace is implemented alongside appropriate procedures to maximise opportunities for all airspace users. We will also continue relevant lines of communication to develop ideas in the months leading up to the summer deployment.

[REDACTED]
ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No. 01980 663091
[REDACTED]
Email: UAS CDC-ACP@qinetiq.com



 Please consider the environment before printing this email.

From: [REDACTED]
Sent: 08 March 2021 17:05
To: UAS CDC-ACP <UAS CDC-ACP@qinetiq.com>
Subject: ACP-2020-100 Response Form

Please see attached response to ACP-2020-100

Regards

[REDACTED]
[MICROLIGHTS GO TO 600KG – MORE INFO + FULL FAQ HERE](#)
British Microlight Aircraft Association – The natural home of microlights



This e-mail is for the intended recipient only. If obtained in error, please delete and notify the sender.

ACP-2020-100 Response Form

Name	[REDACTED]
Representing	British Microlight Aircraft Association
Address (including postcode if possible)	[REDACTED]
<p>Feedback:</p> <p>Introduction</p> <p>I respond on behalf of the members of the British Microlight Aircraft Association (BMAA). We have approximately 3800 members flying 1600 regulated microlights and approximately 300 unregulated microlights.</p> <p>Our members largely fly for leisure, although we have around 200 flight instructors many of whom operate full time training schools. Although much of our members' flying takes place at weekends we do have many members who are able to fly during the week.</p> <p>Almost all our members' microlights have radio, a growing proportion, although still a minority, carry a transponder and / or an EC device.</p> <p>I attended the online briefing held in February 2021.</p> <p>Feedback for both Waddington and Lossimouth TDAs</p> <p>DACS We note that a DACS will be available at all times that the TDAs are active which will allow our members to have access to the TDA when the RPAS is not active or is active but not local. We consider it essential that a DACS is available at all times that the TDAs are notified as active.</p> <p>TDA Volumes From the briefing we understand that the flight profile of the RPAS during the take-off, climb and recovery is steep and spiral. These profiles should minimize the volume of airspace that is needed to protect the aircraft.</p> <p>We are concerned that the lateral dimensions of the TDA appear to be significantly greater along the approach paths than for the currently based MATZ. We question whether there is any occasion that the areas alongside the existing MATZ stubs will be used and suggest that the lateral dimensions be reviewed, possibly to align with the existing MATZ dimensions.</p> <p>We question the need for the TDA to start at the surface along the approach paths, as it is very unlikely that there will be any planned departure or recovery profile which will use airspace below the existing MATZ stub limit of 1000' AAL. We suggest the lower limit of the TDAs be reviewed and suggest that they are aligned with the existing MATZ dimensions.</p> <p>We are aware that there are local airstrips that may be affected by the</p>	

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proposal. The sponsor should engage with the operators and develop lines of communication so that airstrip activity can continue with as little disruption as possible.

We would also like to see arrangements made for non-radio aircraft to be accommodated within the TDA.

Given that the purpose of the TDAs is to help prepare for the future basing of UK RPAS we are concerned that a future ACP will be based upon an unnecessarily large TDA as proposed at this time. Although with mitigation such as a DACS and local agreements in place our members might be expected to “live with” the current proposals, a permanent volume of the same size, particularly at Waddington would create an unacceptable barrier to recreational flying within the area.

END

08/03/2021

Feedback on the proposed change and what is important to you should be sent to
The Airspace Change Manager at UASCDC-ACP@qinetiq.com

Responses regarding the proposed TDA submission must be received by 12 March 2021.

Archived: 26 March 2021 17:46:51
From: [Green Alison](#)
Sent: 19 February 2021 06:49:00
To: [REDACTED]
Subject: RE: UC SkyGuardian meeting.
Sensitivity: Normal

Dear [REDACTED]

Following on from your email last week, please be advised that the MOD has uploaded the following documents to the CAA ACP portal in respect of the Webex meeting held on 9 Feb 21 as part of the stakeholder engagement for ACP-2020-100:

- Presentation for SkyGuardian TDA Webex_9 Feb 21
- Summary of SkyGuardian TDA Webex_9 Feb 21

They can be found here: [Airspace change proposal public view \(caa.co.uk\)](#)

[REDACTED]

Air Traffic Management Specialist
Defence UAS Capability Development Centre

Telephone No: 01980 663091

Email: agreen6@qinetIQ.com



 Please consider the environment before printing this email.

From: Nick White <whiteadnil@aol.com>
Sent: 09 February 2021 12:22
To: [REDACTED]
Subject: SkyGuardian meeting.

Good morning [REDACTED].

I missed this morning's meeting due to the fact that the invitation was sent late yesterday evening via enquiries@psgc.co.uk. It takes sometime for such an e-mail to filter through to myself, therefore I didn't receive it until after the meeting closed. These e-mails are usually sent to my own address (above). Will we receive minutes of this meeting?

Kind regards [REDACTED] (Chair PSGC)

Archived: 26 March 2021 17:43:19
From: [REDACTED]
Sent: 09 February 2021 13:16:46
To: Green Alison
Subject: Re: UC SkyGuardian meeting.
Sensitivity: Normal

[REDACTED]

I have checked with our enquiries receiver and he doesn't have a record of the previous two e-mails to which you refer. It may be that they ended up in the spam folder, which he doesn't monitor regularly. It would be helpful if you could include my address for future coms as you have indicated.

Thank you for your prompt reply.

Regards [REDACTED].

-----Original Message-----

From: [REDACTED]
To: [REDACTED]
Sent: Tue, 9 Feb 2021 12:41
Subject: RE: UC SkyGuardian meeting.

[REDACTED]

Thank you for your email. I'm sorry you missed the Webex meeting, but I can confirm that a summary of the meeting including the PPT presentation will be posted on the CAA ACP portal as soon as I have created it (them?). I will send a link to you when it is available.

Just to confirm, did you receive the engagement material sent out to the enquiries@psgc.co.uk email address on Friday 29th January? I also sent the Webex meeting invitation to the same address on Friday 5th February at a little before 1730? Last night's email was an update with the agenda attached.

I'm only asking to make clarify what you have received so far.

Would you prefer I send all future communications to the enquiries address as well as your personal one? Happy to do that.

[REDACTED]

Air Traffic Management Specialist
Defence UAS Capability Development Centre

Telephone No: 01980 663091

[REDACTED]

Email: agreen8@qinetiQ.com



Please consider the environment before printing this email.

From: [REDACTED]
Sent: 09 February 2021 12:22
To: [REDACTED]
Subject: SkyGuardian meeting.

Good mornin [REDACTED]

I missed this morning's meeting due to the fact that the invitation was sent late yesterday evening via enquiries@psgc.co.uk . It takes sometime for such an e-mail to filter through to myself, therefore I didn't receive it until after the meeting closed. These e-mails are usually sent to my own address (above). Will we receive minutes of this meeting?

Kind regards [REDACTED] (Chair PSGC)

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Archived: 26 March 2021 19:00:30
From: [REDACTED]
Sent: 19 February 2021 10:08:58
To: [REDACTED]
Subject: RE: UC I got my own e-mail address wrong
Sensitivity: Normal

Thank you [REDACTED] -- I believe I can potentially provide context on the GA landscape using incidences of Airprox to illustrate. I can also provide impartial observations on how the GA community in particular tends to operate. The former will have data behind it, the latter will be more likely anecdotal observations on things like propensity to use the radio (as an example).



Please note that, due to the coronavirus pandemic, the UKAB offices are closed until further notice. However, normal business continues as usual with staff working from home wherever possible. Please use the Skype number below if you wish to contact me by telephone.



[REDACTED]
Director UK Airprox Board
Building 59 | RAF Northolt | West End Road | Ruislip | Middlesex | HA4 6NG
[REDACTED]
[REDACTED]
FAX: 020 8842 6956

From: [REDACTED]
Sent: 19 February 2021 06:52
To: [REDACTED]
Subject: RE: UC I got my own e-mail address wrong

Dear [REDACTED],
Thank you for the offer to assist. I am hoping to set up a meeting with the gliding stakeholders who took part in the Webex. When I get a date, I will see if you would like to join. Otherwise, I'll get in touch separately.

[REDACTED]
Air Traffic Management Specialist
Defence UAS Capability Development Centre

Telephone No: 01980 663091
Email: agreen6@qinetiq.com

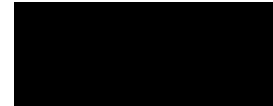


Please consider the environment before printing this email.

From: Caston Rachael <Rachael.Caston@airproxboard.org.uk>
Sent: 09 February 2021 11:15
To: [REDACTED]
Subject: I got my own e-mail address wrong

Hi [REDACTED] -- I would be happy to engage further if required.

[About us | UK Airprox Board](#)



Please note that, due to the coronavirus pandemic, the UKAB offices are closed until further notice. However, normal business continues as usual with staff working from home wherever possible. Please use the Skype number below if you wish to contact me by telephone.



[REDACTED]
Director UK Airprox Board
Building 59 | RAF Northolt | West End Road | Ruislip | Middlesex | HA4 6NG
[REDACTED]
[REDACTED]

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Archived: 26 March 2021 18:19:54

From: [REDACTED]

Sent: 24 February 2021 08:34:01

To: [REDACTED]

Subject: Re: UC ACP-2020-100 - Gliding Community Engagement

Sensitivity: Normal

Morning [REDACTED] I am (currently) available any time next week except Tue 2 Mar. Clearly, Pete Stratten will be speaking formally for the gliding community, with me simply falling into the 'one of those affected' category..

-----Original Message-----

From: [REDACTED]

To: [REDACTED]

CC: [REDACTED]

Sent: Tue, 23 Feb 2021 14:45

Subject: UC ACP-2020-100 - Gliding Community Engagement

Dear [REDACTED],

Thank you for your comments and questions during the ACP-2020-100 Webex (SkyGuardian TDAs) on 9 Feb 21. You brought up some useful information and I would like to take the opportunity to engage with you to determine if the MOD can better serve the gliding community either this year during the SkyGuardian activity or in the future with the Protector airspace requirement. I have cc'd [REDACTED]

[REDACTED] I would be very interested in seeing the material that Andy spoke about on 9th.

I could set up another Webex Meeting with you (and any of the cc'd) and the MOD team if you think this would be useful. If you have a better idea, I am open to suggestions!

If the Webex option suits, would you like to suggest a couple of meeting windows? I am committed this Friday 26 Feb and Monday 1 Mar already and will determine the rest of the team's availability asap. Please feel free to give me a call (either numbers below should end up on my mobile!).

[REDACTED]

Air Traffic Management Specialist

Defence UAS Capability Development Centre

Telephone No: 01980 663091

Email: [REDACTED]



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Archived: 26 March 2021 17:01:56

From: [REDACTED]
Sent: [REDACTED]

Subject: Re: UC TDA Area
Sensitivity: Normal

[REDACTED]

Thanks for your reply, yes my air strip is the one marked [REDACTED] strip, I'm the only user of it, I'm also in the process of buying pilot aware so hopefully that will help too.

Regards
[REDACTED]

Sent from my iPhone

On 2 Mar 2021, at 11:40, [REDACTED]

Dear [REDACTED]

Thank you for your email. Can I just confirm that your strip is the one marked [REDACTED] Strip? I would hate to assume and get that wrong.

If so, I will confirm with ATC at Waddington that you are included in their plans for consideration. I am meeting with Waddington on Monday 8th March again. Every effort is being made to enable maximum access to the TDA and/or minimum disruption to airspace users, particularly those who operate from within the TDAs' boundaries.

[REDACTED]

ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091

Email: UASDCD-ACP@qinetiq.com

<image001.jpg>

 Please consider the environment before printing this email.

From: [REDACTED]
Sent: 28 February 2021 20:56
To: [REDACTED] >
Subject: TDA Area

[REDACTED] from Headon airfield has forwarded your email to myself as my airstrip falls within your extended TDA area, please find attached photo from sky demon with my airstrip marked on it.
Any questions please give me a ring, look forward to hearing from you
Regards

[REDACTED]

<image002.png>

Sent from my iPhone

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Archived: 26 March 2021 17:00:52

From: [REDACTED]
Sent: [REDACTED]

Subject: RE: UC TDA Area
Response requested: Yes
Sensitivity: Normal

Dear [REDACTED],
Thank you for your email. Can I just confirm that your strip is the one marked [REDACTED] Strip? I would hate to assume and get that wrong.

If so, I will confirm with ATC at Waddington that you are included in their plans for consideration. I am meeting with Waddington on Monday 8th March again. Every effort is being made to enable maximum access to the TDA and/or minimum disruption to airspace users, particularly those who operate from within the TDAs' boundaries.

[REDACTED]
ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

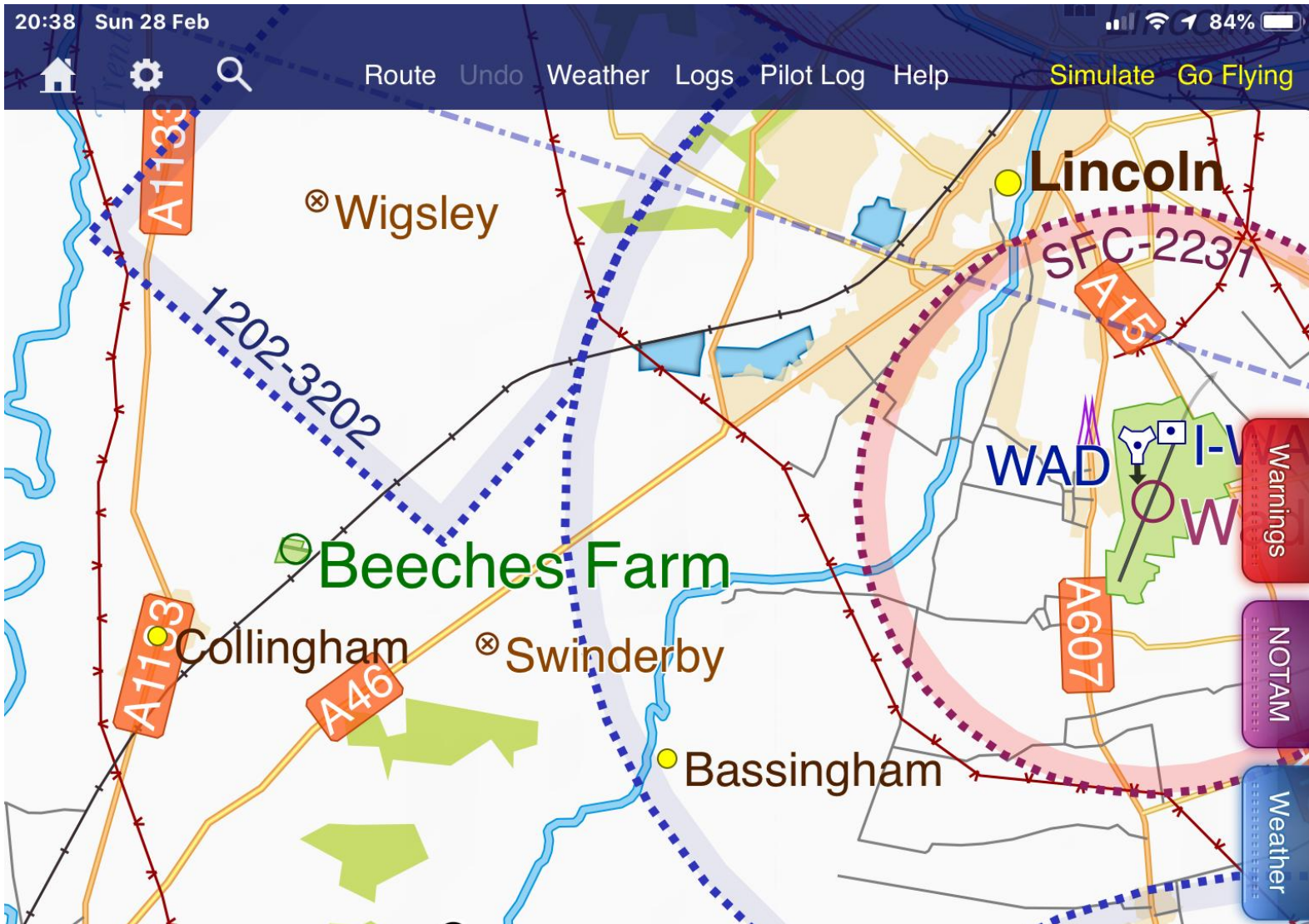


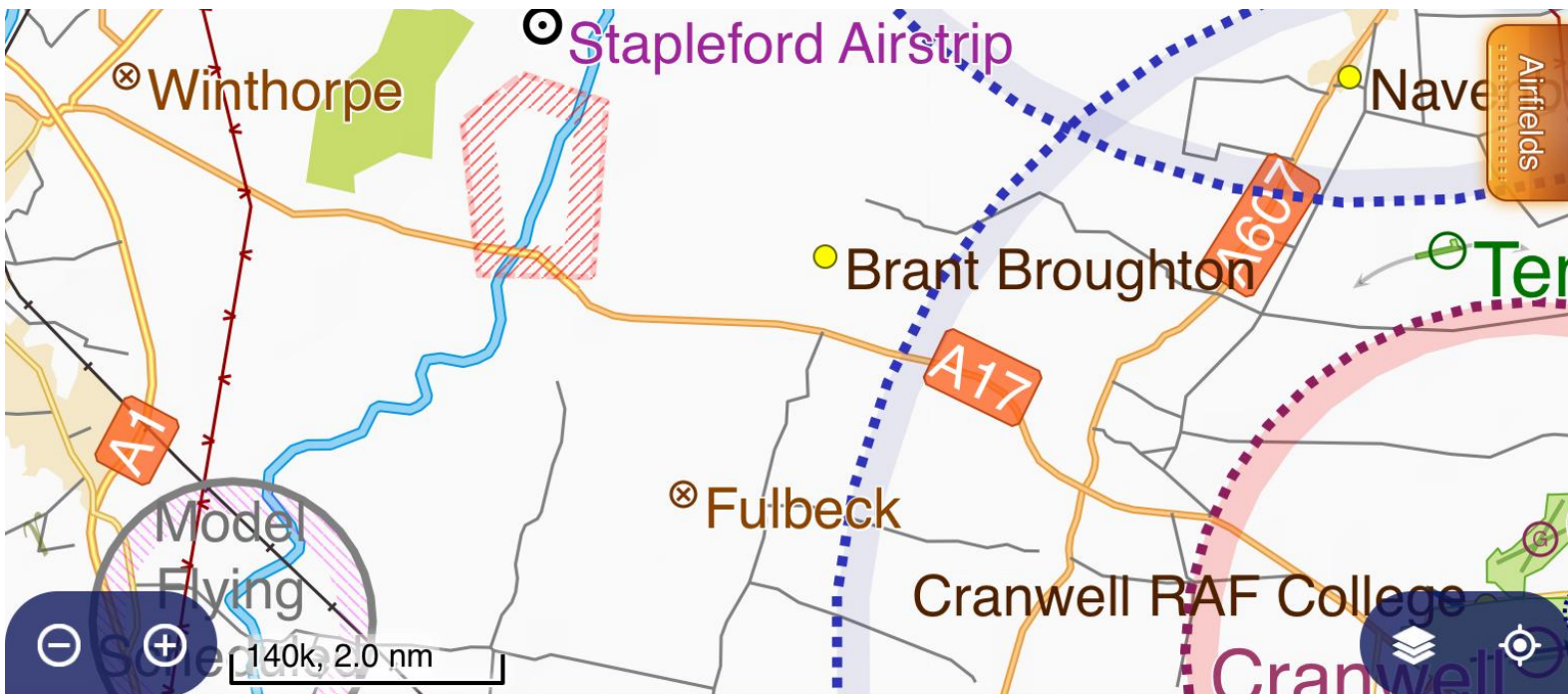
Please consider the environment before printing this email.

From: [REDACTED]
Sent: 28 February 2021 20:56
To: [REDACTED]
Subject: TDA Area

[REDACTED] from Headon airfield has forwarded your email to myself as my airstrip falls within your extended TDA area, please find attached photo from sky demon with my airstrip marked on it.
Any questions please give me a ring, look forward to hearing from you
Regards

[REDACTED]





Drag and pinch the map with your fingers to explore it. Touch and hold to see more information about what's under your finger.

When you're ready, touch your takeoff airfield to start planning.

Create Route

Find a Destination

Archived: 26 March 2021 18:10:01

From: [REDACTED]

Sent: 23 February 2021 14:45:00

To: [REDACTED]

Subject: UC ACP-2020-100 - Gliding Community Engagement

Sensitivity: Normal

Dear [REDACTED]

Thank you for your comments and questions during the ACP-2020-100 Webex (SkyGuardian TDAs) on 9 Feb 21. You brought up some useful information and I would like to take the opportunity to engage with you to determine if the MOD can better serve the gliding community either this year during the SkyGuardian activity or in the future with the Protector airspace requirement. [REDACTED]

[REDACTED] would be very interested in seeing the material that Andy spoke about on 9th.

I could set up another Webex Meeting with you (and any of the cc'd) and the MOD team if you think this would be useful. If you have a better idea, I am open to suggestions!

If the Webex option suits, would you like to suggest a couple of meeting windows? I am committed this Friday 26 Feb and Monday 1 Mar already and will determine the rest of the team's availability asap. Please feel free to give me a call (either numbers below should end up on my mobile!).

[REDACTED]

Air Traffic Management Specialist
Defence UAS Capability Development Centre

Telephone No: 01980 663091

Email: agreen6@qinetiq.com



 Please consider the environment before printing this email.

Archived: 26 March 2021 18:12:07

From: [REDACTED]

Sent: 23 February 2021 16:57:53

To: M [REDACTED]
Cc: [REDACTED]

Subject: Re: UC ACP-2020-100 - Gliding Community Engagement

Sensitivity: Normal

[REDACTED]

Happy to attend another meeting. I can work around the dairy, I am also tied up Friday and Monday.

I see [REDACTED] has sent his presentation with so useful info.

To note the CAA has just extended its EC grant window, which is good news.

[REDACTED]

On 23 Feb 2021, at 16:41 [REDACTED]

[REDACTED]

Thanks for your email just now - I have just completed some additions to the material I'd previously prepared in light of the information provided at the engagement session.

I've attached a PDF of the updated document for your review. It details a little about our operations as a BHPA sport aviation club flying hang gliders and paragliders, and about the flight patterns our members can engage in which would potentially be impacted by the proposed TDA. I have also suggested some possible mitigations that might be applied to the currently proposed TDA.

Please feel free to feedback any thoughts.

Kind regards,

[REDACTED]

On Tue, Feb 23, 2021 at 2:45 PM [REDACTED] wrote:

Dear [REDACTED]

Thank you for your comments and questions during the ACP-2020-100 Webex (SkyGuardian TDAs) on 9 Feb 21. You brought up some useful information and I would like to take the opportunity to engage with you to determine if the MOD can better serve the gliding community either this year during the SkyGuardian activity or in the future with the Protector airspace requirement. [REDACTED]

[REDACTED] would be very interested in seeing the material that Andy spoke about on 9th.

I could set up another Webex Meeting with you (and any of the cc'd) and the MOD team if you think this would be useful. If you have a better idea, I am open to suggestions!

If the Webex option suits, would you like to suggest a couple of meeting windows? I am committed this Friday 26 Feb and Monday 1 Mar already and will determine the rest of the team's availability asap. Please feel free to give me a call (either numbers below should end up on my mobile).

[REDACTED]

Air Traffic Management Specialist

Defence UAS Capability Development Centre

Telephone No: 01980 663091

M [REDACTED]

Email: agreen6@qinetiq.com

<image001.jpg>

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<DSC Waddington TDP and impact analysis.pdf>

Archived: 26 March 2021 18:12:52

From: [REDACTED]

Sent: 03 March 2021 21:19:39

To: [REDACTED]
Cc: [REDACTED]

Subject: Re: UC ACP-2020-100 SkyGuardian TDA discussion - very loose agenda

Sensitivity: Normal

Ali

I Auge had this twice now, am I missing something, say place holder but no date or time ?

[REDACTED]

On 3 Mar 2021, at 19:14, Green Alison <AGREEN6@qinetiq.com> wrote:

All,

A placeholder for a discussion surrounding the proposed TDAs for SkyGuardian. MOD keen to understand the points raised by [REDACTED] at the Webex on 9 Feb. I will revisit and send a loose agenda.

Agenda:

1. Introductions
2. TDA Designs - an interim update
3. Input from Hang gliders / paragliders (please describe apps, etc which were raised at the Webex)
4. Way ahead

[REDACTED]

Air Traffic Management Specialist
Defence UAS Capability Development Centre

[REDACTED]
Email: agreen6@qinetiq.com

<image001.jpg>



-- Do not delete or change any of the following text. --

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Meeting password: wHhVymvp364 (98448968 from phones and video systems)

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You can also dial 62.109.219.4 and enter your meeting number.

Join using Microsoft Lync or Microsoft Skype for Business

Dial [1813375307](tel:1813375307) @ [qinetiquk@lync.webex.com](https://qinetiquk.lync.webex.com)

If you are a host, [click here](#) to view host information.

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Archived: 26 March 2021 17:58:28

From: [REDACTED]

Sent: 04 March 2021 13:53:00

To: [REDACTED]

Subject: RE: UC Skyguardian TDAs - procedures and proposed TDA dimensions

Sensitivity: Normal

Hi [REDACTED]

Understood. Will do my best.

Yes very useful for me certainly.

[REDACTED]

ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091

[REDACTED]

Email: UASCDC-ACP@cinetiq.com



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From: [REDACTED]

Sent: 04 March 2021 12:22

To: [REDACTED]

Subject: Skyguardian TDAs - procedures and proposed TDA dimensions

Hi [REDACTED]

Thanks for the useful discussion earlier.

On the topic of procedures justifying the proposed size of the TDA, we would be grateful for sight of the proposed procedures as soon as possible.

Kind regards

[REDACTED]

[REDACTED]

Chief Executive Officer

British Gliding Association

[REDACTED]

[REDACTED]

www.gliding.co.uk



Registered in England 422605

Archived: 26 March 2021 17:51:12
From: [REDACTED]
Sent: 24 February 2021 09:46:01
To: [REDACTED]
Subject: RE: UC ACP-2020-100 - Gliding Community Engagement
Sensitivity: Normal

Thanks [REDACTED]
Regards
[REDACTED]

From: [REDACTED]
Sent: [REDACTED]
Subject: RE: UC ACP-2020-100 - Gliding Community Engagement

Hi again [REDACTED]
I am working on your letter at the moment. I'll get back to you with a plan going forward.
[REDACTED]

Air Traffic Management Specialist
Defence UAS Capability Development Centre

Telephone No: 01980 663091
[REDACTED]
Email: agreen@ojinet.co.uk



Please consider the environment before printing this email.

From: [REDACTED]
Sent: 24 February 2021 09:25
To: [REDACTED]
Subject: RE: UC ACP-2020-100 - Gliding Community Engagement

[REDACTED]
Have you engaged yet with the clubs we suggested in our feedback letter? It would be helpful if you could do so either collectively or individually to understand their specific needs. BGA is happy to be involved if that helps the sponsor understand the issues.
Re the wider soaring community, very happy to engage in whatever format works best to achieve the aim. We're keen that your team directly address the issues we've highlighted to you.
Kind regards
[REDACTED]

From: [REDACTED]
Sent: 24 February 2021 08:42
To: [REDACTED]
Subject: RE: UC ACP-2020-100 - Gliding Community Engagement

Good morning [REDACTED]
Would you prefer a separate meeting from the hang gliders with perhaps [REDACTED]? I'm happy either way and perhaps should have thought to engage separately.
[REDACTED]

Air Traffic Management Specialist
Defence UAS Capability Development Centre

Telephone No: 01980 663091
[REDACTED]



Please consider the environment before printing this email.

From: [REDACTED]
Sent: 23 February 2021 19:22
[REDACTED]
Subject: RE: UC ACP-2020-100 - Gliding Community Engagement

[REDACTED]
Just to be clear, [REDACTED] represents paragliding and hang gliding.
Kind regards
[REDACTED]

From: [REDACTED]
Sent: 23 February 2021 16:57
To: [REDACTED]
Subject: Re: UC ACP-2020-100 - Gliding Community Engagement

Hi [REDACTED]
Happy to attend another meeting. I can work around the dairy, I am also tied up Friday and Monday.
I see [REDACTED] has sent his presentation with so useful info.
To note the CAA has just extended its EC grant window, which is good news.
[REDACTED]

On 23 Feb 2021, at 16:41, [REDACTED]

Hi [REDACTED]

Thanks for your email just now - I have just completed some additions to the material I'd previously prepared in light of the information provided at the engagement session.

I've attached a PDF of the updated document for your review. It details a little about our operations as a BHPA sport aviation club flying hang gliders and paragliders, and about the flight patterns our members can engage in which would potentially be impacted by the proposed TDA. I have also suggested some possible mitigations that might be applied to the currently proposed TDA.

Please feel free to feedback any thoughts.

Kind regards,
[REDACTED]

On Tue, Feb 23, 2021 at 2:45 PM Green Alison <AGREEN6@qinetiq.com> wrote:

Dear [REDACTED]

Thank you for your comments and questions during the ACP-2020-100 Webex (SkyGuardian TDAs) on 9 Feb 21. You brought up some useful information and I would like to take the opportunity to engage with you to determine if the MOD can better serve the gliding community either this year during the SkyGuardian activity or in the future with the Protector airspace requirement. [REDACTED]

[REDACTED], I would be very interested in seeing the material that [REDACTED] spoke about on 9th.

I could set up another Webex Meeting with you (and any of the cc'd) and the MOD team if you think this would be useful. If you have a better idea, I am open to suggestions!

If the Webex option suits, would you like to suggest a couple of meeting windows? I am committed this Friday 26 Feb and Monday 1 Mar already and will determine the rest of the team's availability asap. Please feel free to give me a call (either numbers below should end up on my mobile!).

[REDACTED]
Air Traffic Management Specialist
Defence UAS Capability Development Centre

[REDACTED]
Email: agreen6@qinetiq.com

<image001.jpg>

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<DSC Waddington TDP and impact analysis.pdf>

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[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
www.gliding.co.uk

Airspace Change Manager
UASCDC-ACP@qinetiq.com

15th February 2021

BGA RESPONSE TO ACP2020-100 - WADDINGTON AND LOSSIEMOUTH TDAs

The BGA attended the recent QinetiQ/RAF engagement meeting re ACP 2020-100 Waddington and Lossiemouth TDAs. Thanks for the detailed and informative presentation.

This response represents the interests of the operators of some 2200 sailplanes flown by some 7000 individuals from some 80 sites in the UK.

Background

The 21 July 2020 published CAA Danger Area policy states that ‘the vertical and lateral dimensions and the operating hours of a notified TDA shall be the minimum practicable necessary to enable the tasks to be undertaken within it subject to the need to avoid overcomplication of airspace structures and any environmental considerations.’

The BGA understands that the military need to test and develop RPAS operations. We note that there is segregated airspace in West Wales specifically allocated for testing UAS/RPAS and that RAF Waddington hosts deployable RPAS capability.

If approved, the proposed TDA will be established during the peak operating period for sporting and recreational General Aviation flying including gliding. We note that there is an ambition to provide a limited TDA crossing service.

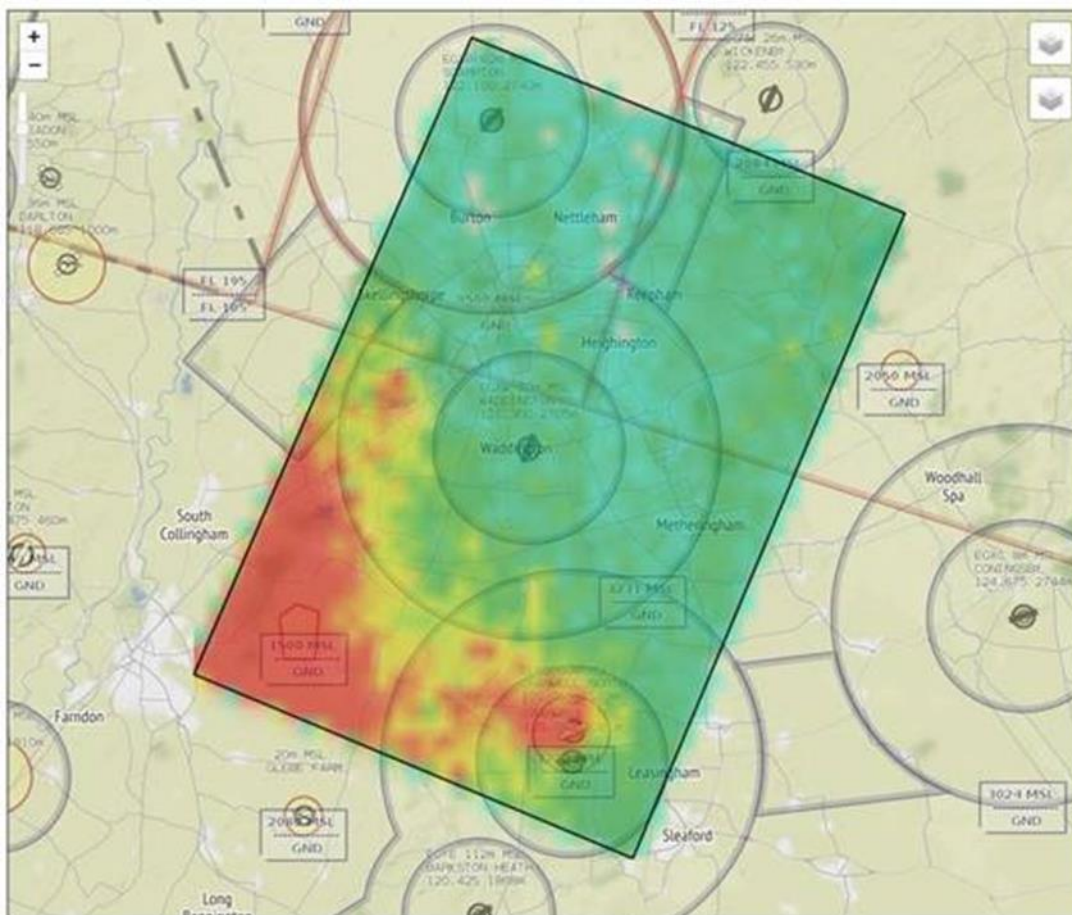
We note the proposed TDA dimensions of 18nm x 10nm SFC-3000’ (with a vertical extension to FL100 unless CAA approve the RPAS collision avoidance systems) centred and aligned with the runway, and its similarity to a ‘standard’ CTR. We also note that during the stakeholder engagement, QinetiQ/RAF stated that the TDAs will be used to trial a future airspace design. We understand that there is an ambition within Defence Air Traffic Management for widespread use of CTR’s around RAF airfields to reduce ATC load and to address internal MoD Duty Holder liability concerns.

The sport of gliding includes a significant amount of cross-country flying. Gliders use rising air in thermals to climb (in a similar manner to birds) and use the gliders very flat gliding angle to cover distance before again stopping to climb. Flying in rising air is fundamental to staying airborne. Whilst gliders are equipped with radios, their use during soaring activity is as distracting as mobile phones are to drivers. Most tasks are planned and flown to result in a return to base. Most gliders flying cross-country are equipped with FLARM electronic conspicuity devices that have a recording function. As a result, the BGA can collect and analyse flight traces. Details of how gliders operate is available in AIC Y 036/2020.

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Gliding traffic

The following illustration is a FLARM trace heat map of gliding activity from two recent summer seasons. The hotspot around RAF Cranwell is primarily associated with weekend-only gliding activity. Most of traffic highlighted in this heatmap is using an operating band of between 2000' and 5000' amsl.



Waddington TDA impact

A combination of controlled and restricted airspace along with the soaring conditions that exist immediately to the west of Waddington result in significant utilisation by transiting gliders. The proposed TDA will significantly impact that transiting traffic.

There are several gliding clubs near the proposed TDA. These clubs will need to be engaged by the sponsor to ensure that their specific operating needs are addressed including ongoing communications with Waddington. We can help to identify a suitable contact.

1. Buckminster gliding club
2. Cranwell gliding club
3. Darlton gliding club
4. Trent Valley gliding club

Lossiemouth TDA impact

While there is limited gliding activity likely to transit the area bounded by the TDA, the southern 'corner' of the proposed TDA covers an area of class G airspace routinely utilised by the Highland gliding club based at Easterton airfield which would become unavailable

when the TDA is active. It is possible that a glider circuit flown to the North side of the airfield would risk putting them into the TDA if it was active. It is unclear why the TDA needs to be down to surface level so far from Lossiemouth and its approach. This point and our later comments regarding the size of the TDA and any other intentions related to the TDA apply.

We recommend that the sponsor contacts the Highland gliding club. We can help to identify a suitable contact.

Why such a large volume of airspace?

We are aware that RAF Waddington based movements operate safely under IFR conditions within the existing MATZ. The Sentry and Sentinel aircraft turn on departure to climb within the MATZ. No data has been supplied to suggest why the RPAS needs such a large volume of airspace, ie similar to the Gatwick CTR. We would be grateful for more information that justifies the large volume of airspace captured within the proposed TDA.

Safety analysis

The proposed TDAs result in reduced access to actively utilised class G airspace. We would expect to see an analysis of the impact on MAC risk to aircraft operating outside proposed TDAs of this enormity.

Testing future airspace design

The ACP describes the need to establish a TDA to test an RPAS. The ACP does not describe a need to test a future airspace design. By excluding that requirement, the published information is in part misleading. We would be grateful for more information about this aspect of the ACP and why that is not described in the ACP document.

Crossing service

The proposed TDA design will result in significant levels of contact between transiting gliders and any crossing service. If the TDA dimensions were adjusted, the gliders could avoid the TDA and continue to use the known soaring conditions to the west of Waddington. This will be a safety benefit to the glider pilots and workload benefit to the crossing service provider.

Summary

1. The proposed TDA design is unreasonable and disproportionate to the need.
2. There are several questions within our response that should be answered by the sponsor.
3. An alternative TDA design bounded by the existing Lossiemouth MATZ SFC-3000' (or to FL100 if required) would appear to be appropriate.
4. An alternative TDA design bounded by the existing Waddington MATZ SFC-3000' (or to FL100 if required) and if necessary utilising the existing co-joined Cranwell MATZ would appear to be appropriate.

Yours sincerely






Archived: 26 March 2021 18:34:28

From: UAS CDC-ACP

Sent: 08 March 2021 12:45:00

To: [REDACTED]

Subject: RE: UC ACP-2020-100 Engagement Letter Response (UNCLASSIFIED)

Sensitivity: Normal

Dear Mr [REDACTED]

Many thanks for your email dated 22 Feb 2020. I can confirm that I am forwarding your request to RAF Lossiemouth and will be meeting with them to discuss this and other points this week regarding the management of the TDA this summer. I confirm that Cat A flights will always be afforded the necessary priority.

ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091
Mobile: [REDACTED]
Email: UAS CDC-ACP@qinetiq.com



Please consider the environment before printing this email.

From: [REDACTED]

Sent: 22 February 2021 08:30

To: UAS CDC-ACP <UAS CDC-ACP@qinetiq.com>

Subject: UC ACP-2020-100 Engagement Letter Response (UNCLASSIFIED)

Classification: UNCLASSIFIED

Dear Sir/ Madam,

As the operator of Police Scotland and the SCAA aircraft based at Glasgow, Perth and Aberdeen we do not feel that the Lossiemouth TDA is likely to cause any significant limitation to our Air Ambulance or Police operations provided that the Danger Area Crossing Service from Lossiemouth ATC can respect our Category A status and give us priority in the unlikely event that a Cat A HEMS or Police task within the area coincides with an RPAS movement. We should be able to give them at least 15 minutes notice.

Therefore could we request that following be integrated within your operational plans/considerations?

'The possibility exists that Police and Air Ambulance helicopters operated by Babcock Onshore are tasked into Area A of the Lossiemouth TDA on Category A missions in response to threat-to-life calls. Under normal circumstances they should be able to give at least 15 minutes notice to the DACS of any entry requirement. It is requested that RPAS operations be structured so as to afford these missions priority in the TDA.'

Many thanks for allowing us to comment on this trial. Please feel free to get back to me should you require anything further.

Rgds,

[REDACTED] | Chief Pilot

UK Aviation | Aviation
Babcock International Group

www.babcockinternational.com



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Archived: 26 March 2021 18:27:15
From: [REDACTED]
Sent: 08 March 2021 16:56:53
To: UAS CDC-ACP
Subject: Re: UC ACP-2020-100 Engagement - Stakeholder Response
Sensitivity: Normal

Dear [REDACTED]

The need to specifically prioritise is probably unlikely to arise - after all, I would imagine normal ATC management could accommodate 2 assets operating in an 18 by 10 nm box. The Waddington-based Air Ambulance would no doubt have a similar concern about their arrivals and departures, plus their (and others) need to operate down to the surface. I think, overall, being clear in advance about who is the body that decides on prioritisation is key.

Best wishes,

[REDACTED]
UK SAR
Humberside Airport

From: UAS CDC-ACP <UAS CDC-ACP@qinetiq.com>
Sent: Monday, March 8, 2021 1:21:32 PM
To: [REDACTED]
Subject: RE: UC ACP-2020-100 Engagement - Stakeholder Response

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear [REDACTED]

Thank you for your email and feedback. The change sponsor has been working closely with RAF Waddington and RAF Lossiemouth and has now secured a Danger Area Crossing Service for the duration of the TDA activations.

Your comments regarding SAR v RPAS priority are noted and in particular the event that a SAR call is activated whilst SkyGuardian is already airborne. I will bring the topic up for discussion this week with the MOD airspace managers and get back to you. I would imagine that SAR activity would take precedence and that some tactical management would take place to delay the RPAS recovery if it were not possible to recover it simultaneously.

[REDACTED]
ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091
Mobile: [REDACTED]
Email: UAS CDC-ACP@qinetiq.com



Please consider the environment before printing this email.

From: [REDACTED]
Sent: 01 March 2021 11:43
To: UAS CDC-ACP <UAS CDC-ACP@qinetiq.com>
Subject: Fw: UC ACP-2020-100 Engagement - Stakeholder Response

For the attention of the Airspace Change Manager

Please see the attached feedback form relating to the proposed TDAs at RAF Waddington in support of SkyGuardian operations, summer 2021. Having consulted with the UK SAR Fit Ops Mgr (Stu Cunliffe) and Humberside Chf Plt (Liz Forsyth), this forms the response on behalf of the Humberside base of UK Search & Rescue (Bristow Helicopters / Maritime & Coastguard Agency). This is separate from any feedback from the Inverness base of UK SAR helicopters. I will remain the Humberside POC for this ACP as well as that relating to a similar asset in 2023.

Best wishes,

[REDACTED]
Bristow Search and Rescue
Humberside International Airport
Calsthor Road
Kirmington
North Lincolnshire UK
DN39 6YG

From: [REDACTED]
Sent: 28 February 2021 16:29
To: [REDACTED]
Subject: Re: UC ACP-2020-100 Engagement - Stakeholder Response

Dear [REDACTED]

After discussion with [REDACTED] attached is my suggested response from Humberside to the proposed use of TDAs at RAF Waddington for RPAS trials over the summer. Some headlines:

- A TDA 18 x 10nm from Scampton to Cranwell to cover the operation of a SkyGuardian RPAS (ie Predator / Protector) from RAF Waddington in IFR sorties of approx 3 hours duration a few times per week.
- SkyGuardian has a Detect & Avoid capability of its own and cooperates with TCAS 2.
- A further engagement stage involved QinetiQ discussing necessary arrangements with military authorities and airspace managers: I have had no response to a request for any outcome of this. Also, the summary of stakeholder comments for the earlier event to which we were invited omitted my query about prioritising TDAs. Given that this summer's work will also inform the future Airspace Change for permanent introduction of Predator to RAF Waddington expected in 2023, I remain a little nervous.
- Other than departure and arrival, RPAS trial ops will be above FL100. The risks of air-to-air conflict therefore seem minimal, but I perceive a risk in coordination - please see the attached note.

Our response to QinetiQ is due by 12 March. If you wish me to pass Humberside's response on directly, please let me know, otherwise I'll standby.

Best wishes,

[REDACTED]

Bristow Search and Rescue
Humberside International Airport
Calsthor Road
Kirmington
North Lincolnshire UK
DN39 6YG

From: UASDCD-ACP <UASDCD-ACP@qinetiq.com>
Sent: 29 January 2021 17:28
To: UASDCD-ACP <UASDCD-ACP@qinetiq.com>
Subject: UC ACP-2020-100 Engagement Letter

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Stakeholder,

Please find attached a copy of the engagement material relating to the proposed establishment of Temporary Danger Areas (TDAs) in the vicinities of RAF Waddington and RAF Lossiemouth during the Summer 2021. You are being sent this document as a potential stakeholder.

The document explains the rationale behind the proposal and contains details of the proposed TDAs. Should you wish to comment please do so by email. A Response Form is also attached in Word format which you might find useful for your feedback, but feel free to send your comments in any written form, directly in an email if you prefer. The address at the top of the attached letter will periodically be monitored for hard copy responses.

Email responses should be sent to:

The **Airspace Change Manager** at UASDCD-ACP@qinetiq.com

Responses to the attached material should be mailed in time to reach the MOD by Friday 12 March 2021.

Live Online Engagement Opportunity

The MOD will be running a live online engagement meeting at 0900 – 1100hrs on Tuesday 9 February 2021. Your attendance is optional. An invitation will be sent to all stakeholders by 1700hrs on Friday 5 February 2021. During this online meeting the MOD will run through the proposal for the TDAs, with little additional information than enclosed at the attached, but any newly available up-to-date material will be shared. You are invited to ask questions about the proposal or to ask for clarification of the designs, which the MOD will endeavour to answer fully. **Please forward your questions in advance to the email address UASDCD-ACP@qinetiq.com**

Please Note:
The MOD is also sponsoring ACP-2019-18
"Enabling Remotely Piloted Air System Operations Out of RAF Waddington"
This ACP is completely separate.

Regards,

Ali Green

Air Traffic Management Specialist
Defence UAS Capability Development Centre

Telephone No: 01980 663091



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ACP-2020-100 Response Form

Name	[REDACTED]
Representing	Bristow Helicopters UK Search & Rescue Humberside
Address (including postcode if possible)	Humberside Airport Caistor Road Kirmington North Lincolnshire DN39 6YG
<p>Feedback:</p> <p>Concerned over:</p> <p>TDA Crossing. A Danger Area Crossing Service (DACs) will meet our needs for transit across a TDA as long as this service is assured. During stakeholder engagement, the word 'anticipated' was used on occasions: we would want to know that the TDA will not be activated without a DACs valid for the duration of the TDA (and not just for parts of the period eg only when the SkyGuardian is airborne, or in departure / approach phases of flight).</p> <p>TDA v SAROps Conflict. SAR TDAs are raised by the Distress & Diversion Cell (DDC) at the request of the Aeronautical Rescue Coordination Centre (ARCC). There should be a mechanism to arbitrate when the requirements for SAR and RPAS TDAs conflict. Such arbitration decisions would presumably involve ARCC, DDC, the DACs provider and the RPAS operating authority. None of these could expect to have, on their own, all the relevant information including RPAS remaining loiter time and serviceability of Detect & Avoid capability / TCAS, or the urgency of SAR tasking, ranging in urgency from safety of life rescue operations to returning to readiness at base post SAR action. A prior agreement or protocols of some sort might be useful when considering whether a SAR TDA must take priority over the RAF Waddington RPAS TDA, or the reverse, and also the circumstances under which both might need to overlap (such as when the RPAS is airborne but a SAR incident arises within the RPAS TDA).</p>	

Feedback on the proposed change and what is important to you should be sent to **The Airspace Change Manager** at UASCDC-ACP@qinetiq.com

Responses regarding the proposed TDA submission must be received by 12 March 2021.

Archived: 26 March 2021 18:28:05
From: [REDACTED]
Sent: 05 February 2021 19:33:50
To: UASCDC-ACP
Subject: Re: UC Skyguardian online engagement 9 Feb
Sensitivity: Normal

Good evening,
[REDACTED] would not be the POC for Inverness - [REDACTED] (at the addresses in your email) are Deputy and Chief Pilot at Inverness.

The information which you aent has been forwarded to me.
Best wishes,

[REDACTED]
Bristow UK SAR
[REDACTED]

From: UASCDC-ACP <UASCDC-ACP@qinetiq.com>
Sent: Friday, 5 February 2021, 15:51
To: [REDACTED]
Subject: RE: UC Skyguardian online engagement 9 Feb

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

[REDACTED]
Thank you for your email. I will be sending out the Webex invitations this afternoon and will include one for you.
I had [REDACTED] as the POC for Inverness (gained by telephone enquiry). Can you advise if this is not correct?
Also [REDACTED] forwarded the engagement material to [REDACTED] to respond regarding the TDA engagement. I will send them invitations too.

I hope that helps.
[REDACTED]
Air Traffic Management Specialist
Defence UAS Capability Development Centre
Telephone No: 01980 663091
Mobile N [REDACTED]



Please consider the environment before printing this email.

From: [REDACTED]
Sent: 03 February 2021 17:53
To: UASCDC-ACP <UASCDC-ACP@qinetiq.com>
Subject: Skyguardian online engagement 9 Feb

I will be glad to join this online engagement session on 9 Feb - invitations due out on Friday I believe. Are you inviting someone from Inverness SAR base too (also Bristow)? If I would be representing both bases I'll need to confer with them (their area and training routines are rather different to ours).

Best wishes,
[REDACTED]
Bristow UK SAR
Humberside Airport
[REDACTED]

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Archived: 26 March 2021 20:27:10

From: UAS CDC-ACP

Sent: 26 March 2021 20:26:00

To: [REDACTED]
Subject: FW: ACP-2020-100 RESPONSE FORM

Response requested: No

Sensitivity: Normal

Attachments:

[EGNJ ACP Response Form.doc](#)

[REDACTED]

Some inbox tyding. Would you bear this feedback from Humberside in mind in your planning for SkyGuardian?

[REDACTED]

ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091

[REDACTED]



 Please consider the environment before printing this email.

From: [REDACTED]
Sent: 04 March 2021 14:54
To: UAS CDC-ACP <UAS CDC-ACP@qinetiq.com>
Subject: ACP-2020-100 RESPONSE FORM

Dear Sir/Madam

Please find attached the response from Humberside International Airport to the ACP.

Regards

[REDACTED]
ATCO

[REDACTED]

Archived: 26 March 2021 20:25:05
From: [UAS CDC-ACP](#)
Sent: 08 March 2021 13:25:00
To: [REDACTED]
Subject: RE: UC ACP-2020-100 RESPONSE FORM
Sensitivity: Normal

Dear [REDACTED]

Small world isn't it? Hope this email finds you well [REDACTED]

Thank you for your email and feedback attached. I will forward it today to the RAF Waddington ATC POC and let you know the response. I'm sure they will agree.

[REDACTED]

ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091
Mobile: [REDACTED]
Email: UAS CDC-ACP@qinetiq.com



 Please consider the environment before printing this email.

From: [REDACTED]
Sent: 04 March 2021 14:54
To: UAS CDC-ACP <UAS CDC-ACP@qinetiq.com>
Subject: ACP-2020-100 RESPONSE FORM

Dear Sir/Madam

Please find attached the response from Humberside International Airport to the ACP.

Regards

[REDACTED]

[REDACTED]

ACP-2020-100 Response Form

NAME	[REDACTED] [REDACTED]
REPRESENTING	ATSM HUMBERSIDE INTERNATIONAL AIRPORT
ADDRESS	KIRMINGTON North Lincolnshire DN39 6YH [REDACTED]
<p>Feedback:</p> <p>As a stakeholder in this process, we have concluded an internal impact assessment for the Temporary Danger Area (TDA) proposed by MoD / RAF Waddington for implementation from July to September 2021.</p> <p>Humberside understands the rationale for the establishment of this TDA and the requirement to be flexible in the proposed vertical extent of its operation.</p> <p>We have no objection to ACP-2020-100.</p> <p>All commercial traffic, departing / arriving at Humberside is in receipt of a mandatory Deconfliction Service (DS), therefore we request that when we are operating such traffic to the south of Humberside, Waddington proactively accommodate transit requests under the Danger Area Crossing Service (DACs) remit.</p>	

Signature: *Signed electronically*

Name: [REDACTED]

Title: ATCO

Date: 03 Mar 2021

Archived: 26 March 2021 18:22:21
From: UAS CDC-ACP
Sent: 08 March 2021 13:59:00
To: [REDACTED]
Subject: RE: UC ACP-2020-100-RAF Waddington TDA
Sensitivity: Normal

Mr [REDACTED]

I also intended to point you in the direction of the following document, which contains a good amount of information following a Webex held on 9 Feb 2021 for the civilian aviation stakeholders.

<https://airspacechange.caa.co.uk/umbraco/Surface/DocumentSurface/DownloadDocument/2776>

Para 14 gives some detail specifically about climb and descent times for Areas A & B.

[REDACTED]

ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091
[REDACTED]



Please consider the environment before printing this email.

From: [REDACTED] >
Sent: 04 March 2021 20:19
To: UAS CDC-ACP <UAS CDC-ACP@qinetiq.com>; [REDACTED]
Subject: ACP-2020-100-RAF Waddington TDA

Airspace Change Manager

Dear Sir

Name: [REDACTED]

Representing: Buckminster Gliding Club (BGC)

Address:
[REDACTED]

I am responding following consideration of the Airspace Change Proposal ACP-202-100 as it affects Buckminster Gliding Club. I understand that the British Gliding Association Chief Executive, Pete Stratten, had a conversation with you today at which he took an action 'to nudge BGC' for a response. Initially I was very concerned about the amount of airspace that was proposed to be utilised in order for the RPAS to operate into and out of Waddington (the same argument applies to Lossiemouth but that TDA will not directly affect BGC). An update from Pete Stratten has suggested that the intent is to operate on 17/18 Jul with a potential reduction in lateral dimensions thereafter. This would be welcomed but I offer the following observations:

- The TDA needs to be active for the minimum amount of time. I would have thought that the RPAS rate of climb would be sufficient for it to launch in a 15-minute window and recover in a similar amount of time. I have spoken with a number of Reaper operators and it does not take long to launch. This would minimise the restrictions to GA pilots having to avoid the Waddington area. What does need to be avoided is excessively long activations 'just in case' to cater for unforeseen circumstances. It would be unreasonable to prevent GA pilots operating in the area or transiting through the overhead if the RPAS was not operating or just being prepared. Gliders can fly for significant distances on good days and to have a massive column of airspace denied to them for significant amounts of time would be unreasonable.
- The TDA should not be active between launch and recovery. This would, again, deny normally accessible airspace to the GA community for an excessive amount of time. Whilst I recognise that the RPAS will not be flying for 'operational periods of time' it would be unreasonable to deny the airspace to GA users if it was not being directly utilised by the RPAS
- The lateral dimensions of airspace need to be as small as practical. The RPAS is reasonably manoeuvrable - certainly more so than Rivet Joint and Sentry which also operate at Waddington - and can operate in a relatively small column of airspace, certainly within the radius of a 'standard MATZ'. An easy way to allow safe climb out and recovery would be to maintain a 'standard MATZ' and add the FL100/5nm radius column on top. That way the RPAS can get airborne normally and climb to 3000ft and then spiral climb. Similarly, it can spiral down to 3000ft and then use 'standard MATZ' to position for whatever pattern is needed but still have the protection of the MATZ. This would allow GA operators to fly over the 'pan handles' offering greater navigational freedom, reduce congestion in reduced 'open airspace' and avoid the creation of choke points which would increase the flight safety hazard to GA operators - a consequence of the increasing level of segregated airspace across the UK. You will already have seen the amount of glider activity immediately to the west of Waddington from the BGA- submitted 'heat map'.

I recognise the need for protection of the RPAS until such time as it is cleared for operations without restriction (with a 'see and avoid' capability). However, this must not be at the expense of the GA pilot who has just as much right to fly safely without enforced restriction and without being 'pushed' into conflict with other airspace users due to the reduction in 'free airspace'.

I would welcome any update as it becomes available and trust that my concerns are considered in the round during this consultative process. Finally, I would welcome any invitation to contribute to the process further

Yours aye
[REDACTED]

Archived: 26 March 2021 18:21:58
From: UAS CDC-ACP
Sent: 08 March 2021 13:50:00
To: [REDACTED]
Subject: RE: UC ACP-2020-100-RAF Waddington TDA
Sensitivity: Normal

Dear Mr [REDACTED]

Thank you for your email and feedback enclosed. The change sponsor has been working closely with RAF Waddington and RAF Lossiemouth and has secured a Danger Area Crossing Service for the duration of the TDA activations. The activation periods, however, are likely to be for the full duration of the SkyGuardian sorties. The systems currently in place in the UK (and Europe) for the management of segregated airspace are not at the stage of sophistication that enables rapid (and safe) switching on and off at short notice. NOTAMS must be promulgated 24 hrs in advance. That said, the MOD is meeting with aeronautical information specialists this week to identify if there is a suitable means of providing more flexibility along the lines you suggest. It is also in the interests of the MOD to achieve this, if possible, since the provision of a DACS for extended periods is very manpower resource-hungry. I will provide an update.

Options to adjust the size of both Areas A & B are also being assessed. An update should be forthcoming by the end of this week.

I appreciate the impact that the TDAs may have on gliding operations at both locations. It was very useful to meet with representatives from the gliding and hang gliding/paragliding community last week. They gave us plenty to consider; the MOD is certainly looking at means to minimise the impact on all airspace users.

I have been using the following email address for Buckminster Gliding Club: manager@buckminstergc.co.uk. Would you prefer me to use yours instead (or in addition)? I also note another email address on your email dated 4 March. Would you like me to record that as an additional POC?

[REDACTED]

ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091
Mobile: [REDACTED]
Email: UAS CDC-ACP@qinetiq.com



Please consider the environment before printing this email.

From: Roger [REDACTED]
Sent: 04 March 2021 20:19
To: UAS CDC-ACP <UAS CDC-ACP@qinetiq.com>; [REDACTED]
Subject: ACP-2020-100-RAF Waddington TDA

Airspace Change Manager

Dear Sir

Name: [REDACTED]

Representing: Buckminster Gliding Club (BGC)



I am responding following consideration of the Airspace Change Proposal ACP-202-100 as it affects Buckminster Gliding Club. I understand that the British Gliding Association Chief Executive, Pete Stratten, had a conversation with you today at which he took an action 'to nudge BGC' for a response. Initially I was very concerned about the amount of airspace that was proposed to be utilised in order for the RPAS to operate into and out of Waddington (the same argument applies to Lossiemouth but that TDA will not directly affect BGC). An update from Pete Stratten has suggested that the intent is to operate on 17/18 Jul with a potential reduction in lateral dimensions thereafter. This would be welcomed but I offer the following observations:

- The TDA needs to be active for the minimum amount of time. I would have thought that the RPAS rate of climb would be sufficient for it to launch in a 15-minute window and recover in a similar amount of time. I have spoken with a number of Reaper operators and it does not take long to launch. This would minimise the restrictions to GA pilots having to avoid the Waddington area. What does need to be avoided is excessively long activations 'just in case' to cater for unforeseen circumstances. It would be unreasonable to prevent GA pilots operating in the area or transiting through the overhead if the RPAS was not operating or just being prepared. Gliders can fly for significant distances on good days and to have a massive column of airspace denied to them for significant amounts of time would be unreasonable.
- The TDA should not be active between launch and recovery. This would, again, deny normally accessible airspace to the GA community for an excessive amount of time. Whilst I recognise that the RPAS will not be flying for 'operational periods of time' it would be unreasonable to deny the airspace to GA users if it was not being directly utilised by the RPAS
- The lateral dimensions of airspace need to be as small as practical. The RPAS is reasonably manoeuvrable - certainly more so than Rivet Joint and Sentry which also operate at Waddington - and can operate in a relatively small column of airspace, certainly within the radius of a 'standard MATZ'. An easy way to allow safe climb out and recovery would be to maintain a 'standard MATZ' and add the FL100/5nm radius column on top. That way the RPAS and get airborne normally and climb to 3000ft and then spiral climb. Similarly, it can spiral down to 3000ft and then use 'standard MATZ' to position for whatever pattern is needed but still have the protection of the MATZ. This would allow GA operators to fly over the 'pan handles' offering greater navigational freedom, reduce congestion in reduced 'open airspace' and avoid the creation of choke points which would increase the flight safety hazard to GA operators - a consequence of the increasing level of segregated airspace across the UK. You will already have seen the amount of glider activity immediately to the west of Waddington from the BGA- submitted 'heat map'.

I recognise the need for protection of the RPAS until such time as it is cleared for operations without restriction (with a 'see and avoid' capability). However, this must not be at the expense of the GA pilot who has just as much right to fly safely without enforced restriction and without being 'pushed' into conflict with other airspace users due to the reduction in 'free airspace'.

I would welcome any update as it becomes available and trust that my concerns are considered in the round during this consultative process. Finally, I would welcome any invitation to contribute to the process further

Yours aye

[REDACTED]

Archived: 26 March 2021 20:07:01
From: HESELTINE, Alan J M
Sent: 12 March 2021 12:05:29
To: UASDCD-ACP
Cc: [REDACTED]
Subject: RE: UC ACP-2020-100 Engagement Letter
Sensitivity: Normal
Attachments:
[ACP-2020-100 Stakeholder Engagement Response Form.docx](#)

Hi [REDACTED]

Please find attached the TDA consultation response from NATS Aberdeen. We don't believe there will be an impact from the establishment of the TDA.

Kind Regards

 NATS

[REDACTED]
Manager ATC

[REDACTED]
E [REDACTED]

Control Tower Building,
Aberdeen Airport
Dyce, Aberdeen AB21 7DU
www.nats.co.uk



NATS PRIVATE

From: UASDCD-ACP <UASDCD-ACP@qinetiq.com>
Sent: 01 February 2021 12:37
To: [REDACTED]
Subject: UC ACP-2020-100 Engagement Letter

Your attachments have been security checked by Mimecast Attachment Protection. Files where no threat or malware was detected are attached.

Dear [REDACTED]

I was struggling to find a useful POC for this engagement letter regarding a proposed TDA at Lossiemouth this summer. I called the number for NATS found in the BINA and a helpful gentleman gave me your details. I hope I have reached the right area of interest. If not, would you a) let me know or b) forward as appropriate?

Regards,

[REDACTED]
ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091
Email: UASDCD-ACP@qinetiq.com

 UAS CDC

 Please consider the environment before printing this email.

From: UASDCD-ACP
Sent: 29 January 2021 17:28
To: UASDCD-ACP <UASDCD-ACP@qinetiq.com>
Subject: UC ACP-2020-100 Engagement Letter

Dear Stakeholder,

Please find attached a copy of the engagement material relating to the proposed establishment of Temporary Danger Areas (TDAs) in the vicinities of RAF Waddington and RAF Lossiemouth during the Summer 2021. You are being sent this document as a potential stakeholder.

The document explains the rationale behind the proposal and contains details of the proposed TDAs. Should you wish to comment please do so by email. A Response Form is also attached in Word format which you might find useful for your feedback, but feel free to send your comments in any written form, directly in an email if you prefer. The address at the top of the attached letter will periodically be monitored for hard copy responses.

Email responses should be sent to:

The Airspace Change Manager at UASDCD-ACP@qinetiq.com

Responses to the attached material should be mailed in time to reach the MOD by Friday 12 March 2021.

Live Online Engagement Opportunity

The MOD will be running a live online engagement meeting at 0900 – 1100hrs on Tuesday 9 February 2021. Your attendance is optional. An invitation will be sent to all stakeholders by 1700hrs on Friday 5 February 2021. During this online meeting the MOD will run through the proposal for the TDAs, with little additional information than enclosed at the attached, but any newly available up-to-date material will be shared. You are invited to ask questions about the proposal or to ask for clarification of the designs, which the MOD will endeavour to answer fully. **Please forward your questions in advance to the email address UASDCD-ACP@qinetiq.com**

Regards,

[REDACTED]
Air Traffic Management Specialist
Defence UAS Capability Development Centre

Telephone No: 01980 663091



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ACP-2020-100 Response Form

Name	██████████
Representing	NATS Aberdeen
Address (including postcode if possible)	NATS Control Tower Building, Aberdeen Airport, Dyce, Aberdeen. AB21 7DU
Feedback: Considering the proposed TDA at RAF Lossiemouth, it has been assessed that there would be no impact on the NATS Aberdeen operation.	

Feedback on the proposed change and what is important to you should be sent to
The Airspace Change Manager at UASCDC-ACP@qinetiq.com

Responses regarding the proposed TDA submission must be received by 12 March 2021.

Archiv [REDACTED]

Sent: 08 March 2021 16:49:48
To: UASDCD-ACP; HESELTINE, Alun J M
Subject: RE: UC ACP-2020-100 Engagement Letter
Sensitivity: Normal

Hello Al,

Just to confirm I've also received the engagement information [REDACTED] Alun and I have also discussed the Webex you held last month to help inform our response.

Best regards,

[REDACTED]


[REDACTED]
Control Tower Building,
Aberdeen Airport,
Dyce, AB21 7DU.
www.nats.co.uk



From: UASDCD-ACP <UASDCD-ACP@qinetiq.com>
Sent: 08 March 2021 16:05
To: [REDACTED]
Subject: RE: UC ACP-2020-100 Engagement Letter

Dear [REDACTED]

I'm just catching up with some Mailbox housekeeping and wanted to let you know that several emails have bounced back from [REDACTED] address. Could you both advise if you received the engagement material okay?

[REDACTED]
ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 [REDACTED]
[REDACTED]@qinetiq.com



 Please consider the environment before printing this email.

From: [REDACTED]
Sent: 02 February 2021 07:06
To: UASDCD-ACP <UASDCD-ACP@qinetiq.com>; [REDACTED]
Subject: RE: UC ACP-2020-100 Engagement Letter

You've come to the right place for engagement for NATS Aberdeen, I've also received the same info from our HQ so it looks like all the right people have been contacted within NATS. I'm not sure if the company wants a consolidated single NATS response, or if we'll respond directly solely on behalf of NATS Aberdeen, but one way or another we will assess the proposal and respond in some form.

Kind Regards

[REDACTED]


[REDACTED]
Control Tower Building,
Aberdeen Airport
Dyce, Aberdeen AB21 7DU
www.nats.co.uk



NATS PRIVATE

From: UASDCD-ACP <UASDCD-ACP@qinetiq.com>
Sent: 01 February 2021 12:37
To: [REDACTED]
Subject: UC ACP-2020-100 Engagement Letter

Mimecast Attachment Protection has deemed this file to be safe, but always exercise caution when opening files.

Dear [REDACTED]

I was struggling to find a useful POC for this engagement letter regarding a proposed TDA at Lossiemouth this summer. I called the number for NATS found in the BINA and a helpful gentleman gave me your details. I hope I have reached the right area of interest. If not, would you a) let me know or b) forward as appropriate?

Regards,

[REDACTED]
ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091

Email: UAS CDC-ACP@qinetiq.com



 Please consider the environment before printing this email.

From: UAS CDC-ACP
Sent: 29 January 2021 17:28
To: UAS CDC-ACP <UAS CDC-ACP@qinetiq.com>
Subject: UC ACP-2020-100 Engagement Letter

Dear Stakeholder,

Please find attached a copy of the engagement material relating to the proposed establishment of Temporary Danger Areas (TDAs) in the vicinities of RAF Waddington and RAF Lossiemouth during the Summer 2021. You are being sent this document as a potential stakeholder.

The document explains the rationale behind the proposal and contains details of the proposed TDAs. Should you wish to comment please do so by email. A Response Form is also attached in Word format which you might find useful for your feedback, but feel free to send your comments in any written form, directly in an email if you prefer. The address at the top of the attached letter will periodically be monitored for hard copy responses.

Email responses should be sent to:
The Airspace Change Manager at UAS CDC-ACP@qinetiq.com

Responses to the attached material should be mailed in time to reach the MOD by Friday 12 March 2021.

Live Online Engagement Opportunity

The MOD will be running a live online engagement meeting at 0900 – 1100hrs on Tuesday 9 February 2021. Your attendance is optional. An invitation will be sent to all stakeholders by 1700hrs on Friday 5 February 2021. During this online meeting the MOD will run through the proposal for the TDAs, with little additional information than enclosed at the attached, but any newly available up-to-date material will be shared. You are invited to ask questions about the proposal or to ask for clarification of the designs, which the MOD will endeavour to answer fully. **Please forward your questions in advance to the email address UAS CDC-ACP@qinetiq.com**

Regards,

Ali Green

Air Traffic Management Specialist
Defence UAS Capability Development Centre

Telephone No: 01980 663091



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Archived: 26 March 2021 18:36:00
From: UASDCD-ACP
Sent: 16 February 2021 19:18:00
To: [REDACTED]
Subject: RE: UC LNAA - TDA RAF Waddington
Sensitivity: Normal

Dear [REDACTED]

Thank you for your emails. You are on my list for all future communications and I will certainly be in touch to clarify procedures for your operations in and out of Waddington.

I will keep you advised on any potential developments with the design and operation of the TDAs.

Regards,
[REDACTED]

ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091
Email: UASDCD-ACP@qinetiq.com

Please consider the environment before printing this email.

-----Original Message-----
From: [REDACTED]
Sent: 09 February 2021 11:09
To: UASDCD-ACP <UASDCD-ACP@qinetiq.com>
Subject: Re: UC LNAA - TDA RAF Waddington

Dear [REDACTED]

Thanks for the presentation.

I represent Lines & Notts Air Ambulance and we as a service, and thus UK patients in need of critical care stand to be potentially affected by this TDA and operation.

I would be grateful if you could keep me updated and in the loop as things progress so as we can engage with you for the safe and continued operation of our emergency service.

Originally I didn't receive the notice of this meeting but got it through the the Operations Manager at the charity. I work for the AOC holder SAS and am responsible for the aviation side of our operation, to that end could you please include my details and this email in future correspondents.

Best regards,
[REDACTED]

> On 8 Feb 2021, at 16:26, UASDCD-ACP <UASDCD-ACP@qinetiq.com> wrote:
>
> Dear [REDACTED]
>
> Thank you for your email. I will forward the dial-in details shortly. I have also added your questions to our list for tomorrow, although they will be answered towards the end of the brief and therefore you may have had to leave by then.
>
> Rest assured that we are in close communication with RAF Waddington and will update you on agreed procedures as soon as possible.
>
> [REDACTED]
>
> Air Traffic Management Specialist
> Defence UAS Capability Development Centre
>
>
> Telephone No: 01980 663091
> Mobile No: [REDACTED]
> Email: agreen6@qinetiQ.com
>
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[REDACTED]

Unit Chief Pilot - Lines & Notts Air Ambulance
[REDACTED]
[REDACTED]

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-----Original Message-----
From: [REDACTED]
> Sent: 08 February 2021 14:57
> To: UASDCD-ACP <UASDCD-ACP@qinetiq.com>
> Subject: LNAA - TDA RAF Waddington
>

> To whom it may concern,
>
> Please find attached a couple of questions from me reference the TDA and the Air Ambulance operation.
>
> I would like to attend, at least the first portion of the meeting tomorrow if there is a dial in function?
>
> Best regards,
> [REDACTED]
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[REDACTED]
>
> Unit Chief Pilot - Lincs & Notts Air Ambulance
>

[REDACTED]
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> Ivclay Road, Farnborough, Hampshire, GU14 0LX <https://www.qinetiq.com>

ACP-2020-100 Response Form

Name	[REDACTED]
Representing	Lincs & Notts Air Ambulance
Address (including postcode if possible)	RAF Waddington.
Feedback:	
<p>The Engagement Letter states it is anticipated that ATC will be active anytime SkyGuardian flies, is this likely to be nailed down to a more mandatory requirement? Such as the TDA only being active if ATC are manned? Air systems such as us are based within the Part A of the proposed TDA and have no pre-planning for departure due to the nature of our operation. The concern is that the TDA is legally active but Waddington are on blind calls when we need to take off or return through the ATZ.</p> <p>At what height AGL would the SkyGuardian need to be to satisfy ATC should it be operating inside Part A when Helimed 29Alpha requests departure. For example, the Red Arrows will often hold at 1,000' AGL whilst we transit R313 at 500' AGL etc. Could a similar arrangement be put in place so Helimed 29Alpha could continue to operate as before?</p> <p>By the time SkyGuardian is based here, LNAA will have relocated outside of the fence line but within the MATZ & ATZ and we intend to operate exactly as we do now.</p>	

A large, empty rectangular box with a thin black border, intended for providing feedback on a proposed change. The box is currently blank.

Feedback on the proposed change and what is important to you should be sent to
The Airspace Change Manager at UASCDC-ACP@qinetiq.com

Responses regarding the proposed TDA submission must be received by 12 March 2021.

Archived: 26 March 2021 18:38:32
From: [REDACTED]
Sent: 09 February 2021 11:09:46
To: UASDCD-ACP
Subject: Re: UC LNAA - TDA RAF Waddington
Sensitivity: Normal

Dear [REDACTED]

Thanks for the presentation.

I represent Lincs & Notts Air Ambulance and we as a service, and thus UK patients in need of critical care stand to be potentially affected by this TDA and operation.

I would be grateful if you could keep me updated and in the loop as things progress so as we can engage with you for the safe and continued operation of our emergency service.

Originally I didn't receive the notice of this meeting but got it through the the Operations Manager at the charity. I work for the AOC holder SAS and am responsible for the aviation side of our operation, to that end could you please include my details and this email in future correspondents.

Best regards,
[REDACTED]

> On 8 Feb 2021, at 16:26, UASDCD-ACP <UASDCD-ACP@qinetiq.com> wrote:

>
> Dear [REDACTED]
>
> Thank you for your email. I will forward the dial-in details shortly. I have also added your questions to our list for tomorrow, although they will be answered towards the end of the brief and therefore you may have had to leave by then.
>
> Rest assured that we are in close communication with RAF Waddington and will update you on agreed procedures as soon as possible.
>

> [REDACTED]
>
> Air Traffic Management Specialist
> Defence UAS Capability Development Centre
>
>
> Telephone No: 01980 663091
> Mobile No: [REDACTED]
> Email: agreen6@qinetiq.com
>

> Please consider the environment before printing this email.
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>

[REDACTED]
Unit Chief Pilot - Lincs & Notts Air Ambulance
[REDACTED]
[REDACTED]

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Registered office: Gloucestershire Airport, Staverton, Cheltenham, Gloucestershire GL51 6SS

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-----Original Message-----
> From: [REDACTED]
> Sent: 08 February 2021 14:57
> To: UASDCD-ACP <UASDCD-ACP@qinetiq.com>
> Cc: [REDACTED]
> Subject: LNAA - TDA RAF Waddington
>

> To whom it may concern,
>
> Please find attached a couple of questions from me reference the TDA and the Air Ambulance operation.
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> I would like to attend, at least the first portion of the meeting tomorrow if there is a dial in function?
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> Best regards,
> [REDACTED]
>
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>
> [REDACTED]
> [REDACTED]
> [REDACTED]
> [REDACTED]
>

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> Park, Ivelly Road, Farnborough, Hampshire, GU14 0LX <https://www.qinetiq.com>

Archived: 26 March 2021 18:38:48
From: [REDACTED]
Sent: 08 February 2021 17:10:39
To: UASDCD-ACP
Subject: Re: UC LNAA - TDA RAF Waddington
Sensitivity: Normal

Thanks [REDACTED]

I'm content that my questions were quite basic and will of course find answers before we see a drone flying around Waddington!

I'll get on as much of the call tomorrow as possible and await the dial in details.

Best,
[REDACTED]

> On 8 Feb 2021, at 16:26, UASDCD-ACP <UASDCD-ACP@qinetiq.com> wrote:

>
> [REDACTED]
>
> Thank you for your email. I will forward the dial-in details shortly. I have also added your questions to our list for tomorrow, although they will be answered towards the end of the brief and therefore you may have had to leave by then.

>
> Rest assured that we are in close communication with RAF Waddington and will update you on agreed procedures as soon as possible.

>
> A [REDACTED]
>
> Air Traffic Management Specialist
> Defence UAS Capability Development Centre

>
> Telephone No: 01980 663091
> Mobile No: [REDACTED]
> Email: agreen6@qinetiQ.com

> Please consider the environment before printing this email.

>
> [REDACTED]
Unit Chief Pilot - Lincs & Notts Air Ambulance

[REDACTED]
[REDACTED]m

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-----Original Message-----
> From: [REDACTED]
> Sent: 08 February 2021 14:57
> To: UASDCD-ACP <UASDCD-ACP@qinetiq.com>
> Cc: [REDACTED]
> Subject: LNAA - TDA RAF Waddington

>
> To whom it may concern,
>
> Please find attached a couple of questions from me reference the TDA and the Air Ambulance operation.

>
> I would like to attend, at least the first portion of the meeting tomorrow if there is a dial in function?

>
> Best regards,
> [REDACTED]

>
> [REDACTED]
>
> Unit Chief Pilot - Lincs & Notts Air Ambulance

>
> [REDACTED]
>

[REDACTED]
[REDACTED]

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Archived: 26 March 2021 18:36:21
From: UASDCD-ACP
Sent: 08 February 2021 16:26:00
To: [REDACTED]
Subject: RE: UC LNAA - TDA RAF Waddington
Sensitivity: Normal

Dear [REDACTED]

Thank you for your email. I will forward the dial-in details shortly. I have also added your questions to our list for tomorrow, although they will be answered towards the end of the brief and therefore you may have had to leave by then.

Rest assured that we are in close communication with RAF Waddington and will update you on agreed procedures as soon as possible.

[REDACTED]
Air Traffic Management Specialist
Defence UAS Capability Development Centre

Telephone No: 01980 663091
Mobile N [REDACTED]
Email: agreen6@qinetiQ.com

Please consider the environment before printing this email.

-----Original Message-----

From: [REDACTED]
Sent: 08 February 2021 14:57
To: UASDCD-ACP <UASDCD-ACP@qinetiQ.com>
Cc: [REDACTED]
Subject: LNAA - TDA RAF Waddington

To whom it may concern,

Please find attached a couple of questions from me reference the TDA and the Air Ambulance operation.

I would like to attend, at least the first portion of the meeting tomorrow if there is a dial in function?

Best regards,
[REDACTED]

[REDACTED]
Unit Chief Pilot - Lincs & Notts Air Ambulance
[REDACTED]
[REDACTED]

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Archived: 26 March 2021 20:30:19

From: UASCDC-ACP

Sent: 17 March [REDACTED]

Cc: [REDACTED]

Subject: RE: UC ACP-2020-100 Stakeholder Engagement Response Form

Sensitivity: Normal

Dear [REDACTED]

Thank you for your email and feedback attached on the MOD engagement material for ACP-2020-100.

In answer to your first question, SkyGuardian's activity will not be contained solely within the TDAs. Whilst at Lossiemouth it will be flown in support of Exercise Joint Warrior and so it will transit to the exercise area(s) under the control of RAF Lossiemouth and/or Swanwick (Military). If approved, the TDA will be established to accommodate its departure and recovery profiles.

I have just forwarded your email to RAF Lossiemouth's SATCO, who will be best placed to respond to the last 2 questions.

[REDACTED]

ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 [REDACTED]

[REDACTED]



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From: [REDACTED]

Sent: 11 March 2021 18:56

To: UASCDC-ACP <UASCDC-ACP@qinetiq.com>

Subject: ACP-2020-100 Stakeholder Engagement Response Form

Good evening,

Please find the Response from Inverness ATC attached.

Archived: 26 March 2021 20:32:25

From: [REDACTED]
Sent: 09 February [REDACTED]

Subject: RE: UC ACP-2021-100 - SkyGuardian TDA Webex
Response requested: Yes
Sensitivity: Normal

Good afternoon,

Unfortunately despite my best efforts I was unable to attend the webex this morning – Is there a slide pack or similar available for me to allow myself to catch up?

Kind regards,

Kind regards,

[REDACTED]

-----Original Appointment-----

From: [REDACTED]
Sent: 08 February 2021 20:11
To: [REDACTED]
Cc: [REDACTED]
Subject: UC ACP-2021-100 - SkyGuardian TDA Webex
When: 09 February 2021 09:00-11:00 (UTC+00:00) Dublin, Edinburgh, Lisbon, London.
Where: beeee

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Dear aviation stakeholder,

As promised, here is the agenda:

- Introductions & Webex protocols
- SkyGuardian v Protector (different ACPs)
- ACP process for a TDA
- Brief on TDA requirement, design and operation
- TDA Management
- Draft flying schedule
- Questions received to date

This is your invitation to join the Webex for ACP-2020-100 (SkyGuardian TDAs). Please find below details of how to join the Webex, either online or by telephone. You will be able to join from 0845hrs on the day. It may be worth trying to join a little early in order to avoid last minute glitches and missing the beginning of the meeting. You will be automatically muted on entry. The meeting will start promptly at 0900hrs.

Please ensure any questions you would like addressing during the meeting are forwarded in writing to UASCDC-ACP@qinetiq.com by midday on Monday 8 Feb 2021.

The draft agenda for the meeting will be sent out with an update on Monday afternoon.

[REDACTED]

ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091
Email: UASCDC-ACP@qinetiq.com



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-- Do not delete or change any of the following text. --

When it's time, join your Webex meeting here.

[Join meeting](#)

More ways to join:

Join from the meeting link
<https://qinetiquk.webex.com/join?MTID=m491168eb932d55fcfd23c4320ec7a5e>

Join by meeting number
Meeting number (access code): 181 653 2256
Meeting password: 2pSQWWx2NbY9 (27779992 from phones and video systems)

Tap to join from a mobile device (attendees only)
[+44-20-7660-8149.1816532256#27779992#](tel:+442076608149181653225627779992) United Kingdom Toll
Some mobile devices may ask attendees to enter a numeric meeting password.

Join by phone
+44-20-7660-8149 United Kingdom Toll
[Global call-in numbers](#)

Join from a video system or application

Dial [1816532256@qinetiq.webex.com](tel:1816532256)

You can also dial 62.109.219.4 and enter your meeting number.

Join using Microsoft Lync or Microsoft Skype for Business

Dial [1816532256.qinetiq@lync.webex.com](tel:1816532256)

If you are a host, [click here](#) to view host information.

Need help? Go to <https://help.webex.com>

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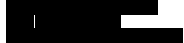
Archived: 26 March 2021 19:01:55
From: UAS CDC-ACP
Sent: 17 March 2021 19:15:00
T [REDACTED]
Subject: RE: UC ACP-2020-100 Engagement Letter
Sensitivity: Normal

Dear [REDACTED]

Yes you were a busy bee last week!

I will try to obtain answers to your questions asap or endeavour to ensure that you get sight of the relevant information that GA has supplied to the CAA. Standby.

[REDACTED]
ATM Specialist and ACP Manager
Defence UAS Capability Development Centre



Please consider the environment before printing this email.

From: [REDACTED] >
Sent: 11 March 2021 15:35
To: UAS CDC-ACP <UAS CDC-ACP@qinetiq.com>
Subject: RE: UC ACP-2020-100 Engagement Letter

Hi [REDACTED]

Lots of emails from me today! Please find attached the NATS NERL response to the ACP.

Regards



NATS PRIVATE

From: UAS CDC-ACP <UAS CDC-ACP@qinetiq.com>
Sent: 29 January 2021 17:11
To: UAS CDC-ACP <UAS CDC-ACP@qinetiq.com>
Subject: UC ACP-2020-100 Engagement Letter

Your attachments have been security checked by Mimecast Attachment Protection. Files where no threat or malware was detected are attached.

Dear Stakeholder,

Please find attached a copy of the engagement material relating to the proposed establishment of Temporary Danger Areas (TDAs) in the vicinities of RAF Waddington and RAF Lossiemouth during the Summer 2021. You are being sent this document as a potential stakeholder.

The document explains the rationale behind the proposal and contains details of the proposed TDAs. Should you wish to comment please do so by email. A Response Form is also attached in Word format which you might find useful for your feedback, but feel free to send your comments in any written form, directly in an email if you prefer. The address at the top of the attached letter will periodically be monitored for hard copy responses.

Email responses should be sent to:

The **Airspace Change Manager** at UAS CDC-ACP@qinetiq.com

Responses to the attached material should be mailed in time to reach the MOD by Friday 12 March 2021.

Live Online Engagement Opportunity

The MOD will be running a live online engagement meeting at 0900 – 1100hrs on Tuesday 9 February 2021. Your attendance is optional. An invitation will be sent to all stakeholders by 1700hrs on Friday 5 February 2021. During this online meeting the MOD will run through the proposal for the TDAs, with little additional information than enclosed at the attached, but any newly available up-to-date material will be shared. You are invited to ask questions about the proposal or to ask for clarification of the designs, which the MOD will endeavour to answer fully. **Please forward your questions in advance to the email address UAS CDC-ACP@qinetiq.com**

Regards,



Air Traffic Management Specialist
Defence UAS Capability Development Centre

Telephone No: 01980 663091



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ACP-2020-100 Response Form

Name	[REDACTED]
Representing	NATS
Address (including postcode if possible)	WFH – Please use email [REDACTED]
<p>Feedback:</p> <p>This NATS NERL response only relates to the proposed TDAs and OAT flights under the control of SWN MIL to/from the TDAs.</p> <p>TDAs: The TDAs have been assessed as having no impact on the NERL network. However, NATS would seek clarification on the following items,</p> <ol style="list-style-type: none"> 1. What climb and descent profiles have been used to design the size of the TDA from SFC to FL100. 2. Is there a special SSR Code to allow other ANSPs sight of the UAS when airborne? 3. What limitations did the FAA put on this platform and what were the rationale behind them. Are they applicable for the UK? 4. What is the specific PBN capability of the airframe? 5. Is it the intention to file a FPL for each mission? 6. What flight category and status will the aircraft be under? 7. How will access be coordinated into CAS under the control of SWN Mil? 8. How will emergency considerations and malfunctions be addressed? 9. What will happen in the event of a lost link? 10. Has any assessment been made regarding the interaction of the airframe and TCAS events? 11. Have any additional separation standards been imposed by the FAA? 12. With regards to the TDA at Waddington, <ol style="list-style-type: none"> a. what engagement has there been between the MOD and Doncaster ATC to mitigate against traffic joining CAS? b. What safety assessment has been made regarding the availability of airspace for other MOD assets in the area and the potential for airspace infringements? <p>In addition, NATS understands that the airframe (subject to authorisation from the CAA) will be permitted to fly in accordance with FAA certification. In allowing access to Airspace controlled by NATS (under a cleared flight path), NATS would</p> <ol style="list-style-type: none"> 1. Seek clarification on any limits imposed by that certification. 2. Request access to the safety arguments made to permit the aircraft to fly IFR within CAS in order that all risks can be identified and mitigated at an early stage. 	

A large, empty rectangular box with a thin black border, intended for providing feedback on a proposed change. The box is currently blank.

Feedback on the proposed change and what is important to you should be sent to
The Airspace Change Manager at UASCDC-ACP@qinetiq.com

Responses regarding the proposed TDA submission must be received by 12 March 2021.

Archived: 26 March 2021 19:02:29

From: [REDACTED]

Sent: 11 February 2021 11:02:01

To: [REDACTED]
Cc: [REDACTED]

Subject: RE: UC ACP-2021-100 - SkyGuardian TDA Webex

Response requested: Yes

Sensitivity: Normal

Hi [REDACTED]

NATS has several questions following the Skyguardian Webex.

1. How will Skyguardian arrive in the UK? Will it be flown over or arrive as freight
2. How will Skyguardian get to the several flying locations mentioned on the Webex which are outside of the 2 planned TDAs? Will it move as freight or be flown? If it is to be flown, how will that be managed?
3. When operating at Waddington or Lossiemouth, are there plans to fly it outside of these TDAs above or below FL100? If so, how will this be managed and who is the controlling authority for these flight.

Regards



NATS PRIVATE

-----Original Appointment-----

From: [REDACTED]

Sent: 08 February 2021 20:11

[REDACTED]

Subject: UC ACP-2021-100 - SkyGuardian TDA Webex

When: 09 February 2021 09:00-11:00 (UTC+00:00) Dublin, Edinburgh, Lisbon, London.

Where: beeee

Dear aviation stakeholder,

As promised, here is the agenda:

- Introductions & Webex protocols
- SkyGuardian v Protector (different ACPs)
- ACP process for a TDA
- Brief on TDA requirement, design and operation
- TDA Management
- Draft flying schedule
- Questions received to date

This is your invitation to join the Webex for ACP-2020-100 (SkyGuardian TDAs). Please find below details of how to join the Webex, either online or by telephone. You will be able to join from 0845hrs on the day. It may be worth trying to join a little early in order to avoid last minute glitches and missing the beginning of the meeting. You will be automatically muted on entry. The meeting will start promptly at 0900hrs.

Please ensure any questions you would like addressing during the meeting are forwarded in writing to UASCDC-ACP@qinetiq.com by midday on Monday 8 Feb 2021.

The draft agenda for the meeting will be sent out with an update on Monday afternoon.

[REDACTED]
ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

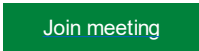
Telephone No: 01980 663091
Email: UASCDC-ACP@qinetiq.com



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-- Do not delete or change any of the following text. --

When it's time, join your Webex meeting here.



More ways to join:

Join from the meeting link

<https://qinetiquk.webex.com/join?MTID=m491168eb932d55fcbfd23c4320ec7a5e>

Join by meeting number

Meeting number (access code): 181 653 2256

Meeting password: 2pSQWWx2NbY9 (27779992 from phones and video systems)

Tap to join from a mobile device (attendees only)

+44-20-7660-8149,,1816532256#27779992# United Kingdom Toll

Some mobile devices may ask attendees to enter a numeric meeting password.

Join by phone

+44-20-7660-8149 United Kingdom Toll
[Global call-in numbers](#)

Join from a video system or application

Dial [1816532256@qinetiquk.webex.com](tel:1816532256)

You can also dial [62.109.219.4](tel:621092194) and enter your meeting number.

Join using Microsoft Lync or Microsoft Skype for Business

Dial [1816532256.qinetiquk@lync.webex.com](tel:1816532256)

If you are a host, [click here](#) to view host information.

Need help? Go to <https://help.webex.com>

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Archived: 26 March 2021 20:42:34
From: [REDACTED]
Sent: 18 March 2021 13:24:42
To: UASDCD-ACP
Subject: RE: UC FW: UC ACP-2020-100 Engagement Letter
Sensitivity: Normal
Attachments:
[image004.emz](#)

Thanks for forwarding on [REDACTED] I look forward to hearing from Liam in the near future.

Kind regards

[REDACTED]
Air Navigation Services Manager
East Midlands Airport

From: UASDCD-ACP <UASDCD-ACP@qinetiq.com>
Se [REDACTED]
Subject: UC FW: UC ACP-2020-100 Engagement Letter

Please see below. I expect you will hear from [REDACTED] in a month or 2.

[REDACTED]
ATM Specialist and ACP Manager
Defence UAS Capability Development Centre



Please consider the environment before printing this email.

From: [REDACTED]
Sent: 18 March 2021 12:50
To: Qinetiq-UASDCD-ACP <uascdc-accp@qinetiq.r.mil.uk>
Subject: RE: UC ACP-2020-100 Engagement Letter

Afternoon [REDACTED]

We're currently in the fact gathering phase of our safety assessment, drawing on SQEP from around the county with all the different civ and mil units. That being the case, I can't say precisely what the procedures will be because the hazards and risks haven't been objectively assessed yet – this will happen through April. That said, we manage R313 in a similar way, with a "ring around" including to Humberside and Doncaster airports. I see this as being a piece of good practice that we can easily apply to the proposed TDA.

East Midlands Airport, and other local agencies, can expect us to be in touch in coming weeks to provide an opportunity to contribute ideas to our safety assessment.

Kind regards,

From: UASDCD-ACP <UASDCD-ACP@qinetiq.r.mil.uk>
Sent: 18 March 2021 12:22
To: [REDACTED]
Subject: FW: UC ACP-2020-100 Engagement Letter

Hi [REDACTED]

Please see below. I am keen to understand if you will be considering any mechanism to telephone external (local) agencies to advise on TDA activation on the day. I hesitate to assume anything at this stage.

[REDACTED]
ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091
Mobile [REDACTED]



Please consider the environment before printing this email.

From: [REDACTED]
Sent: 18 March 2021 09:50
To: UASDCD-ACP <UASDCD-ACP@qinetiq.com>
Subject: RE: UC ACP-2020-100 Engagement Letter

Thanks [REDACTED]

Kind regards

[REDACTED]

[REDACTED]
Air Navigation Services Manager
East Midlands Airport

From: UAS CDC-ACP <UAS CDC-ACP@qinetiq.com>
Sent: 18 March 2021 09:48
To: [REDACTED]
Subject: RE: UC ACP-2020-100 Engagement Letter

Dear [REDACTED]

I will forward your email to Flt Lt Liam Cooper in ATC at Waddington. I'm not sure as yet precisely what procedures they are putting in place for local notification each day, but I'll ask him to get in touch.

[REDACTED]
ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091
Mobile: [REDACTED]
Email: UAS CDC-ACP@qinetiq.com



Please consider the environment before printing this email.

From: [REDACTED]
Sent: 18 March 2021 09:11
To: UAS CDC-ACP <UAS CDC-ACP@qinetiq.com>
Subject: RE: UC ACP-2020-100 Engagement Letter

Hi [REDACTED]

My suggestion was for a phone call from Waddington prior to activation so that we are fully aware of the operation. I appreciate that a NOTAM will be put out, but there is always a risk that this may be missed.

Kind regards

[REDACTED]
Air Navigation Services Manager
East Midlands Airport
Castle Donington

From: UAS CDC-ACP <UAS CDC-ACP@qinetiq.com>
Sent: 17 March 2021 19:08
To: [REDACTED]
Subject: RE: UC ACP-2020-100 Engagement Letter

[REDACTED]
Thank you for your email and feedback form attached. The TDA will be promulgated via NOTAM 24hrs in advance of activation. Do you mean that you would like some additional notification from ATC at RAF Waddington, for instance? I can put you in touch with the Waddington point of contact if you think that would be useful to discuss options / requirements.

[REDACTED]
ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091
Mobile: [REDACTED]
Email: UAS CDC-ACP@qinetiq.com



Please consider the environment before printing this email.

From: [REDACTED]
Sent: 15 March 2021 12:10
To: UAS CDC-ACP <UAS CDC-ACP@qinetiq.com>
Subject: RE: UC ACP-2020-100 Engagement Letter

Dear [REDACTED]

Apologies for the late response, but please see attached.

Kind regards

[REDACTED]
Air Navigation Services Manager
East Midlands Airport
Castle Donington

From: UAS CDC-ACP <UAS CDC-ACP@qinetiq.com>
Sent: 29 January 2021 17:29
To: UAS CDC-ACP <UAS CDC-ACP@qinetiq.com>
Subject: UC ACP-2020-100 Engagement Letter

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DO NOT CLICK links or attachments unless you recognise the sender and know the content is safe.

Dear Stakeholder,

Please find attached a copy of the engagement material relating to the proposed establishment of Temporary Danger Areas (TDAs) in the vicinities of RAF Waddington and RAF Lossiemouth during the Summer 2021. You are being sent this document as a potential stakeholder.

The document explains the rationale behind the proposal and contains details of the proposed TDAs. Should you wish to comment please do so by email. A Response Form is also attached in Word format which you might find useful for your feedback, but feel free to send your comments in any written form, directly in an email if you prefer. The address at the top of the attached letter will periodically be monitored for hard copy responses.

Email responses should be sent to:

The Airspace Change Manager at UASCDC-ACP@qinetiq.com

Responses to the attached material should be mailed in time to reach the MOD by Friday 12 March 2021.

Live Online Engagement Opportunity

The MOD will be running a live online engagement meeting at 0900 – 1100hrs on Tuesday 9 February 2021. Your attendance is optional. An invitation will be sent to all stakeholders by 1700hrs on Friday 5 February 2021. During this online meeting the MOD will run through the proposal for the TDAs, with little additional information than enclosed at the attached, but any newly available up-to-date material will be shared. You are invited to ask questions about the proposal or to ask for clarification of the designs, which the MOD will endeavour to answer fully. **Please forward your questions in advance to the email address UASCDC-ACP@qinetiq.com**

Please Note:

The MOD is also sponsoring ACP-2019-18

"Enabling Remotely Piloted Air System Operations Out of RAF Waddington"

This ACP is completely separate.

Regards,

Ali Green

Air Traffic Management Specialist
Defence UAS Capability Development Centre

Telephone No: 01980 663091



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ACP-2020-100 Response Form

Name	[REDACTED]
Representing	EMA ATC
Address (including postcode if possible)	Air Traffic Control Tower, Castle Donington, DE74 2SA
<p>Feedback:</p> <p>Could I ask that a notification is made to my team whenever the TDA is established at RAF Waddington for this operation.</p> <p>Please contact the ATC Watch Manager on:</p> <p>[REDACTED]</p>	

Feedback on the proposed change and what is important to you should be sent to
The Airspace Change Manager at UASCDC-ACP@qinetiq.com

Responses regarding the proposed TDA submission must be received by 12 March 2021.

Archived: 26 March 2021 17:07:37
From: UAS CDC-ACP
Sent: 26 March 2021 17:06:00
To: [REDACTED]
Subject: RE: UC ACP 2020-100 Waddington
Sensitivity: Normal

Dear [REDACTED],

Apologies for the delay in writing. It has been a busy period.

I am writing to let you know that the MOD has been able to update the size of the proposed TDA at RAF Waddington associated with ACP-2020-100 for SkyGuardian operations in the UK this summer. The minimum airspace requirement associated with the preferred flight profiles has become better understood and so in conjunction with the Control Authority Waddington ATC, some significant reduction in TDA size has been affected.

Of particular interest to you and the operators of small airstrips within the MATZ, the proposed TDA at RAF Waddington will be reduced laterally to a 5NM radius circle centred on Waddington's main runway. The maximum upper limit remains FL100 pending CAA approvals for the activity. Procedures will be in place to enable GA operations to continue with minimum impact. Waddington ATC is working on these now and will be in touch in due course if the TDA submission is successful.

The MOD expects to submit its proposal later today after which all relevant documents will be uploaded to the CAA ACP portal.

Regards,

[REDACTED]
ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091
Mobile: [REDACTED]
Email: UAS CDC-ACP@qinetiq.com



Please consider the environment before printing this email.

From: UAS CDC-ACP
Sent: 08 March 2021 13:16
To: [REDACTED]
Subject: RE: UC ACP 2020-100 Waddington

Dear [REDACTED],

Thank you for your email and feedback. The change sponsor has been working closely with RAF Waddington and has secured a Danger Area Crossing Service for the duration of the TDA activations. In addition the sponsor should be able to publish a robust flying schedule for the whole period of activity out of RAF Waddington by the end of March. Nevertheless, the TDA will be activated by NOTAM with at least 24 hrs advance warning.

Finally, options to adjust the size of both Areas A & B are also being assessed. An update should be forthcoming by the end of this week.

I appreciate the impact that the TDAs may have on operations at airfields such as Temple Bruer; the MOD is certainly looking at means to minimise the impact on other airspace users.

[REDACTED]
ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091
Mobile: [REDACTED]
Email: UAS CDC-ACP@qinetiq.com



Please consider the environment before printing this email.

From: [REDACTED]
Sent: 01 March 2021 08:34
To: UAS CDC-ACP <UAS CDC-ACP@qinetiq.com>
Subject: ACP 2020-100 Waddington

Dear sir, madam,

Having read the documents and listened through the Webex presentation relating to ACP 2020-100 proposed TDA for Waddington area in 2021, I have some concerns regarding introduction of such airspace and its effect on local airspace users.

I appreciate that segregated airspace is required for operation of the unmanned aircraft but please do ensure that the design of the airspace reflects the real world performance of the machine and does not take any more physical area than is required.

It would appear from the departure and recovery profiles explained on the Webex, that proposed TDA extends from ground level over the entire area and therefore is not meeting that aim and should be re-designed.

To clarify: The currently proposed TDA at Waddington features a blanket Surface base. It is only necessary for the TDA base to come down to ground level for very close to departure/recovery point, and the base of TDA could usefully be raised further out to allow unrestricted operation from airfields and farm strips (such as Temple Bruer, but there are others too) which lie within the TDA but are quite obviously some miles beyond where the SkyGuardian will ever fly at low level.

Secondly, from a local airfield operator's point of view, I request that TDA activation be restricted to strictly only as needed and such activation to be notified properly in advance – there must also be a fully staffed and continuously available Danger Area Crossing Service ATC presence throughout the hours notified that the TDA is active. With the understanding that access is to be given to GA other than when the SkyGuardian is actually (or very soon about to be) operating within the TDA.

I hope this will be of use and is to be taken as constructive engagement in the consultation process with the aim of making this work as well as possible for ALL airspace users.

Kind regards

[REDACTED]

Archived: 26 March 2021 16:37:03

From: UAS CDC-ACP

Sent: 26 March 2021 16:35:00

To: [REDACTED]

Subject: RE: UC Feedback form

Sensitivity: Normal

Dear [REDACTED]

I am writing to let you know that the MOD has been able to update the size of the proposed TDA at RAF Waddington associated with ACP-2020-100 for SkyGuardian operations in the UK this summer. The minimum airspace requirement associated with the preferred flight profiles has become better understood and so in conjunction with the Control Authority, Waddington ATC, some significant reduction in TDA size has been affected.

Of particular interest to you and the operators from small farm strips, the proposed TDA at RAF Waddington will be reduced laterally to a 5NM radius circle centred on Waddington's main runway. The maximum upper limit remains FL100 pending CAA approvals for the activity. Procedures will be in place to enable operations to continue with minimum impact. Waddington ATC is working on these now and will be in touch with their operators in due course if the TDA submission is successful.

The MOD expects to submit its proposal later today after which all relevant documents will be uploaded to the CAA ACP portal.

Regards,

[REDACTED]

ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091
Mobil: [REDACTED]
Email: UAS CDC-ACP@qinetiq.com



Please consider the environment before printing this email.

From: UAS CDC-ACP

Sent: 16 February 2021 19:22

To: [REDACTED]

Subject: RE: UC Feedback form

Dear [REDACTED]

Thank you for your response to the MOD's request for feedback on its engagement for ACP-2020-100 (SkyGuardian TDAs for Summer 2021). Please accept this email as a holding email. Your comments have been noted and will be carried forward for the MOD's analysis. I will get back to you in due course.

I will keep you advised on any potential developments with the design and operation of the TDAs.

Regards,

[REDACTED]

Air Traffic Management Specialist
Defence UAS Capability Development Centre

Telephone No: 01980 663 [REDACTED]
Email: agreen6@qinetiq.com



Please consider the environment before printing this email.

From: [REDACTED]

Sent: 05 February 2021 18:00

To: UAS CDC-ACP <UAS CDC-ACP@qinetiq.com>

Cc: [REDACTED]

Subject: Feedback form

ACP-2020-100 Response Form

Name	[REDACTED]
Representing	[REDACTED]
Address (including postcode if possible)	[REDACTED] [REDACTED] [REDACTED] [REDACTED]
<p>Feedback:</p> <ol style="list-style-type: none">1. Why not just simply use the existing MATZ/ATZ; complicating airspace with more overlays seems like overkill2. There are at least 4 farm strips within the existing MATZ what arrangements will be made to support their continued operation.3. A MATZ penetration service should surely ensure continued separation as with other air traffic, why is this any different?	

Feedback on the proposed change and what is important to you should be sent to **The Airspace Change Manager** at UASCDC-ACP@qinetiq.com

Responses regarding the proposed TDA submission must be received by 12 March 2021.

Archived: 26 March 2021 17:30:17
From: UAS CDC-ACP
Sent: 26 March 2021 17:29:00
To: [REDACTED]
Subject: RE: UC ACP-2020-100 Query
Sensitivity: Normal

Dear [REDACTED],

I am writing to let you know that the MOD has been able to update the size of the proposed TDA at RAF Lossiemouth associated with ACP-2020-100 for SkyGuardian operations in the UK this summer. The minimum airspace requirement associated with the preferred flight profiles has become better understood and so in conjunction with the Control Authority, Lossiemouth ATC, some reduction in proposed TDA size has been affected. In addition it has been relocated to the northeast slightly and will enable activity at Fulmar to continue unhindered. The maximum upper limit remains FL100 pending CAA approvals for the activity.

Lossiemouth ATC is working on procedures for the management of the TDA and will be in touch in due course if the TDA submission is successful.

The MOD expects to submit its proposal later today after which all relevant documents will be uploaded to the CAA ACP portal.

Regards,

[REDACTED]
ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091
Mob: [REDACTED]
Email: UAS CDC-ACP@qinetiq.com



Please consider the environment before printing this email.

From: UAS CDC-ACP
Sent: 16 February 2021 19:21
To: [REDACTED]
Subject: RE: UC ACP-2020-100 Query

Dear Mr [REDACTED]

Thank you for your response to the MOD's request for feedback on its engagement for ACP-2020-100 (SkyGuardian TDAs for Summer 2021). Your comments have been noted and the design you suggest will be put forward for further discussion.

I will keep you advised on any potential developments with the design and operation of the TDAs.

Regards,

[REDACTED]
ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091
Email: UAS CDC-ACP@qinetiq.com



Please consider the environment before printing this email.

From: [REDACTED]
Sent: 07 February 2021 17:28
To: UAS CDC-ACP <UAS CDC-ACP@qinetiq.com>
Subject: UC ACP-2020-100 Query

Hello,

I am the Officer In Charge of the Fulmar Gliding Club, the RAF Lossiemouth Gliding Club that operates alongside the Highland Gliding Club at Easterton Airfield. Easterton airfield is a grass strip used by both gliding clubs and by a number of privately-owned light aircraft. We have 7 days a week operation and work closely with RAF Lossiemouth Air Traffic Control under the terms of a Letter of Agreement. This LoA acknowledges that not all aircraft operating from Easterton are radio equipped and allows for procedural deconfliction as long as Easterton aircraft avoid the Lossiemouth MATZ. The proposed TDA impinges on the protected area at Easterton airfield and would adversely affect the operations of both clubs and any GA aircraft operating from the strip.

I would like to suggest that the lateral dimensions of the TDA are amended to cut off the southern corner by drawing a line from the tangent of the Lossiemouth MATZ to a tangent of the Kinloss MATZ. This would allow operations from Easterton to continue with minimum disruption whilst having little impact on UAV operations. The proposal is shown in the attached pdf. Can this be discussed at the meeting on Tuesday please?

Many thanks,

[REDACTED]
OIC Fulmar Gliding Club

Archived: 26 March 2021 13:34:03
From: UAS CDC-ACP
Sent: 26 March 2021 13:32:00
To: [REDACTED]
Subject: RE: UC ACP-2020-100 Response Form
Response requested: No
Sensitivity: Normal

De [REDACTED]

I am writing to let you know that the MOD has been able to update the size of the proposed TDA at RAF Waddington associated with ACP-2020-100 for SkyGuardian operations in the UK this summer.. The minimum airspace requirement associated with the preferred flight profiles has become better understood and so in conjunction with the Control Authority Waddington ATC, some significant reduction in TDA size has been affected.

Of particular interest to you and the operators at Temple Bruer, the proposed TDA at RAF Waddington will be reduced laterally to a 5NM radius circle centred on Waddington's main runway. The maximum upper limit remains FL100 pending CAA approvals for the activity. Procedures will be in place to enable Temple Bruer operations to continue with minimum impact. Waddington ATC is working on these now and will be in touch in due course if the TDA submission is successful.

The MOD expects to submit its proposal later today after which all relevant documents will be uploaded to the CAA ACP portal.

I will advise all other stakeholders on my list with an interest in Temple Bruer similarly today.

Regards,

[REDACTED]
ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 [REDACTED]
[REDACTED]@qinetiq.com



Please consider the environment before printing this email.

From: UAS CDC-ACP
Sent: 05 February 2021 16:25
To: [REDACTED]
Subject: RE: UC ACP-2020-100 Response Form

Dear Mr [REDACTED]

Thank you for your email. I will respond to your comments in due course but I am writing to let you know that I will send an invitation for the live Webex to be held on Tuesday next week, should you wish to join it. The invitations will be sent out in about an hour.

[REDACTED]
Air Traffic Management Specialist
Defence UAS Capability Development Centre

Telephone No: 01980 663091
Mobile N [REDACTED]
Email: agreen6@qinetiq.com

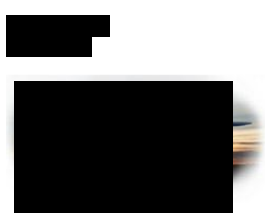


Please consider the environment before printing this email.

From: [REDACTED]
Sent: 03 February 2021 11:06
To: UAS CDC-ACP <UAS CDC-ACP@qinetiq.com>
Subject: ACP-2020-100 Response Form

Dear Sirs,

Feedback form attached.



ACP-2020-100 Response Form

Name	[REDACTED]
Representing	self
Address (including postcode if possible)	[REDACTED] [REDACTED] [REDACTED] [REDACTED]
<p>Feedback:</p> <p>Firstly, having active and, occasionally, busy RAF air stations in our vicinity means a familiarity and ability to work well together with all local station ATC units.</p> <p>I fly from Temple Bruer airstrip, located on the northern edge of Cranwell ATZ, within their MATZ(though we all know that a MATZ confers flying 'rules' on military traffic ONLY, the MATZ is not a regulated area for civilian traffic).</p> <p>Temple Bruer is an active airfield established and operating for 40 years, with 15 based aircraft. It is one of 6 private airstrips within the proposed airspace proposal. Effectively, we operate in Class G airspace, however, with a strong understanding and healthy respect for the various active ATZs in our vicinity.</p> <p>In all this airspace, Coningsby, Cranwell and Waddington, precision radar approaches are commonplace, with a clear understanding and recognition of flightpaths to each respective runways. Communication with respective ATC units allows clear and safe transitions around the region, even with active and occasionally busy radar approaches.</p> <p>The proposed airspace allocation for the operation of the new UAS 'Protector' is un-acceptable. For a system that exemplifies all that is good, in precision and accurate navigation and accurate flying, it is incongruous to take so much 'free' airspace for such a precision vehicle operation.</p> <p>Taking the entire airspace, from 3,000ft all the way down to the surface, from a 10 mile radar approach to landing, is totally un-necessary.</p> <p>Likewise, to block lateral airspace to such a degree, well outside of the recognized and accepted MATZ, notwithstanding the previous confirmation that the M in MATZ is for military operations – we do respect the airspace area and work with each base ATC to co-ordinate flight within these areas.</p> <p>What is the justification for such a massive block of airspace for this drone. Where is the justification, based on the drone capabilities and performance?</p> <p>As far as we can be aware, navigation is very accurately by GPS, so should be flown with this in mind and the airspace should be designed taking this into account. The vehicle can climb out straight ahead on an accurate track, perhaps, with a very good rate of climb. Likewise, can probably descend</p>	

rapidly and easily to intercept a final glide path from above and this may well be able to be above a standard airliner 3 degree glide slope.

If so, this equates to a narrow 'strip' of airspace, extending out from either end of the runway, not something 10 miles wide.

As a local pilot and a very local resident to Waddington, I am reasonably familiar with the airfield circuit patterns. For all based aircraft, including the heaviest/biggest type, Boeing E-3D Sentry, their visual circuit is well to the north of Temple Bruer, whilst smaller types are, correspondingly, even closer to Waddington.

One could assume that, because of the type of operation for Protector, 'visual' circuits would not be the normal practice.

I stand to be corrected but, radar approaches are something different. For example, radar vectored traffic for r/w 20 landing would, most likely, take the inbound aircraft high level 'downwind' on the eastern side of the airfield in a NE direction, very likely, well above 2,000', before beginning the left turn, onto final approach, in the vicinity of Wragby.

Such an approach path would have arriving aircraft well above any 'local' traffic in or around Temple Bruer.

Likewise, traffic on a radar approach to r/w 02 would, again from my local observations, are vectored on the western side of Waddington, turning left onto final approach path in the vicinity of Caythorpe. Once again, well clear of any conflict with Temple Bruer.

For many years, residents and visitors to Temple Bruer have followed outbound and inbound 'procedures', clearly understood and agreed upon with RAF Cranwell, in who's airspace we are in closest vicinity. Such a procedure requires remaining at or below a specific height on directly east or west headings, until outside of the boundary of RAF Cranwell MATZ, in direct communication with RAF Cranwell approach ATC.

Such procedures could and should be able to be maintained during the frequency of the proposed ACP operations, perhaps with certain obvious additions, if the departure or arrival flight paths cross the approach or departure path of Waddington.

To, arbitrarily, block a wide and deep section of airspace, such has been proposed, is excessively dis-proportionate to the need of the traffic for which it is designed, on numerous points – height, width and frequency of use.

If any airspace proposal goes ahead, of whatever size, it must be made workable for the local flying residents, such that any NOTAM covering inbound or outbound traffic c to Waddington under this proposal, be proportionate in time to the activity – in other words, notam ONLY the time that traffic is or will be in any 'conflict' and not an entire day, or number of hours 'within which activity might occur'. Such things are wholly unacceptable.

OFFICIAL

The Airspace Change Manager at UASCDC-ACP@qinetiq.com

Responses regarding the proposed TDA submission must be received by 12 March 2021.

Archived: 26 March 2021 14:15:29

From: UASDCD-ACP

Sent: 26 March 2021 [REDACTED]

Subject: RE: UC Waddington TDA

Sensitivity: Normal

[REDACTED]

I am writing to let you know that the MOD has been able to update the size of the proposed TDA at RAF Waddington associated with ACP-2020-100 for SkyGuardian operations in the UK this summer.. The minimum airspace requirement associated with the preferred flight profiles has become better understood and so in conjunction with the Control Authority, Waddington ATC, some significant reduction in TDA size has been affected.

Of particular interest to you and the operators at Temple Bruer, the proposed TDA at RAF Waddington will be reduced laterally to a 5NM radius circle centred on Waddington's main runway. The maximum upper limit remains FL100 pending CAA approvals for the activity. Procedures will be in place to enable Temple Bruer operations to continue with minimum impact. Waddington ATC is working on these now and will be in touch in due course if the TDA submission is successful.

The MOD expects to submit its proposal later today after which all relevant documents will be uploaded to the CAA ACP portal. I will advise all other stakeholders on my list with an interest in Temple Bruer similarly today.

Regards,

[REDACTED]

ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091
Mobile: [REDACTED]
Email: UASDCD-ACP@qinetiq.com

Please consider the environment before printing this email.

-----Original Message-----

From: UASDCD-ACP
Sent: 16 February 2021 19:14
To: [REDACTED]
Subject: RE: UC Waddington TDA

Dear [REDACTED],

Thank you for your response to the MOD's request for feedback on its engagement for ACP-2020-100 (SkyGuardian TDAs for Summer 2021). Your comments have been noted and will be carried forward for the MOD's analysis.

I will keep you advised on any potential developments with the design and operation of the TDAs.

Regards,

[REDACTED]

ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091
Email: UASDCD-ACP@qinetiq.com

Please consider the environment before printing this email.

-----Original Message-----

From: [REDACTED]
Sent: 12 February 2021 15:54
To: UASDCD-ACP <UASDCD-ACP@qinetiq.com>
Subject: Waddington TDA

Dear Sir/madam
I operate an aircraft from Temple Bruer Airfield which is 3nmsouth of waddington ATZ, as it stands the area you propose would restrict the GA aircraft at Temple Bruer total of fifteen aircraft Severely.
The Area you propose is far reaching into class Gairspace and I strongly object to this airspace restriction.

Kind Regards

[REDACTED]

Sent from my iPhone

Archived: 26 March 2021 13:55:32
From: UAS CDC-ACP
Sent: 26 March 2021 13:39:00
To: [REDACTED]
Subject: RE: UC ACP-2020-100 Stakeholder Response.
Sensitivity: Normal

Dear Mr [REDACTED]

I am writing to let you know that the MOD has been able to update the size of the proposed TDA at RAF Waddington associated with ACP-2020-100 for SkyGuardian operations in the UK this summer.. The minimum airspace requirement associated with the preferred flight profiles has become better understood and so in conjunction with the Control Authority, Waddington ATC, some significant reduction in TDA size has been affected.

Of particular interest to you and the operators at Temple Bruer, the proposed TDA at RAF Waddington will be reduced laterally to a 5NM radius circle centred on Waddington's main runway. The maximum upper limit remains FL100 pending CAA approvals for the activity. Procedures will be in place to enable Temple Bruer operations to continue with minimum impact. Waddington ATC is working on these now and will be in touch in due course if the TDA submission is successful.

The MOD expects to submit its proposal later today after which all relevant documents will be uploaded to the CAA ACP portal. I will advise all other stakeholders on my list with an interest in Temple Bruer similarly today.

Regards,

[REDACTED]

ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091
Mobile [REDACTED]
Email: UAS CDC-ACP@qinetiq.com



 Please consider the environment before printing this email.

From: UAS CDC-ACP
Sent: 05 February 2021 16:28
To: [REDACTED]
Subject: RE: UC ACP-2020-100 Stakeholder Response.

Dear Mr [REDACTED]

Many thanks for your email and feedback response. I will respond to your comments in due course. Your invitation to the live Webex is on its way shortly.

[REDACTED]

Air Traffic Management Specialist
Defence UAS Capability Development Centre

Telephone No: 01980 663091
Mobile [REDACTED]
Email: agreen6@qinetiq.com



 Please consider the environment before printing this email.

From: [REDACTED]
Sent: 03 February 2021 17:00
To: UAS CDC-ACP <UAS CDC-ACP@qinetiq.com>
Subject: ACP-2020-100 Stakeholder Response.

Please find my feedback response attached.

My questions for webex discussion, will follow by the end of this week.

Best regards,

[REDACTED]

ACP-2020-100 Response Form

Name	[REDACTED]
Representing	My Self: as an aircraft owner/operator based at Temple Bruer.
Address (including postcode if possible)	[REDACTED] [REDACTED] [REDACTED]
<p>Feedback:</p> <p>Temple Bruer, airfield opened in 1981 and is situated 5.4 miles South of Waddington and 2.9 nm North of Cranwell, within the combined MATZ. There are currently 15 privately owned aircraft based there, operated by 19 pilots. I have been flying from the location since 2005.</p> <p>The investments of time and money, made by individuals to procure, insure, hangar and maintain their aircraft and the licence's required to fly them, are not insignificant. The financial investment that I make, forms a large proportion of my disposable income. Temple Bruer airfield and flying from it, are central to my life.</p> <p>The last 12 months have been difficult for all, with much reduced social contact and activity. Naturally this has resulted in less general aviation flying. GA was suspended 30 Dec 2020. Much of 2020 was restricted to local flying, with landing away from the point of departure, not permitted for much of the year. Despite that, I managed in excess of 70 hours flying, with numerous circuits and short flights, amounting to well over 200 arrivals and departures. Any curtailment of my flying activities will be most unwelcome and strenuously objected to.</p> <p>Temple Bruer is active 365 days of the year and we have good working relationships with the ATCU's of both Cranwell and Waddington.</p> <p>At first glance it seems that the proposed TDA has been designed solely with simplicity in mind, for easy interpretation, using the rules applied by the FAA that allow General Atomics to operate SkyGuardian in the vastness of the United States. Applying the same rules and shoehorning the current TDA design into the very busy Lincolnshire AIAA takes little account of other lower airspace users or their requirements.</p> <p>Would it be possible to step the lower level of the TDA's southern extremity up to 1000 feet in the same fashion as a MATZ Pan Handle?, This would allow sufficient vertical separation for safe operations in and out of Temple Bruer, without the need to use a DA Crossing service, reducing both pilot and Controller work load..</p> <p>Alternatively, designated departure and arrival routes, could be used for Temple Bruer movements. We are often asked to route via the Digby or Fulbeck disused airfields on our way in or out, at 600-700 feet on the Cranwell or Waddington QFE's to ensure vertical separation with military traffic. My aircraft is mode S transponder and ADSB equipped.</p> <p>Stakeholder Questions re Webex Scheduled 09 Feb 2021 to follow.</p>	

A large, empty rectangular box with a thin black border, intended for providing feedback on a proposed change. The box is currently blank.

Feedback on the proposed change and what is important to you should be sent to
The Airspace Change Manager at UASCDC-ACP@qinetiq.com

Responses regarding the proposed TDA submission must be received by 12 March 2021.

Archived: 26 March 2021 20:18:40

From: UASDCD-ACP

Sent: 16 February 2021 19:00:00

To: [REDACTED]

Subject: RE: UC Proposed TDA's

Sensitivity: Normal

Dear Mr [REDACTED]

Thank you for your response to the MOD's request for feedback on its engagement for ACP-2020-100 (SkyGuardian TDAs for Summer 2021). Your comments have been noted and will be carried forward for the MOD's analysis.

I will keep you advised on any potential developments with the design and operation of the TDAs.

Regards,

[REDACTED]
ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091
Email: UASDCD-ACP@qinetiq.com

Please consider the environment before printing this email.
-----Original Message-----

From: [REDACTED]
Sent: 15 February 2021 14:42
To: UASDCD-ACP <UASDCD-ACP@qinetiq.com>
Subject: Proposed TDA's

Re UC ACP-2020-100

Dear Sir,

I write to protest strongly against the two proposed TDA's for the Guardian trials and operation. Airspace available to GA flying is currently being eroded at a horrendous pace with many large areas of airspace being denied to normal VFR GA operations. On top of that the number of airfield closures is making GA flying harder and harder. This is not acceptable and must be resisted, hence my objection to more needless airspace grabs.

[REDACTED]

Archived: 26 March 2021 20:10:46

From: UASDCD-ACP

Sent: 16 February 2021 19:12:00

To: [REDACTED]
Subject: RE: UC ACP-2020-100 - RSF Waddington

Sensitivity: Normal

Dear Mr [REDACTED]

Thank you for your response to the MOD's request for feedback on its engagement for ACP-2020-100 (SkyGuardian TDAs for Summer 2021). Your comments have been noted and will be carried forward for the MOD's analysis.

I will keep you advised on any potential developments with the design and operation of the TDAs.

Regards,

[REDACTED]
ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091
Email: UASDCD-ACP@qinetiq.com

Please consider the environment before printing this email.

-----Original Message-----

From: [REDACTED]
Sent: 12 February 2021 18:48
To: UASDCD-ACP <UASDCD-ACP@qinetiq.com>
Subject: UC ACP-2020-100 - RSF Waddington

To whom it may be concerned,

I wish to object to the establishment and dimensions of the proposed Temporary Danger Area in the change proposal ACP-2020-100.

Firstly, it is claimed that the trial is to test the 'see and avoid' capability of the Sky Guardian as a precursor to its use on the Protector. However, segregating the airspace in this manner will not only defeat the object of generating interactions with other aircraft it will prevent the safe operation of general aviation aircraft based within and immediately adjacent to the proposed RAF Waddington danger area. Accordingly, this is not essential testing, which could be conducted in the United States but showboating by the RAF and the Ministry of Defence.

Secondly, no evidence has been presented to justify the dimensions of the proposed temporary danger area around RAF Waddington. Defensive statements that 'it is what the manufacturer has asked for' are weak and unjustifiable. Before the ACP could be approved there needs to be proper justification and a safety case to underpin the justification.

[REDACTED]
Sent from my iPad

Archived: 26 March 2021 20:16:20

From: UASDCD-ACP

Sent: 16 February 2021 19:04:00

To: [REDACTED]

Subject: RE: UC ACP-2020-100 Waddington and Lossiemouth TDA Objection

Sensitivity: Normal

Dear Mr [REDACTED]

Thank you for your response to the MOD's request for feedback on its engagement for ACP-2020-100 (SkyGuardian TDAs for Summer 2021). Your comments have been noted and will be carried forward for the MOD's analysis.

I will keep you advised on any potential developments with the design and operation of the TDAs.

Regards,

[REDACTED]
ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091
Email: UASDCD-ACP@qinetiq.com

Please consider the environment before printing this email.

-----Original Message-----

From: [REDACTED]

Sent: 14 February 2021 12:30

To: UASDCD-ACP <UASDCD-ACP@qinetiq.com>

Subject: ACP-2020-100 Waddington and Lossiemouth TDA Objection

Hi,

I would like to object to this TDA.

My main objection is that there is no justification for the massive size of the airspace and why it is needed for the "Sky Guardian" operation, the airspace should be designed based on the Sky Guardian capability and performance and thus not need to be anywhere near this size.

It looks to me that this airspace is yet another "standard" shape airspace based on 1980s design of procedural low level approaches, going overhead the airfield beacon, joining the low level hold, then going outbound with a turn and descent to MSA before intercepting the inbound track, flying level until you saw the runway or started the final descent! Largely stopped in airline operations 40 years ago, due to safety concerns of flying level at low altitudes and the advent of radar vectors and then FMS/RNAV with the ability to fly much more accurate self-positioned approaches and continuous descents from higher altitudes. This increases safety and reduces noise and fuel burn.

Surely the Sky Guardian can climb straight ahead to 3000ft at a good rate and can self position to a straight in approach with a continuous descent and certainly only need to be below 3000ft when on final. They are very accurate, so I see no reason that the airspace isn't a narrow corridor a mile or so wide each end of the runway stepping up to 3000ft. I understand that similar drones to the Sky Guardian have the capability to fly much steeper approaches than many aircraft, so the airspace requirements should be based on this rather than an airline standard 3 degree slope (I understand 4.5 degree is normal and higher if engine out) thus there is no reason for the Sky Guardian to be below 2000ft just over 4NM from the runway, so the required narrow corridor upto 3000ft could be stepped up with a base of 1500ft more than 4NM from the airfield to maintain the standard 500ft separation.

The Sky Guardian lands automatically, so no need to fly circuits for drone operator training which in any case could be done elsewhere in an existing remote danger area. Thus no need for the airspace to accommodate circuit flying. Any missed approach should be maximum climb to 3000ft again, thus needing less airspace than a take-off.

So given the Performance of Sky Guardian I would suggest a strip of airspace 1 mile wide, extending 4.5 miles from each end of the runway from ground to 3000ft, extending to 7miles with the base at 1500ft should be sufficient.

I welcome the statement that the TDA will not be active all the time and only when operationally necessary, but no details are given. Activation should be promulgated by Notam at least 24hr in advance and be for periods of maximum 30 minutes with a minimum of 1hr between periods of activation. As it's a long range drone, if a mission finishes early it should be no problem to hold above the TDA airspace until it is active again. Of course in an emergency it would just descend when the TDA isn't active, but given that this should be a very low probability, this should be acceptable.

The Sky Guardian is said to be fitted with a sophisticated "Detect and Avoid" system that doesn't require any other equipment to be fitted to other airspace users. It should be a priority for this to be CAA certified and the TDA should only be granted on the proviso that all tests required for certification are carried out in the same time period. This TDA should only be granted on the basis that it will be the last TDA for drone operation and all future drone operation (whether military or commercial) will be required to be done with a certified DAA system that doesn't require any other airspace users to fit any equipment. If it is not certified then future drone operations should be restricted to existing danger areas such as Salisbury Plane and Aberporth until CAA certification is achieved.

Best Regards

[REDACTED]
ATPL and light aircraft operator
[REDACTED]

Sent from my iPad

Archived: 26 March 2021 18:45:57
 From: UAS CDC-ACP
 Sent: 16 February 2021 19:23:00
 To: [REDACTED]
 Subject: RE: UC National Grid Powerline Surveys within TDA
 Sensitivity: Normal

Dear Mr [REDACTED]

Thank you for your response to the MOD's request for feedback on its engagement for ACP-2020-100 (SkyGuardian TDAs for Summer 2021). Please accept this email as a holding email. Your comments have been noted and will be carried forward for the MOD's analysis. I will get back to you in due course.

I will keep you advised on any potential developments with the design and operation of the TDAs.

Regards,

[REDACTED]
 ATM Specialist and ACP Manager
 Defence UAS Capability Development Centre

Telephone No: 01980 663091
 Email: UAS CDC-ACP@inetiq.com



Please consider the environment before printing this email.

From: [REDACTED]
 Sent: 01 February 2021 19:05
 To: UAS CDC-ACP <UAS CDC-ACP@inetiq.com>
 Cc: Simmons, Mark <Mark.Simmons@nationalgrid.com>
 Subject: National Grid Powerline Surveys within TDA

Dear Airspace Change Manager,

	ACP-2020-100 Response Form
Name	[REDACTED]
Representing	National Grid Electricity Transmission plc (NGET)
Address (including postcode if possible)	National Grid Stores, Old Milton Road, Didcot OX117HH, UK (not currently manned due to COVID19), please call/email instead.
Feedback:	<p>NGET may have short-notice requirements to aerially survey HV powerlines shown in the diagram below, potentially when the Waddington SkyGuardian TDA Area A is active. Powerline surveys generally take place below 600ft agl by helicopter and occasionally, below 400ft agl by LOS drone. Surveys of the routes shown in summer 2021 are not planned however, urgent patrols following an outage are sometimes required in order to pinpoint or discount a fault with critical national infrastructure. The proposed DACS crossing service should be sufficient to request/enable helicopter surveys when the TDA is active however, NGET drone survey teams may require access by arrangement/pre-notification, therefore a suitable telephone contact/email should be provided, notwithstanding the 24hr advance NOTAM. Short-notice activation and/or ATC denial of TDA Area A entry could be problematic for urgent fault patrols. Therefore it would be useful to know the likelihood of ATC clearance to conduct urgent powerline surveys when the Waddington TDA Area A is active, given NGET helicopters and drones will be low speed at pylon height and should be no more of a deconfliction risk to circuit traffic than the powerlines themselves, particularly given the operators can/will be in contact with ATC and should be able to maintain visual contact with the SkyGuardian. NGET helicopters are TCAS-equipped, not all NGET drones are ADS-B Out equipped.</p>

██████████
Chief Pilot, Helicopter Unit
Electricity Transmission Ops, Field Support
nationalgrid
MS Teams Chat with ██████████

National Grid Stores, Old Milton Rd, Didcot, UK OX117HH
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For the registered information on the UK operating companies within the National Grid group please use the attached link: <https://www.nationalgrid.com/group/about-us/corporate-registrations>

Archived: 26 March 2021 16:57:37

From: UASCDC-ACP

Sent: 16 February [REDACTED]

Subject: RE: UC Re airspace UC ACP-2020-100

Sensitivity: Normal

Dear Mr [REDACTED]

Thank you for your response to the MOD's request for feedback on its engagement for ACP-2020-100 (SkyGuardian TDAs for Summer 2021). Your comments have been noted and will be carried forward for the MOD's analysis.

I will keep you advised on any potential developments with the design and operation of the TDAs.

Regards,

[REDACTED]

ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Telephone No: 01980 663091
Email: UASCDC-ACP@qinetiq.com



 Please consider the environment before printing this email.

From: [REDACTED] >

Sent: 12 February 2021 20:51

To: UASCDC-ACP <UASCDC-ACP@qinetiq.com>

Subject: Re airspace UC ACP-2020-100

[REDACTED]

I fly a GA light aircraft from my farm strip at Grove Moor Farm known as Grove Farm Strip.

Dear Sirs,

I read your proposed airspace changes to Waddington and would like to express my serious concern to the extent you propose closing airspace to the local GA community, I appreciate the RAF have a job to do but there must be ways to limit the restrictions necessary for safe training.

I fly the area of the planned restrictions on a very regular basis including flying into Temple Bruer and the other local fields at weekends and in the week.

The restrictions could just be the Glide Path of arriving and departing traffic this would allow the GA traffic to fly beneath or over the Glide Path, and direct overhead Waddington this way we can all use the airspace safely.

Another point I believe we all have Mode S Transponders so Waddington can monitor all traffic and if all have to monitor Waddington frequency then all are safe.

Regards

[REDACTED]

Archived: 07 April 2021 16:49:41
From: [REDACTED]
Sent: 06 April 2021 17:51:00
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: UC ACP-2021-100 - SkyGuardian TDA Webex
Sensitivity: Normal

[REDACTED]

Apologies for the delay responding, but I have been genuinely busy, and then Easter...

You might have noticed that the submission has been uploaded to the CAA portal. I will be sending out a catch-all email to let all stakeholders know tomorrow morning. However, in answer to your questions below, I discussed options such as those you mention with the ATC points of contact at RAF Waddington during a meeting specifically about TDA activation and notification. I was not able to pursue it further personally simply because of capacity and the need to get the submission progressed. The ATCUs will take up any further engagement.

That said, I received an email from my Waddington ATC POC late last week who is conducting some detailed planning for the TDA management and the need to engage with the BGA, BHPA, Derbyshire and Buckminster clubs etc was brought up. I will respond and point Waddington (and Lossiemouth) in the direction of the contacts at our meeting and those identified as stakeholders to take the planning options further. It is really important to consider all options, even if, [REDACTED] cautions, we are unable to adopt all for SkyGuardian and/or Protector.

I will keep in touch, but ensure that Waddington is linked up with you.

[REDACTED]

ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

Email: UASCDC-ACP@cinetiq.com



Please consider the environment before printing this email.

From: [REDACTED] >
Sent: 27 March 2021 15:19
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: UC ACP-2021-100 - SkyGuardian TDA Webex

Hi [REDACTED]

> Operations on a morning launch / evening retrieval basis with an ATIS style service on airband and telephone to potentially permit TDA access during 'away from field' times
Don't hold your breath on this one as the CAA's current policy is that all of a drone's TDAs have to be active whenever the aircraft is flying to permit returning at any time for any reason unless the sponsor presents an acceptable case to do otherwise. With an active TDA the only legal access is a DACS.

Regards

[REDACTED]

General Aviation Alliance

Email: [REDACTED]

From: [REDACTED]
Sent: 27 March 2021 14:43
To: [REDACTED]
Cc: [REDACTED]
Subject: Re: UC ACP-2021-100 - SkyGuardian TDA Webex

Hi [REDACTED]

Just a quick followup after the most useful online session earlier this month. I was wondering if you had any update available on the possibility of revisions to the operating approach for the SkyGuardian TDA?

Operations on a morning launch / evening retrieval basis with an ATIS style service on airband and telephone to potentially permit TDA access during 'away from field' times still seems like a very helpful approach to us from the BHPA side and I believe the BGA also saw potential benefits. We're keen to work with you on this as mentioned in the discussion if that would be helpful.

Kind regards,

[REDACTED]

On Mon, Feb 8, 2021 at 8:13 PM [REDACTED] > wrote:

Dear aviation stakeholder,

- As promised, here is the agenda:
- Introductions & Webex protocols
 - SkyGuardian v Protector (different ACPs)
 - ACP process for a TDA
 - Brief on TDA requirement, design and operation
 - TDA Management
 - Draft flying schedule
 - Questions received to date

This is your invitation to join the Webex for ACP-2020-100 (SkyGuardian TDAs). Please find below details of how to join the Webex, either online or by telephone. You will be able to join from 0845hrs on the day. It may be worth trying to join a little early in order to avoid last minute glitches and missing the beginning of the meeting. You will be automatically muted on entry. The meeting will start promptly at 0900hrs.

Please ensure any questions you would like addressing during the meeting are forwarded in writing to UASCDC-ACP@cinetiq.com by midday on Monday 8 Feb 2021.

The draft agenda for the meeting will be sent out with an update on Monday afternoon.

[REDACTED]

ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

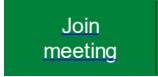
Telephone No: 01 [REDACTED].am



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-- Do not delete or change any of the following text. --

When it's time, join your Webex meeting here.



More ways to join:

Join from the meeting link

<https://qinetiquk.webex.com/qinetiquk/j.php?MTID=m491168eb932d55fcfd23c4320ec7a5e>

Join by meeting number

Meeting number (access code): 181 653 2256

Meeting password: 2pSQWWx2NbY9 (27779992 from phones and video systems)

Tap to join from a mobile device (attendees only)

[+44-20-7660-8149](tel:+44-20-7660-8149), [1816532256](tel:+44-20-7660-8149)#[27779992](tel:+44-20-7660-8149)# United Kingdom Toll

Some mobile devices may ask attendees to enter a numeric meeting password.

Join by phone

+44-20-7660-8149 United Kingdom Toll

[Global call-in numbers](#)

Join from a video system or application

Dial [1816532256](tel:+44-20-7660-8149)@[qinetiquk.webex.com](mailto:qinetiquk@lync.webex.com)

You can also dial 62.109.219.4 and enter your meeting number.

Join using Microsoft Lync or Microsoft Skype for Business

Dial [1816532256](tel:+44-20-7660-8149).qinetiquk@lync.webex.com

If you are a host, [click here](#) to view host information.

Need help? Go to <https://help.webex.com>

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Archived: 07 April 2021 16:21:42

From: [REDACTED]

Sent: 07 April 2021 16:01:00

To: [REDACTED]

Cc: [REDACTED]

Subject: UC ACP-2020-100 - SkyGuardian TDAs Glider Meeting Follow-up

Sensitivity: Normal

Attachments:

DSC Waddington TDP and impact analysis.pdf; ACP2020-100 BGA response 15 Feb 21.pdf

Dear all,

I hope you all survived the Easter break and were able to get out and commit some airborne activity. The purpose of this email is to provide a quick summary of our meeting on 4 March 21 and to provide an introduction to the Waddington and Lossiemouth POCs for the TDAs (ACP-2020-100). I didn't provide notes after our meeting but there has certainly been some follow-on activity and discussion within the MOD.

[REDACTED] (Lossiemouth) and [REDACTED] (Waddington) are my POCs in ATC at the respective units and will (where appropriate) take up the baton to engage further where there is merit. [REDACTED] already has questions about your activities which he is best placed to take up with you directly.

Could I ask for you ([REDACTED]) to check my notes below and let me know if there is anything I have missed?

Summary of Meeting – 4 March 2021

Present		
[REDACTED]	Change Sponsor	MOD
[REDACTED]	ACP Manager / Sponsor	UAS CDC
[REDACTED]	ATM Safety Engineer	UAS CDC
[REDACTED]	Chair	British Hang-gliding and Paragliding Association (BHPA)
[REDACTED]	Airspace Officer	Derbyshire Soaring Club
[REDACTED]	CEO	British gliding Association (BGA)
[REDACTED]		Deeside Gliding Club (?)
Apologies		
[REDACTED]		Lincolnshire Gliding Club

I'm going to use the one word "gliding" to cover all activities encompassed by paragliding, hang-gliding, gliding etc for ease in this email. Please don't take offence!

Material had been provided by both [REDACTED] regarding gliding hotspots in the vicinity of Waddington and were also aware of the activity at Fulmar / Highland Gliding Club in the vicinity of Lossiemouth (see attachments). The attendees discussed potential means to minimise the impact on gliding activity in both locations and the MOD agreed to take away suggestions for further investigation. These were (current progress in italics in line):

- Size and location of TDAs;
 - *Waddington TDA reduced to 5 NM radius circle, which frees up the area to the west of Waddington which is a glider hotspot;*
 - *Lossiemouth TDA slightly reduced in size and relocated further out over sea to enable Fulmar/Highland to continue unhindered;*
- Potential to deconflict SkyGuardian activity with EG R313 activity;
 - *MOD investigating;*
- Co-ordinate SkyGuardian departure times from Waddington in particular, in order to deconflict with cross-country profiles which routinely route between Scampton and Waddington at altitudes approx 4000 - 4500 ft on days with a favourable westerly airstream;
 - *SkyGuardian will be programmed to get airborne by 1000 hrs for the most part (awaiting final fly-prag);*
- Determine if SkyGuardian can remain within the lateral confines of the ATZ at Waddington in order to allow safe transit of aircraft to the north;
 - *Not possible – SkyGuardian requires minimum 2.5 NM radius spiral climb;*
- Take a look at the benefits of Open Glider Network and Gldemet for situational awareness (SA) in ATC/ops;
 - *Raised with ATCUs – Waddington already uses one of the systems for SA in Approach Room;*
- Use of a text-based system to provide info on TDA activity (speak to [REDACTED] for further info);
 - *Require Waddington POC to engage with [REDACTED] to assess benefits (for Protector as well as SkyGuardian)*
- Use of ATIS to provide info on TDA activity;
 - *MOD investigating – possible with current eqpt, but unlikely post-MARSHALL eqpt fit. Waddington POC to follow-up with [REDACTED]*

It is understood that the cross-country activity that the Derbyshire/Lincs gliding community pursue occurs on no set days, but can be forecast a day or 2 in advance when the advantageous weather systems prevail. If there are set dates for competitions it would be useful to be advised in advance.

The ACP submission has been presented to the CAA and the documents are uploaded to the CAA portal here [Airspace change proposal public view \(caa.co.uk\)](https://www.caa.co.uk/airspace-change-proposal-public-view)

Next Steps:

Can I now ask for [REDACTED] to engage where appropriate to identify what further benefits can be achieved? [REDACTED] please note that the BGA recommends you also get in touch with the clubs at Buckminster, Cranwell, Darlton and Trent Valley if you haven't already.

Happy to provide assistance where possible.

[REDACTED]

ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

M [REDACTED]
Email: UASCDC-ACP@cinetiq.com



Please consider the environment before printing this email.

Archived: 09 April 2021 09:44:59
From: [REDACTED]
Sent: 08 April 2021 20:20:22
To: [REDACTED]
Subject: Re: UC FW: Temple Bruer Ops
Sensitivity: Normal

Dear [REDACTED]
Thanks again, I've been contacted by Cranwell ATC and will be talking to them very soon.
Regards... [REDACTED]

Sent from my iPhone

On 8 Apr 2021, at 16:55, [REDACTED] > wrote:

Dear [REDACTED]

Please see below an email trail between me and [REDACTED] at Waddington ATC who is heavily involved with the integration of SkyGuardian this summer and with whom I conduct most of my management discussions for the Waddington TDA.

It would seem that Cranwell is looking to formalise the Temple Bruer procedures for the TDA activations but that you should not anticipate any changes to the current means of access except that Temple Bruer pilots are likely to be provided with a Danger Area Crossing clearance should you wish to transit any part of the TDA. In this case, you might be asked to hold clear for a short time if SkyGuardian happens to be in the TDA during its departure or recovery profiles. Any hold should be minimal.

You can expect to be contacted by Cranwell ATC in the near future to formalise these procedures. I hope that sets your mind at rest and that you can all look forward to some decent flying this summer.

[REDACTED]
ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

[REDACTED]
Email: UASDC-ACP@qinetiq.com

<image001.jpg>

 Please consider the environment before printing this email.

From: [REDACTED] >
Sent: 08 April 2021 16:31
To: [REDACTED]
Subject: RE: Temple Bruer Ops

Further to the below. Having just spoken with Cranwell SATCO, they are planning to contact Temple Bruer to develop a longer term LOA. Here's an excerpt from the Wad/Cwl SQEP panel discussion:

"How will the TDA impact on operations from Temple Bruer? [Cranwell POC] is going to use his contacts at the LAUG to speak with TB and discuss a plan of action. In the absence of a LOA with TB, I think this may be an email trail with them acknowledging the departure/inbound profile will be strictly due East and West, to remove the risk of them clipping the TDA."

That said, a DACS will be provided to any Temple Bruer traffic that would like to cross the TDA in line with the intention outlined in the trail below.

[REDACTED]
[REDACTED] | SkyGuardian Dep ProjO | C Flt Cdr | Air Traffic Control | RAF Waddington, Lincoln, LN5 9NB | [REDACTED]

From: [REDACTED]
Sent: 07 April 2021 13:15
To: [REDACTED]
Subject: RE: Temple Bruer Ops

Hi [REDACTED]

Summarising my discussions over the past months with the safety team here and with SATCO Cranwell, the procedure is likely to remain as it stands, with Cranwell requesting a crossing before they're airborne. If they're inbound, they can call Wad for a crossing and we'll pass information to Cranwell. Other than receiving a TDA crossing clearance, I'd be surprised if Temple Bruer notice any significant difference to their day-to-day activity – unless they purposefully plan to get airborne during the exact same short window SG is in the airspace, climbing/descending, where we may ask them to hold for a few minutes.

What are their specific concerns? I could address them one-by-one but with the caveat that our safety assessment must be allowed to come to an objective answer to the safest way to manage our activity, jointly. The safety assessment is our next step following the completion of a series of SQEP panels today. Hazard analysis begins at a workshop at Wad on Tue 13 Apr and I expect a first draft to be completed no earlier than the end of Apr.

I'm open to a direct discussion including representatives from Temple Bruer and ATC, RAF Cranwell, if that would be useful?

[REDACTED]
[REDACTED] | SkyGuardian Dep ProjO | C Flt Cdr | Air Traffic Control | RAF Waddington, Lincoln, LN5 9NB | [REDACTED]

From: [REDACTED] >
Sent: 07 April 2021 12:11
To: [REDACTED]
Subject: Temple Bruer Ops

Hi [REDACTED]

I have been asked to provide some additional evidence to the CAA for the TDA submission. As you know the MOD received several objections and concerns from the operators at Temple Bruer. I would like to be able to write to my Temple Bruer POC providing details on how they will operate once the TDA is active. I am aware that you thought they would be able to continue as they currently do, but would like you to confirm if this is correct.

[REDACTED]
ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

[REDACTED]
Email: UASDC-ACP@qinetiq.com

<image001.jpg>



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Archived: 08 April 2021 16:59:51

From: [REDACTED]

Sent: 07 April 2021 20:09:11

To: UASCDC-ACP

Subject: Re: UC ACP - 2021-100

Sensitivity: Normal

Hi [REDACTED]

Thanks for the info, much appreciated.

The Temple Bruer pilots have assured me that they are happy for me to be the conduit for communication and I can assure you that any information I receive will be disseminated to all those involved.

Kind regards... [REDACTED]

Sent from my iPad

> On 7 Apr 2021, at 17:16, UASCDC-ACP [REDACTED] wrote:

>

> Dear [REDACTED]

>

> I have updated the pilots from Temple Bruer who responded to the TDA ACP engagement in Feb and March, to advise that the TDA proposal has been reduced in size. I am also awaiting confirmation from Waddington ATC who will be the TDA Control Authority that procedures at Temple Bruer will be able to continue with calls to Cranwell and departures and arrivals pretty much as they currently do. The CAA is keen to understand that the MOD is doing its best to accommodate the Temple Bruer activity.

>

> Can I assume that when confirmation is forthcoming, I can send it to you for comment on behalf of the pilot cadre at Temple Bruer? It would be very useful if I could. I will of course update them myself in due course.

>

> I hope to be in touch tomorrow, but thought I would check if you were still willing to be the spokesperson!

>

> [REDACTED]

>

> ATM Specialist and ACP Manager

> Defence UAS Capability Development Centre

>

> [REDACTED]
> Email: UASCDC-ACP@qinetiq.com

>

> Please consider the environment before printing this email.

>

> -----Original Message-----

> From: [REDACTED]

> Sent: 09 February 2021 12:46

> To: [REDACTED]

> Subject: ACP - 2021-100

>

> Dear [REDACTED]

> Thank you for organising and hosting today's Webinar.

> I represent 19 pilots and owners who operate 15 aircraft based at Temple Bruer.

> We normally have more than 500 movements per year with the larger proportion of these occurring between April and September.

> You will receive my formal feedback submission in the next few days but in the meantime can I personally ask you to give very serious consideration to a modification of the proposed design to provide access to Temple Bruer during the TDA activation.

> Our circuit height is 500 ft and we are regularly asked by Cranwell or Waddington ATCS to remain below 1000ft as we depart or recover through their MATZs to avoid disruption to their traffic.

> If the TDA base could be stepped up to 1500 or even 1000ft at its SE corner we could operate without increasing workload to ourselves and the providers of DACS.

> Alternatively, a low level entry and departure corridor could achieve the same result.

> The SkyGuardian trial offers an opportunity to demonstrate that our operations can dovetail with Protector when the permanent airspace requirements are introduced.

> Kind Regards... [REDACTED]

> Sent from my iPad

>

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2 Mar 21

MOD RESPONSE TO AIRSPACE CHANGE PROPOSAL - ACP-2020-100

1. This document forms the wider MOD response to ACP-2020-100, the proposal to establish Temporary Danger Areas (TDAs) in the vicinity of RAF Lossiemouth and RAF Waddington during the Summer of 2021 for Sky Guardian (SG) operations.
2. DAATM engaged a wide range of MOD stakeholders and the following feedback has been collated from Defence Infrastructure Organisation (DIO), RAF Lossiemouth, RAF Lincs (which is the term given in this document to the combined area of responsibilities of RAF Coningsby, RAF Cranwell, RAF Scampton and RAF Waddington), RAF(U) Swanwick, Battlespace Management (BM) Force HQ and BM Operations.
3. Whilst the engagement took into account the fact that final flight profiles of SG were not available, it allowed initial feedback to be given on the TDA designs with the information available at the time. The MOD would require to adjust this feedback once more detailed technical data and performance limitations are known.
4. Overall there was no objection to the TDA proposals; however, there were multiple questions and areas that require further work to ensure all airspace users can operate safely with the minimum of disruption to MOD operations. They are described below, grouped by stakeholder relevance.

DIO

5. EG D305 Beckingham is inside the proposed TDA around RAF Waddington. DIO would like confirmation that their operations will continue unhindered.

RAF Lossiemouth

6. RAF Lossiemouth is a Quick Reaction Alert (QRA) station and operates 24/7 to facilitate no-notice national and airborne security missions which are the MOD's highest priority. It is also a busy Main Operating base with multiple Typhoon squadrons and P8 Poseidon activity. These missions must continue unhindered and therefore SG activity would be required to be managed around them, with suitable prioritisation of flights agreed between SG and Lossiemouth. Lossiemouth are concerned about how SG will integrate with other air traffic within the TDA. To this end they would look to develop procedures that deconflict SG from other flying activity, rather than full integration from the start, due to the temporary nature of SG flying activity planned from Lossiemouth. QRA activity requires separate liaison and is covered in the BM Force section below.
7. **TDA Control Authority, Activation and DACS.** Lossiemouth are content to act as TDA controlling authority during hours of activation and provide a Danger Area Crossing Service (DACs) to other military and civilian traffic. Activation is anticipated to be by NOTAM and Lossiemouth would like to discuss who has responsibility for issuing and cancelling NOTAMs regarding SG activity. Lossiemouth would prefer the TDA to be active for the entire period that SG is airborne as there is minimal LARS traffic in the area and this also reduces complexity and ambiguity for other airspace users. Lossiemouth have stated that they would only restrict access to the TDA when necessary during SG movements and that by keeping the design of the TDA as simple as possible will allow Lossiemouth to tactically manage access to the TDA. More clarity would be required on separation standards or requirements for SG as well as the types of air traffic service SG can accept. Local orders and relevant promulgation methods need to be determined to train Lossiemouth ATC and inform other airspace users of how to access the TDA.

8. **ATM Procedures.** Lossiemouth anticipate that normal SSR codes will be allocated to SG. Lossiemouth request that the coordinates of the TDA are confirmed at the earliest opportunity so that they can be plotted on the radar surveillance equipment and captured in mission planning tools. Access to the TDA by RAF(U) Swanwick may be required but this will be subject to authorisation from Lossiemouth and any agreements covered in an LoA. Access to the TDA by Distress and Diversion Cell (D&D) for control of emergency aircraft will be covered by discussions between Lossiemouth and D&D.
9. **Local Airspace Users.** Lossiemouth have identified the following local stakeholders that will require engagement and will undoubtedly lead to a temporary LoA to cover amendments or additions to current procedures and agreements:
- a. **Inverness.** The proposed TDA should not impact on their operations and local agreements for access into the TDA for high priority flights (e.g. Cat A and B) will need to be made. Require engagement and inclusion in temporary LoA for situational awareness (SA).
 - b. **EG D703 Tain.** Tain are aware of the proposal and have no anticipated issues. Require engagement and inclusion in temporary LoA for situational awareness (SA).
 - c. **Easterton Gliding Site.** Easterton is just inside the south-eastern edge of the proposed TDA. An agreement with Lossiemouth ATC would be required for them to operate, or the preferred option would be to reduce the TDA area to allow them to operate autonomously.
 - d. **Aberdeen.** No anticipated issues. Require engagement and inclusion in temporary LoA for situational awareness (SA).
 - e. **Shempston.** No anticipated issues. Require engagement and inclusion in temporary LoA for situational awareness (SA).
 - f. **Scottish Civil Sectors (NATS at Prestwick Centre).** No anticipated issues. Require engagement and inclusion in temporary LoA for situational awareness (SA).
10. **SG Liaison.** To address the above concerns Lossiemouth have identified that early planning, local stakeholder engagement, robust procedures and Letters of Agreement are key to achieving this. Continued early engagement with SG specifically regarding flight profiles and performance limitations is imperative to allow Lossiemouth to undertake the required liaison and safety work to be able to safely manage QRA launches, stn and SG flying, DACS traffic and other local airspace users.

RAF Lincs

11. Combined feedback under the umbrella term 'RAF Lincs' has been obtained from the MOD airfields listed in para 2. This section describes the main concerns emanating from those stations following a meeting between them in Feb 21.
12. **TDA Control Authority, Activation and DACS.** Waddington are content to act as TDA controlling authority during hours of activation and provide a Danger Area Crossing Service (DACs) to other military and civilian traffic. Waddington would like to discuss with SG and DAATM about the activation of the TDA for long periods when SG is flying elsewhere, i.e. the 'endurance' sorties of up to 24 hours. If the TDA is active for the entirety of the time SG is airborne, then this would put a burden on ATC resources. Activation of the TDA in a more flexible manner; for example, block periods around take-off and landing may be a solution that would alleviate resource issues and also allow maximum usage of the airspace by other users. This would also have to take into account lost link or emergency procedures as well as identify suitable 'loiter' areas.

13. **RAF Lincs Operational Impacts of the TDA.** The impacts on adjacent MOD airfields is as follows:
- a. **RAF Coningsby.** Current TDA dimensions would affect instrument recoveries and potentially funnel visual recoveries. A change to the TDA dimensions, segregation of the TDA or some form of transit/access agreement with Waddington ATC would all be suitable solutions.
 - b. **RAF Cranwell.** Current TDA dimensions would affect the Cranwell ATZ/MATZ, radar patterns, relief landing grounds (RLGs), various local landing strips and other airfield approach and departure profiles. Cranwell would like to explore the possibility of amending the TDA dimensions (vertically and/or laterally) or develop a local agreement with Waddington for TDA access.
 - c. **RAF Scampton/RAFAT.** The TDA overlaps with EG R313. RAFAT operations are of a high priority and international significance. Reducing the dimensions of the TDA, or using local sub-divisions managed by Waddington are two possible solutions to enable both sets of activity to be undertaken simultaneously. Otherwise RAFAT would like clarification at Gp level as to who has the greater priority when there is a confliction for use of the airspace that cannot be solved.
14. **ATM Procedures.** Access to the TDA by other Units can be covered in an LoA and managed by Waddington ATC. Waddington are well-practised in managing R313 between local Units and RAF (U) Swanwick and would use these procedures as a template. Sub-dividing the TDA may also be an option for Waddington to manage access to other airspace users.
15. **SG Type of Service (ToS).** The MOD would like to clarify if SG will be mandated to receive a deconfliction service (DS) whilst operating outside of CAS. By mandating a DS it increases the burden on ATC and potentially introduces more restrictions on other airspace users.
16. **Local Airspace Users.** Work would need to be undertaken by RAF Lincs to identify local airfield and airspace users that the TDA would impact upon. It is anticipated that local agreements would be required to ensure their operations can continue when the TDA is active.
17. **SG Liaison.** It is anticipated that assistance from the Space and Battlespace Management Force HQ will be required; therefore, early planning, local stakeholder engagement, robust procedures and Letters of Agreement are key to achieving success. Information from SG regarding flight profiles and performance limitations is imperative to allow RAF Lincs to undertake the required liaison and safety work to be able to safely manage QRA launches, stn and SG flying, DACS traffic and other local airspace users.

RAF(U) Swanwick

18. **TDA Airspace Access.** RAF(U) Swanwick require agreements to be in place with Lossiemouth and Waddington to enable aircraft under their (and D&Ds) control to operate in and around the TDA when required.
19. **Mapping.** Due to the equipment limitations of NATS major AIRAC update schedule, the coordinates of the TDA need to be with RAF(U) Swanwick by 12 Mar 21 for them to be accurately plotted onto the surveillance screen.
20. **Emergencies/Lost Link Procedures.** RAF(U) Swanwick would like to understand what the flight profiles are for lost link or emergency procedures when SG is operating away from the TDA. This will enable them and NATS to know what to expect in the event of an emergency or lost link. This is also pertinent to any Unit, military or civil who are likely to provide an ATS to SG.

21. **SG Flying Programme.** RAF(U) Swanwick require advanced notification of planned SG flying so that they can ensure sufficient resources are available for ATS provision in accordance with their priority list. This should be sent to the following email address - [REDACTED]

BM Force HQ and BM Operations

22. **Airborne Security Incidents.** Airborne Security operations must not be affected by SG operations. Specific QRA/Air Policing type Table Top Exercises (TTX) or Workshops are required, to include at least some or all of the following; the Control and Reporting Centre (CRC), RAF(U) Swanwick, RAF Lossiemouth and RAF Coningsby as these are the main players in a QRA/Air Policing mission.

23. **Training.** The MOD would need to consider what, if any, ATC training requirements will be required for SG ATS provision. Once more information from SG is available on flight profiles, this work will be identified by the relevant Air Traffic Service Units (ATSUs) and guidance sought from the relevant areas.

Miscellaneous Airspace Matters

24. **Diversion Commitments at Waddington and Lossiemouth.** Clarification is required on how the establishment of a TDA at Waddington or Lossiemouth will affect other Units and Squadron's ability to book those airfields as diversion airfields for normal operations. Squadrons request that there are no time limitations for booking a diversion, or refusals of such requests. Lossiemouth have indicated that they anticipate diversions to be catered for as per extant orders, however both Waddington and Lossiemouth will require more specific information from SG on how the airframe will operate before developing procedures will help confirm this.

25. **Diversion Airfields for SG.** The MOD would like clarification on any procedures that are required for SG to divert into other military and civilian airfields other than Waddington and Lossiemouth.

26. **OAT/GAT.** The MOD would like confirmation of whether SG can fly GAT as well as OAT and which one the sorties will be flown as. The MOD believe it will be beneficial for the SG Team to hold talk with NATS to discuss their requirements and identify any limitations for ATS provision. Potential CAS joining or crossing procedures may also need to be agreed upon between relevant ATSUs.

Technical Questions and Non-Airspace Matters

27. The MOD require further information on the following technical matters (which may have already been alluded to above) to enable requisite safety work to be undertaken and procedures created:

- a. Clarification on lost link procedures and diversions.
- b. Radio communications, is SG VHF and UHF equipped?
- c. Classifications of airspace SG is approved to fly in (including Danger Areas/Managed Danger Areas).
- d. What safety work is required of the MOD for SG operations in Class G airspace, as well as CAS?

28. Further clarification and work is required between SG and the rest of the MOD to ensure that the points above have been considered and agreements drafted to ensure that SG and other airspace users can operate safely.

Archived: 09 April 2021 15:17:37
From: [REDACTED]
Sent: 09 April 2021 12:44:37
To: [REDACTED]
Subject: Fw: 20210918-SkyGuardian21 ACP MOD Responses
Sensitivity: Normal

Is this the one? I can only get this to you in this format, sorry! It's not letting me create a PDF or attach it in a useful format that normal outlook does.

From: [REDACTED]
Sent: 18 February 2021 14:48
To: [REDACTED]

Subject: 20210918-SkyGuardian21 ACP MOD Responses

Good Afternoon Sir, Ma'am, All,

Thank you for attending the Sky Guardian (SG) mtg earlier, I hope it was useful? PP attached for reference.

To assist you with your formal response to DAATM, please find a summary below of the main talking points/issues that I think are relevant from your point of view. Clearly you are the SMEs here, this is purely to allow you to build on what we talked about so we can formally record it for the CAA submission and also get you talking to the relevant teams to help solve any issues. Use the information you have now, as we cannot afford to wait until certain elements have been confirmed otherwise time will run out. What we discussed is 'worst case', and has the biggest restrictions, so we are planning for that and anything better will be a bonus. That is the nature of TDAs.

Feel free to pass onto other relevant pers, but I have distributed this to all those that were present. I shall leave you to coordinate internally at each Unit as to who replies and it would be useful if you could confirm who the relevant POC for each Unit/Sqn etc should be so we can target future engagement efficiently, thanks in advance.

Please feel free to use this as your formal response that was required back to me by COP 24 Feb 21. Remember I require the following as a minimum:

[How does the TDA impact you/your AOR?](#)
[What solutions/mitigations can be put in place to make this impact manageable and allow you to operate?](#)
[What do you need to start doing \(actions\) and what further info do you require form the SG Proj Team?](#)

For those that have already replied, there is no need to duplicate. Any major issues achieving this deadline should be directed to me so we can discuss.

[Summary as follows – pls add comments where relevant.](#)

Airspace Management

- **Control Authority** for the TDAs will be Waddington (WAD) and Lossiemouth (LOS) ATC. No issues.
- **Activation hours.** Current assumptions are that the TDA will be activated for the entirety of the SG flying window, this could be a short fg window or for one occasion, potentially up to 24hrs.
 - What impacts does this have on your AOR? How can you mitigate this, or is it a showstopper? What solution will make this tolerable for you?
 - Flexible activations (inside 24hrs) are unlikely to be approved by the CAA as it does not give sufficient time for other airspace users to be informed.
 - There may be solutions to activate the TDA for times around take-off and landing, or a shorter period of time, if longer activation times are an issue for other airspace users. This is more complicated and gives SG less flexibility in the event of a delay, plus it potentially adds risk to the fg prog (see below).
 - SG not able to use other airfields in the event of an emergency where flight back to WAD/LOS is possible. Landing at another airfield would mean ENDEX for the entire Summer programme of flying. Hence why the TDA needs to be active for the duration of the flight. Emergency Restrictions of Flying in the event of an emergency and requiring to transit non-seg airspace??
 - Tactical management of the TDA will be done by WAD/LOS will ensure access for mil and civil users. Suggested actions on WAD/LOS to develop TDA management procedures/orders. Liaison with SG required for this.
- **Method of Activation.** NOTAM at least 24 hrs in advance.
- **DACS.** Provided by WAD/LOS ATC.
 - Suggested actions?– develop orders/procedures for controllers to provide a DACS and deconflict airspace users – comments?
 - Do you have the resources to provide a DACS for the entire time that the TDA is active? If not what do you need to do to make this happen?
- **Other Airspace Restrictions.**
 - **D305?** Comment from DIO/SG??
 - **R313.** Reds require flexibility to access to R313 as they have priority taskings. Damo/Scampton/Liam – can you add some more here pls? What actions are required – sharing fly pros, procedures for arbitration of who has priority..?
- **ATM Procedures**
 - **SSR Codes.** Normal codes used by ATC.
 - **Swk Mil Surveillance Display.** Swk Mil require the cords for the TDAs by 15 Mar due to NATS AIRAC update limitations. SWK – suggested actions - what are the workarounds/mitigations if this doesn't happen, or the TDA dimensions change after wards (they wont get bigger).
 - **Swk Mil.** Access required in the TDA due to operating in the area. Actions required to agree on this (WAD/LOS/SWK)? Mitigations/impacts if permission not obtained?
 - **D&D Emergency Access.** Emergency ac will be controlled as per extant orders/procedures. Are there any differences in notification or coordination of an emergency ac operating near the TDA. Suggested actions – WAD/LOS to discuss with D&D at SWK.
 - **TDA Access by Mil Users.** Actions for all – how does this affect you? What do you need in place to access the TDA? Standing permission from WAD/LOS? Suggested actions – once identified, liaise with WAD/LOS/SG as relevant to formalise an agreement.
 - **LoAs.** How will this TDA impact current LoAs with other civil/mil Units/users? Are new ones required to facilitate any of the above actions...? Suggested actions – identify which LoAs require updating or drafting.
 - **QRA.** How will Q be controlled through the TDA – extra notifications/procedures required? Suggested actions on ASACS/SWK/LOS/WAD. Also action on SG/LOS/Coningsby/(ASACS?) to initiate a TTX for Q scenarios.
- **Diversion Commitments.** Requirement for aircrew to book WAD/LOS as a div commitment. How will SG impact on this? WAD/LOS to investigate any impact on div commitments either pre-tactical (accepting them) or tactical (real time dealing with a div). Inform relevant fg sqns of any impact, or mitigations etc.
- **Any other comments.**

Thanks again for you inputs, comments and cross-examinations today and what I assume will keep coming in over the next few months as the process continues. Please fee free to contact me or go direct to [REDACTED] the UAS CDC f you need any further info or need to discuss anything.

Regards

[REDACTED] | SO2 Airspace Operations | Defence Airspace and Air Traffic Management |
Aviation House | 1E Beehive Ringroad | Crawley | West Sussex | RH6 0YR | Civilian Telephone [REDACTED]

Archived: 09 April 2021 15:01:16

From: [REDACTED]

Subject: ACP-2020-100 - Notification of TDA Activation Discussion

Sent: 25 February 2021 15:53:33

To: [REDACTED]

Last modification date: 10 March 2021 17:47:10

Reply requested: Yes

Start: 10 March 2021 14:30:00

End: 10 March 2021 15:30:00

*****AGENDA for this afternoon*****

Meeting restricted to 1 hr as most of us have a meeting at 1530 with GA...

Agenda:

1. Objectives & Output
2. Method of TDA notification
3. Wider comms piece (ideas & discussion)
4. Airspace management during TDA activation (including possible perspective from CAA on integration of traffic in other TDAs)
5. AOB

[REDACTED]
Air Traffic Management Specialist
Defence UAS Capability Development Centre

[REDACTED]
Email: agreen6@qinetiq.com



Please consider the environment before printing this email.

[REDACTED]
ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

[REDACTED]
Email: UASCDC-ACP@qinetiq.com



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-- Do not delete or change any of the following text. --

When it's time, join your Webex meeting here.

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Meeting password: MSYmRQPf829 (67996777 from phones and video systems)

Tap to join from a mobile device (attendees only)

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Archived: 09 April 2021 15:08:19

From: [REDACTED]

Sent: 09 March 2021 15:54:00

To: [REDACTED]

Subject: UC FW: RAF Lossiemouth Virtual Site Survey Day 2

Last modification date: 07 April 2021 14:17:16

Reply requested: Yes

Response requested: Yes

Conversation: UC FW: RAF Lossiemouth Virtual Site Survey Day 2

-----Original Appointment-----

From: [REDACTED]

Sent: 06 March 2021 14:58

To: [REDACTED]

Subject: RAF Lossiemouth Virtual Site Survey Day 2

When: 11 March 2021 16:00-18:00 (UTC+00:00) Dublin, Edinburgh, Lisbon, London.

Where: Microsoft Teams Meeting

Ma'am, Sir, All,

Agenda for virtual SS of RAF Lossiemouth. Further suggestions welcome and expected. Below is baseline plan:

Day 1 – Welcome introductions. Identification of individual SME's from all parties
Master Air Operations Plan update to re-baseline current plan for SG2UK21
Logs - initial arrival (air and ground), build and set-up in HAS. Rain plan?
Infra & Equipment
CIS/Cyber
Physical Security – base passes, travel from Waddington to Lossiemouth (air & ground),
departure from Lossiemouth to Air Point of Departure
VIP and experience days

Day 2 – Flight Operations 'Deep Dive'

- Day 1 Ops – crawl, walk, run principle
- Airfield interaction
- ATC interaction
- Airspace management plan
- Additional RAF personnel required to support Ops – training required
- Real Life Support required by GA

[REDACTED] Please distribute wider and provide additional discussion points as required.

[REDACTED]

Archived: 09 April 2021 15:07:11

From: [Redacted]

Sent: 27 February 2021 16:33:38

To: [Redacted]

Cc: [Redacted]

Subject: SG2UK21 Virtual Site Survey

Last modification date: 04 March 2021 19:49:35

Reply requested: Yes

Response requested: Yes

End: 08 March 2021 16:00:00

Conversation: SG2UK21 Virtual Site Survey

This invite will transfer to Teams tomorrow. Place holder for the invitation from [Redacted] Please feel free to distribute to your wider Team.

Day 1 – Logs / Infra / CIS / Physical Sy

Day 2 – Ops Deep Dive / RLS

VIP Days – allocation TBC

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

Archived: 09 April 2021 15:13:14

From: [REDACTED]

Sent: 12 March 2021 17:28:00

To: [REDACTED]

Cc: [REDACTED]

Subject: UC SkyGuardian TDA Co-ords for Radar mapping (both)

Sensitivity: Normal

[REDACTED]

The co-ords for the TDAs are below.

Waddington Areas A & B identical lateral dimensions:

Area A - A circle, radius 5 NM, centred on 530958N 0003126W
Area B - A circle, radius 5 NM, centred on 530958N 0003126W

Lossiemouth Areas A & B identical lateral dimensions:

Area A :
574550N 0032703W -
575243N 0031450W thence clockwise by the arc of a circle, radius 5 NM, centred on
574917N 0030803W to
574550N 0030118W -
573858N 0031331W thence clockwise by the arc of a circle, radius 5 NM, centred on
574224N 0032016W to
574550N 0032703W.

Area B :
574550N 0032703W -
575243N 0031450W thence clockwise by the arc of a circle, radius 5 NM, centred on
574917N 0030803W to
574550N 0030118W -
573858N 0031331W thence clockwise by the arc of a circle, radius 5 NM, centred on
574224N 0032016W to
574550N 0032703W.

Pictorial representation attached also for SA.

[REDACTED]

ATM Specialist and ACP Manager
Defence UAS Capability Development Centre

[REDACTED]
Email: UASCDC-ACP@qinetiq.com



 Please consider the environment before printing this email.

Appendix C – Follow-up from Webex for Civilian Stakeholders

During the Webex for civilian aviation stakeholders, the Change Sponsor undertook to provide more information as it became available concerning several areas. Table C-1 below summarises those areas and provides further information where possible/available.

ID	Statement from Webex	Response from Change Sponsor
1	Procedures will be put in place to minimize impact on Helimed operations (and other Cat A/B flights). To be discussed at the workshop with MOD stakeholders. Clarification will be forthcoming. This will also encompass Search and Rescue, Police and other emergency operations.	Normal procedures as per UK regulation will be in place for Cat A and B flights to gain access to the TDAs. Similar procedures will be afforded non-Cat A & B flights (national services e.g. pipeline, powerline inspections) to enable access when safe to do so.
2	Climb and descent profiles; Whilst it had not been the MOD's intention to share specifics about the flight profiles, there might be an opportunity to do this. The host would investigate and report back asap.	SkyGuardian will adopt a spiral climb and descent profile within the TDAs. SkyGuardian will not routinely remain/operate in the TDA – it will climb out or recover through it as expeditiously as possible. More information may be available once the TDAs have been approved.
3	Provision of a Danger Area Crossing Service (DACS)	A DACS has been approved for both locations and will be provided by Waddington and Lossiemouth ATC as appropriate during the hours of TDA activation (see MOD feedback provided in Appendix B).
4	ATC opening times	ATC at Waddington and Lossiemouth, as appropriate, will be open during the hours of TDA activation.
5	Does Protector / SkyGuardian carry FLARM?	No, neither aircraft will carry FLARM.
6	Will the RPAS operators have access to Glidernet	No, it is not envisaged that the RPAS operators will have access to Glidernet.
7	Will any changes be required to the LOA between the MOD and Doncaster airport regarding the Class E airspace to the east of Gamston?	Waddington ATC is in communication with Doncaster airport over this and other matters.
8	How will you deal with the loss of datalink for flights between 3000 ft and FL100	GA-ASI has presented its Operating Safety Case to the CAA for approval. If approval is gained the Change Sponsor hopes to be able to answer this question.

Appendix D – Summary of Military Stakeholder Workshop

Presentation

The presentation given at the workshop is included at the end of this Appendix. It shows the agenda and areas for discussion.

Objectives and Output

The objectives of the workshop were:

- To bring all identified military stakeholders up to speed with the TDA proposal
- To understand how the TDAs will be managed
- To ensure the perceived impact on other military users (aerodromes and operators) is understood
- To identify how the impact on all (including civilian) airspace users can be minimised
- To produce an Action Plan for all participants, where relevant, and an agreed timescale for completion

The key output was to agree an action plan.

Summary of Workshop

Table D-1 provides a summary of the workshop discussion points

<i>Table D-1 Summary of Discussion Points</i>	
Present	
Hosts [Redacted]	DAATM Change Sponsor ACP Manager Q&A Manager
Attendees 3FTS 57Sqn ([Redacted]) 6FTS EMUAS OC ([Redacted]) Air 2 GpSpBM ([Redacted]) Air 2 GpSpBM ([Redacted]) [Redacted] Air RAF Safety Centre ([Redacted]) [Redacted] CAFHQ Ltng STANEVAL ([Redacted]) [Redacted] CON ATC DSATCO ([Redacted]) [Redacted] CON ATC SATCO ([Redacted]) CON OC Ops ([Redacted]) CRN 45 Sqn ([Redacted]) CRN ATC ([Redacted]) CRN ATC ([Redacted]) CRN ATC DSATCO ([Redacted]) CRN ATC SATCO ([Redacted]) DAATM ([Redacted]) LOS ATC LEO ([Redacted])	LOS ATC SATCO ([Redacted]) LOS Ops ([Redacted]) LOS Sqn Ldr Ops ([Redacted]) MRM Sqn Ldr Ops ([Redacted]) [Redacted] RAFAT ([Redacted]) SCA Sqn Ldr Ops ([Redacted]) [Redacted] Swanwick Mil ([Redacted]) WAD Air Safety ([Redacted]) WAD ATC ([Redacted]) WAD ATC ([Redacted]) WAD ATC ([Redacted]) WAD ATC ([Redacted]) WAD ATC ([Redacted]) WAD ATC ([Redacted]) WAD ATC DSATCO ([Redacted]) WAD ATC SATCO ([Redacted]) WAD OC Ops Sqn ([Redacted]) [Redacted] Unknown User [Redacted]

Item	Summary
1. Control Authority	Control Authority for the TDAs will be Waddington (WAD) and Lossiemouth (LOS) ATC.
2. TDA Activation	<p>Method of Activation. NOTAM at least 24 hrs in advance.</p> <p>Activation hours. Current assumptions are that the TDA will be activated for the entirety of the SkyGuardian flying window, this could be a short flying window or for one occasion, potentially up to 24hrs.</p> <ul style="list-style-type: none"> • What impacts does this have on units AOR? How can units mitigate this, or is it a showstopper? What solution will make this tolerable for units? • Flexible activations (inside 24hrs) are unlikely to be approved by the CAA as it does not give sufficient time for other airspace users to be informed. • There may be solutions to activate the TDA for times around take-off and landing, or a shorter period of time, if longer activation times are an issue for other airspace users. This is more complicated and gives SkyGuardian less flexibility in the event of a delay, plus it potentially adds risk to the flying programme (see below). • SkyGuardian is not able to use other airfields in the event of an emergency where flight back to WAD/LOS is possible. Landing at another airfield would mean ENDEX for the entire Summer programme of flying. Hence why the TDA needs to be active for the duration of the flight. • Tactical management of the TDA will be done by WAD/LOS to enable access for mil and civil users. Suggested actions on WAD/LOS to develop TDA management procedures/orders. Liaison with SkyGuardian required for this.
3. DACS	<p>Provided by WAD/LOS ATC.</p> <ul style="list-style-type: none"> • Suggested actions – develop orders/procedures for controllers to provide a DACS and deconflict airspace users • Do the ATCUs have the resources to provide a DACS for the entire time that the TDA is active? If not what do they need to do to make this happen?
4. Other Airspace Restrictions.	<ul style="list-style-type: none"> • D305 Comment from DIO/ SkyGuardian [now sits outside TDA] • R313. Reds require flexibility to access to R313 as they have priority taskings. What actions are required e.g sharing flying programmes, develop procedures for arbitration of who has priority
5. SSR codes	SSR Codes. Normal codes used by ATC.
6. Swanwick (Mil)	<ul style="list-style-type: none"> • Surveillance Display. Require the co-ords for the TDAs by 15 Mar due to NATS AIRAC update limitations. Suggested actions - what are the workarounds/mitigations if this doesn't happen, or the TDA dimensions change afterwards (they wont get bigger). • Access required in the TDA due to operating in the area. Actions required to agree on this (WAD/LOS/SWK)? Mitigations/impacts if permission not obtained?

	<ul style="list-style-type: none"> D&D Emergency Access. Emergency aircraft will be controlled as per extant orders/procedures. Are there any differences in notification or coordination of an emergency aircraft operating near the TDA. Suggested actions – WAD/LOS to discuss with D&D at Swanwick(Mil).
7. TDA Access by Mil Users	Actions for all – how does this affect units? What do units need in place to access the TDA? Standing permission from WAD/LOS? Suggested actions – once identified, liaise with WAD/LOS/ SkyGuardian as relevant to formalise an agreement.
8. LOAs	How will this TDA impact current LoAs with other civil/mil Units/users? Are new ones required to facilitate any of the above actions? Suggested actions – identify which LoAs require updating or drafting.
9. QRA	How will QRA be controlled through the TDAs – extra notifications/procedures required? Suggested actions on ASACS/Swanwick(Mil)/LOS/WAD. Also action on SkyGuardian /LOS/Coningsby/(ASACS?) to initiate a TTX for QRA scenarios.
10. Diversion Commitments	Requirement for aircrew to book WAD/LOS as a diversion commitment. How will SkyGuardian impact on this? WAD/LOS to investigate any impact on diversion commitments either pre-tactical (accepting them) or tactical (real time dealing with a diversion). Inform relevant flying squadrons of any impact, or mitigations etc.

Action Plan

- All attendees were required to respond to DAATM, providing feedback on how the TDAs might affect their unit's activities. In particular units were asked to review their current LOAs to identify those requiring amendment for the SkyGuardian deployment. Post-meeting it was proposed to produce one all-encompassing LOA for the Waddington TDA, which would capture any changes to procedures that were required in one document, rather than issue amendments to numerous extant LOAs. Lossiemouth ATC may adopt the same strategy.
- The Change Sponsor undertook to make arrangements to:
 - Further investigate methods of activation and notification for the TDAs [undertaken on 10 Mar 21 – see Outlook meeting request in Appendix B];
 - Discuss ADPF and D&D procedures with GA-ASI and LOS/WAD [undertaken on 8 & 10 Mar 21 – see Outlook meeting requests in Appendix B];
 - Provide the TDA dimensions to Swanwick(Mil) by 12 Mar 21 [complete – see email in Appendix B]



ACP-2020-100

SkyGuardian Operations in UK Airspace Summer 2021

[REDACTED] (DAATM)

[REDACTED] (Air Cap & Delivery)

[REDACTED] (UAS CDC)

MOD Stakeholder Workshop - 18 February 2021

ACP-2020-100 – SkyGuardian TDAs

Agenda:

- Welcome & Introductions
- Workshop Objectives & Output
- Protector v SkyGuardian (different ACPs)
- Recap of the ACP proposal and timelines
- RAF Waddington / Lossiemouth Assumptions
- Draft flying schedule
- Airspace Management
- ATM Procedures
- Other
- AOB

ACP-2020-100 – SkyGuardian TDAs

Welcome & Introductions:

Host:

[REDACTED] (DAATM)

Presenters:

[REDACTED] (Air Capability)

[REDACTED] (UAS CDC Airspace Manager)

Meeting protocols:

- Please stay on mute unless you are invited to unmute
- Save questions until the end of each section
- Use “raise hand” or Chat

ACP-2020-100 – SkyGuardian TDAs

Workshop Objectives & Output:

Objectives

- To bring all identified military stakeholders up to speed with the TDA proposal
- To understand how the TDAs will be managed
- To ensure the perceived impact on other military users (aerodromes and operators) is understood
- To identify how the impact on all (including civilian) airspace users can be minimised
- To produce an Action Plan for all participants, where relevant, and an agreed timescale for completion

ACP-2020-100 – SkyGuardian TDAs

Workshop Objectives & Output:

Output

- Initial Action Plan agreed by all participants, drawn up by Change Sponsor

ACP-2020-100 – SkyGuardian TDAs

Agenda:

- Welcome & Introductions
- Workshop Objectives & Output
- Protector v SkyGuardian (different ACPs)
- Recap of the ACP proposal and timelines
- RAF Waddington / Lossiemouth Assumptions
- Draft flying schedule
- Airspace Management
- ATM Procedures
- Other
- AOB

ACP-2020-100 – SkyGuardian TDAs

This ACP is not to be confused with ACP-2019-18, which is Protector operations from RAF Waddington from 2023

ACP-2020-100 – SkyGuardian TDAs

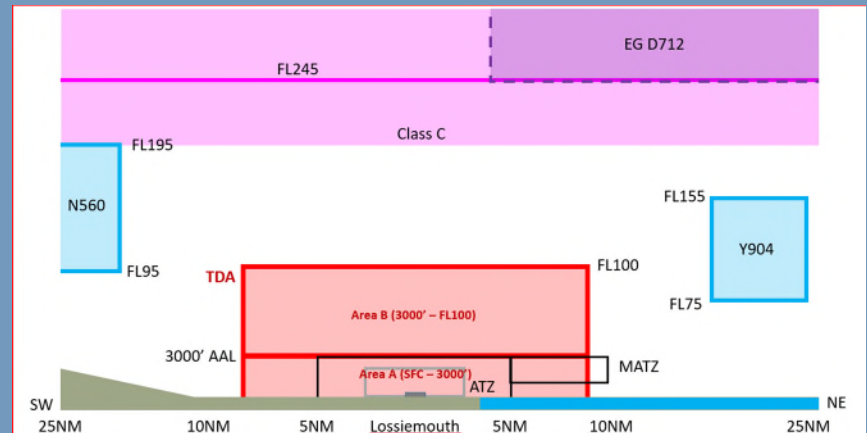
ACP progress so far:

- Statement of Need posted on the ACP Portal
- Assessment Meeting completed
- CAA directed that the means by which to provide segregated airspace iaw its policy (CAP 722) is via implementation of Temporary Danger Areas (TDAs)
- TDA designs presented in engagement letter dated 29 Jan 2021

ACP-2020-100 – SkyGuardian TDAs

Brief on TDA requirement, design and operation

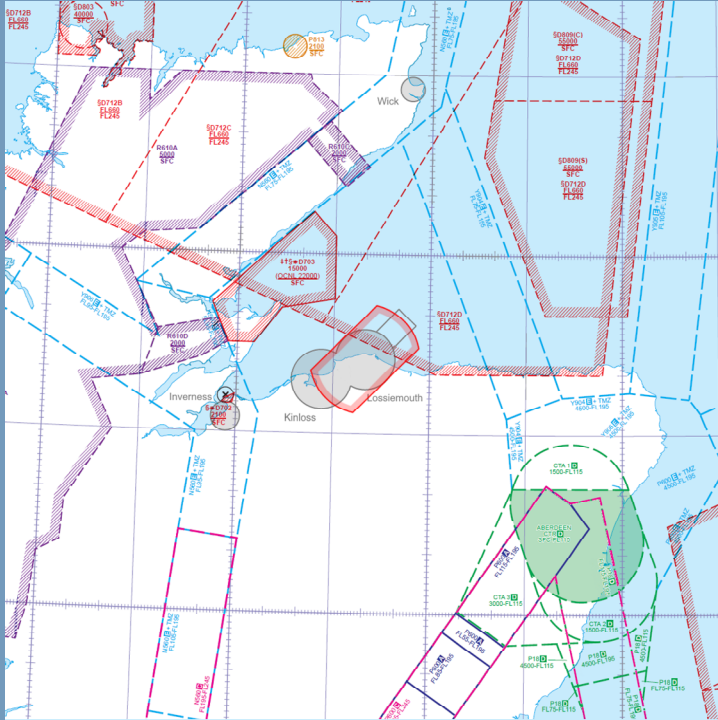
- Background to TDA Requirement:
 - CAP 722 requirements for BVLOS flight without Detect and Avoid capability (DAA)
 - SkyGuardian's DAA
 - CAA approvals



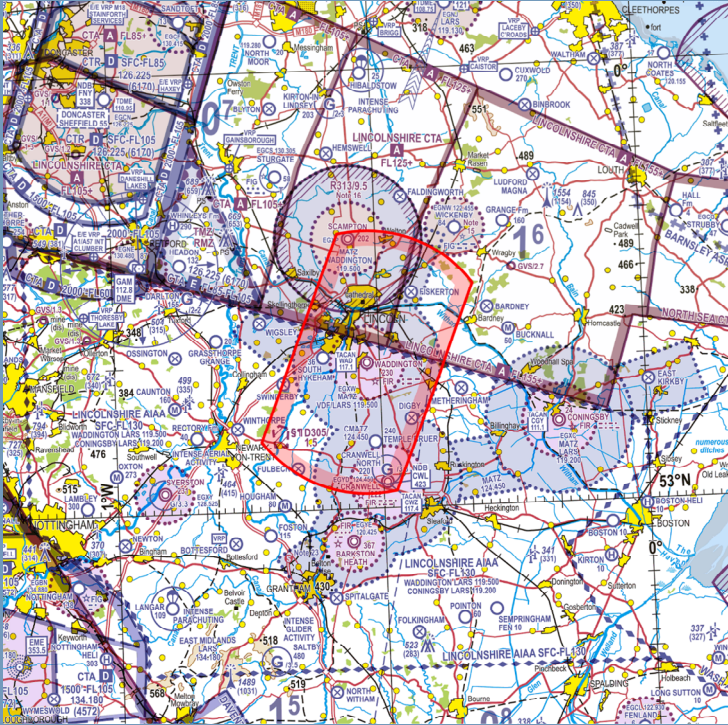
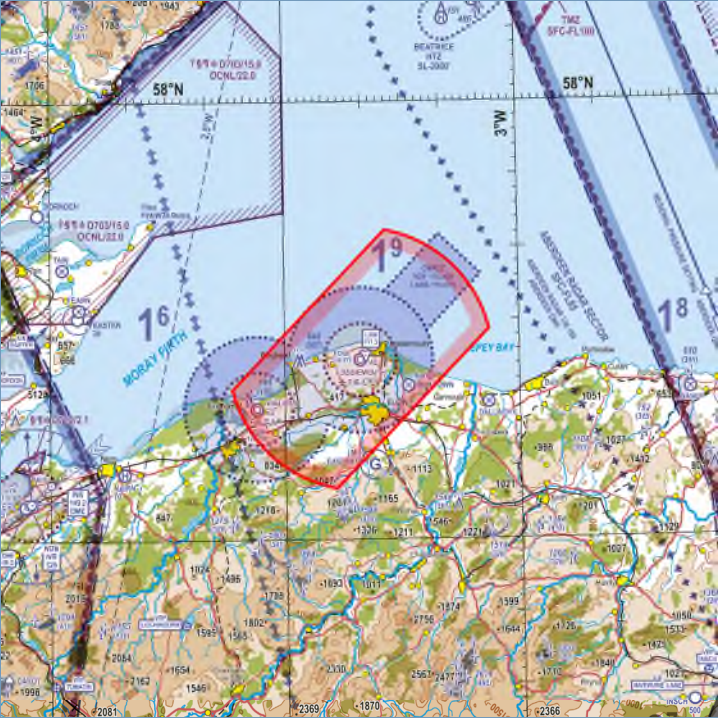
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- TDA Design:
 - Comprises 2 areas to cater for the CAA response to the manufacturer's application
 - Surface – 3000ft
 - 3000ft - FL100
 - Potential to reduce the TDA in size

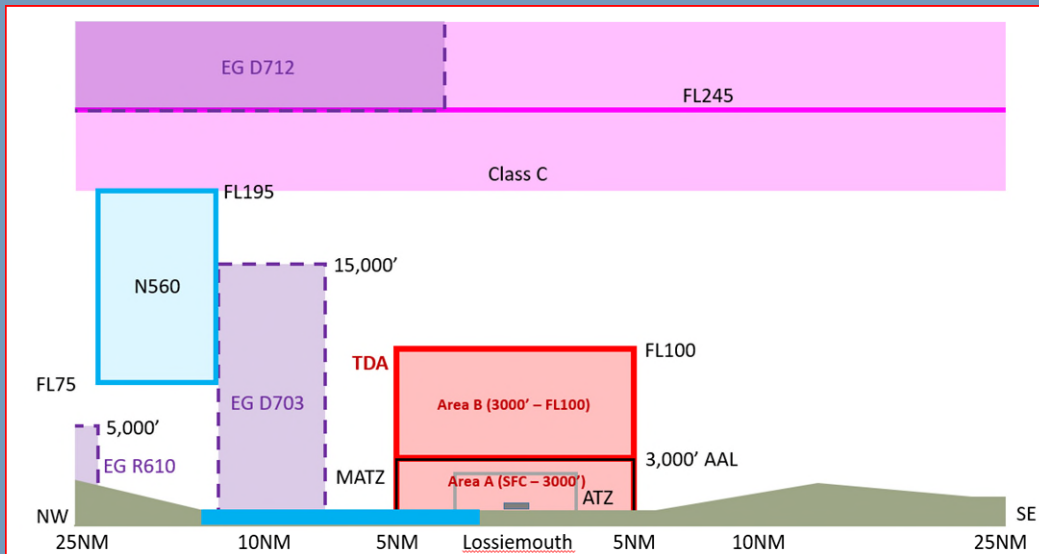
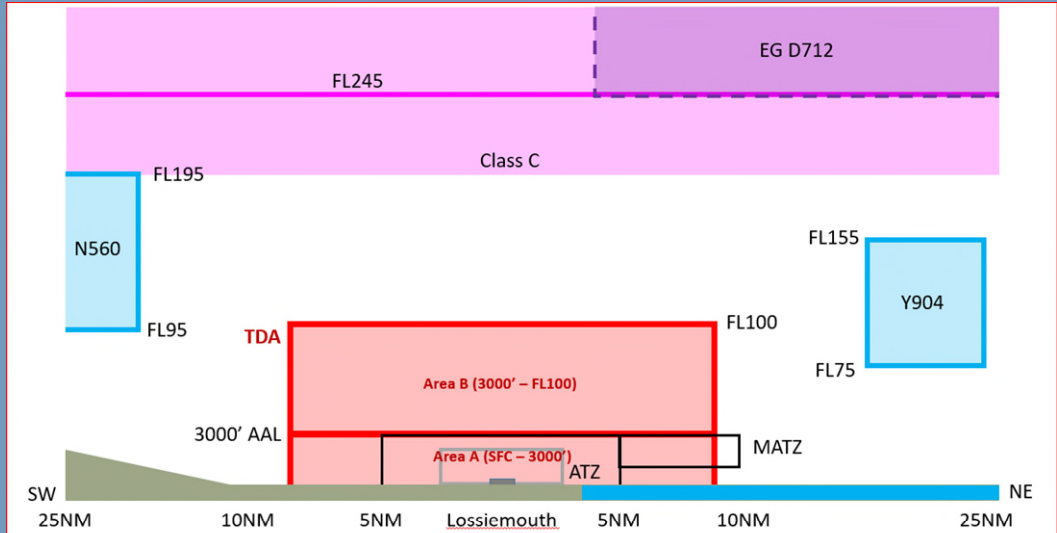
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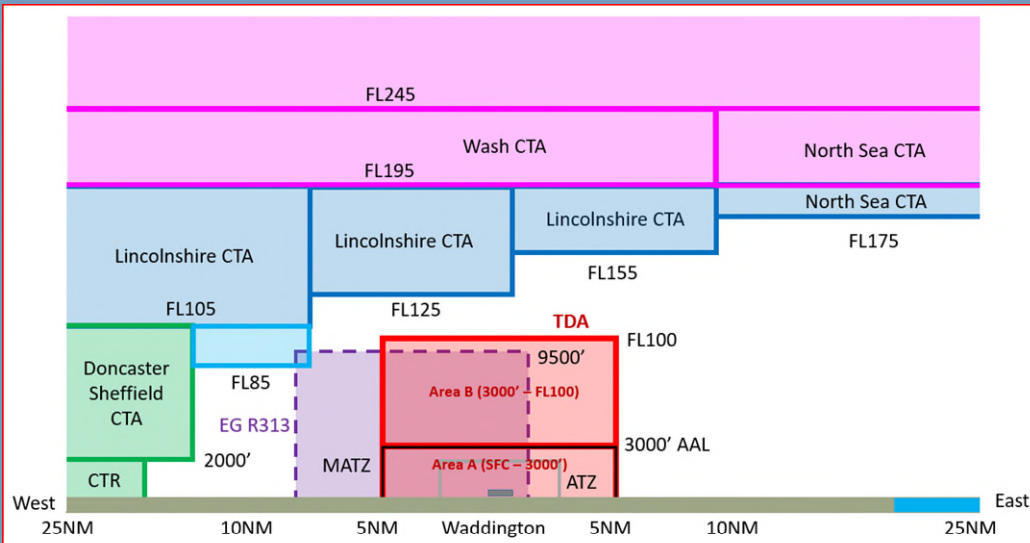
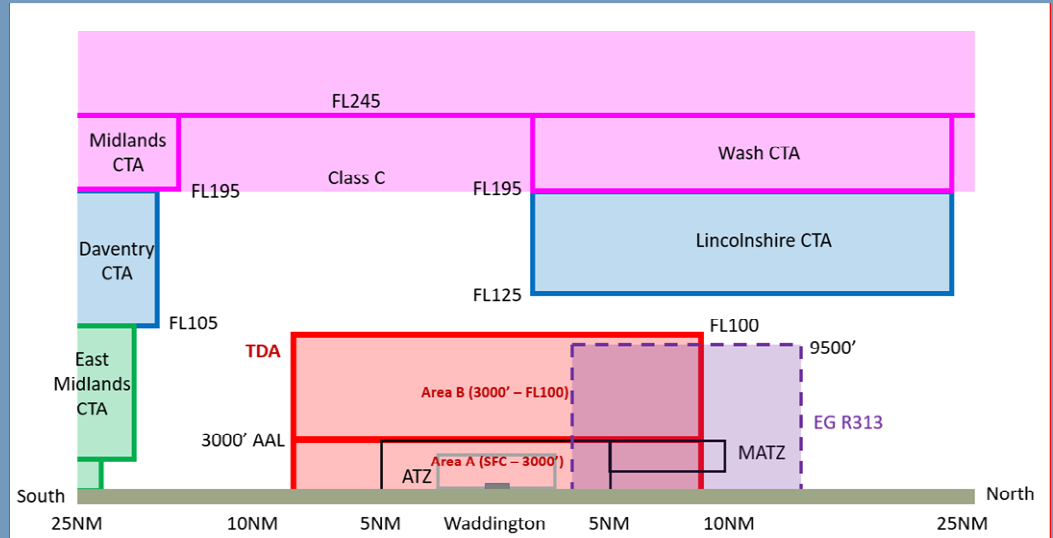


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Lossiemouth

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Waddington

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Agenda:

- Welcome & Introductions
- Workshop Objectives & Output
- Protector v SkyGuardian (different ACPs)
- Recap of the ACP proposal and timelines
- RAF Waddington / Lossiemouth Assumptions
- Draft flying schedule
- Airspace Management
- ATM Procedures
- Other
- AOB

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RAF Waddington Assumptions & Questions

- General Discussion

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Draft flying schedule:

- Arrives UK 1 July 2021
- First flight 5 – 9 July 2021
- 12 – 14 July Prep for RIAT – TBD as CX
- 16 – 18 July fly @ RIAT – TBD as Cx
- 20 - 22 July NATO days (probably ivo EG D323)
- 26 – 27 July MACA demos (as above)
- 2 – 6 Aug RN activity in South West DAs
- 9 – 27 Aug Protector de-risking activity (~3 flights per week)
- 6 – 10 Sep South West DAs (back-up)
- 13 Sep – 8 Oct fly at Lossiemouth in support of military exercise

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Airspace Management:

- Control Authority for each TDA
- Hours of activation
- Method of activation
- Provision of DACS for each TDA
- SkyGuardian holds
- Other airspace restrictions within TDAs

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ATM Procedures:

- SSR codes (civil control, ASACS ident)
- Access to TDA by military users
- Access to TDA by civil airspace users (crossing and operating from within TDA)
 - Review of existing LOAs by all local military aerodromes
 - Identify new LOAs required

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Other:

- Air Defence Priority Flight (ADPF) procedures
- SAR, Air Ambulance, Cat A/B flight procedures
- Use of WAD & LOS as diversion aerodromes (for other aircraft) during TDA activation

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