

17 July 2020

Warton Aerodrome Temporary Airspace Change Proposal ACP-2020-031

Summary of Stakeholder Feedback and Final Proposal

BAES-WFT-RP-FTM-R&D-021 Issue 3

1. Introduction

BAE Systems (BAES) have identified a need for dedicated segregated airspace in the vicinity of Warton Aerodrome to allow Beyond Visual Line of Sight (BVLOS) operations of Unmanned Air Systems (UAS) from the airfield. In order to enable the required operations the establishment of segregated airspace in the form of a Temporary Danger Area (TDA) was seen as the most appropriate solution and hence engagement with the Civil Aviation Authority (CAA) led to this Airspace Change Proposal (ACP).

This memorandum details the methods used and the feedback received during Stage 3 of the CAP1616 process, in addition to discussing the history and final design proposal for the ACP.

2. History of the ACP

BAES (the 'Change Sponsor') submitted a Statement of Need to the CAA (the 'Regulator') which detailed a requirement to support an upcoming UAS flight demonstration with the University of Central Lancashire (UCLan), and Lancashire Fire and Rescue Service (LFRS). This proposed demonstration would see a small fixed wing UAS operate BVLOS from Warton Aerodrome in order to prove capability to LFRS for a potential use case. To support this activity, segregated airspace was identified as critical to success.

An initial Assessment Meeting was held with members from both BAES and the CAA on Friday 22nd May during which they collectively agreed the scope of the proposed temporary airspace change and that the timescales required were appropriate. During the meeting, the two parties also discussed the future steps in the process, including the key Stakeholder Engagement (Stage 3) aspect.

3. Stakeholder Engagement Methodology

The CAP1616 process is designed from the outset to promote transparency between the Change Sponsor, the Regulator, and the public. Stakeholder engagement is arguably one of the most critical aspects of the process.

It was decided that the most appropriate form of engagement given the current Coronavirus restrictions was primarily via email, although additional over-the-phone contact was made with some stakeholders. An engagement letter was distributed to identified stakeholders and uploaded to the airspace change portal on Monday 15th June which detailed the scope, purpose, and proposed design of the TDA (BAES-WFT-RP-FTM-R&D-020). The letter noted the 'engagement period' would last for three working weeks, closing at the close of play on Friday 3rd July. In addition to this formal engagement period, informal consultation was made with a number of stakeholders in the weeks prior to distribution of the letter as part of normal day-to-day operations at Warton Aerodrome.

Throughout the engagement period, several stakeholders got in contact with further questions to clarify certain aspects of the ACP, all of which were responded to within two working days of initial contact. At all points we also encouraged the sharing of the ACP with other interested parties, which led to a couple of stakeholders not on the original distribution providing a valuable response.

A follow-up email was sent to all parties on Friday 26th June to remind them of the July 3rd deadline.

4. TDA Design Proposal

The following TDA design was included in the Engagement Letter:

Identification and Lateral Limits	Upper Limit Lower Limit	Remarks
TDA 1 Area bounded by straight lines joining 0534502N 0025124W – 0534348N 0025042W – 0534202N 0025549W – 0534354N 0025659W	Lower Limit: SFC Upper Limit: 2000ft AMSL	Activity: UAS Beyond Visual Line of Sight (BVLOS) Hours: When notified DAAIS: Warton Radar Frequency: 129.530 Tel: Warton ATC Sponsor: BAE Systems
TDA 2 Area bounded by straight lines joining 0534202N 0025549W – 0534354N 0025659W – 0534122N 0030842W – 0533921N 0030728W	Lower Limit: SFC Upper Limit: 3000ft AMSL	Activity: UAS Beyond Visual Line of Sight (BVLOS) Hours: When notified DAAIS: Warton Radar Frequency: 129.530 Tel: Warton ATC Sponsor: BAE Systems



5. Summary of Feedback

BAES received formal written feedback from seven stakeholders, two informal responses over the phone, and one who contacted us requiring more information. The majority of stakeholders who responded were supportive of the ACP. A summary of responses is visualised below, with all redacted responses detailed at Appendix 1 of this memorandum.

Stakeholder	Type of organisation	Response (Formal)	Response (Informal)	Resultant Design Change?
Attitude Airports	Flight Training Organisation / Airfield		Phone	No
BAE Flying Club	Flight Training Organisation	Email	N/A	No
Black Knights Parachute Centre	Airports Organisation / Airfield Owner			
Blackpool Airport	Airfield	Email	N/A	No
Blackpool Council	Local Council			
Carr Valley Microlight Site	Flight Training Organisation / Airfield			
Dolphin Model Flying Club	Model Flying Club	Email	N/A	No
DPAero Ltd	Airspace User		Emailed with questions.	
Fylde Borough Council	Local Council			
General Aviation Alliance	Independent Alliance	Email	N/A	No
High-G Flight Training	Flight Training Organisation		Phone	No
Lancashire County Council	Local Council			
Lancashire Enterprise Partnership	Local Interest Organisation			
Liverpool Airport	Airfield			
Manchester City Airport	Airfield			
Ministry of Defence	Military	Email*	N/A	No
National Police Air Service	Emergency Service Provider			
NATS Airspace Change	Air Traffic Services Provider			
NATS Manchester Airport	Air Traffic Services Provider	Email	N/A	No
North West Air Ambulance	Emergency Service Provider			

Northern Microlights	Flight Training Organisation / Airfield			
Preston City Council	Local Council			
<i>Private Pilot A</i>	Airspace User	Email	N/A	No
RAF Valley	Military	*	*	*
RAF Woodvale (ATC)	Military	*	*	*
RAF Woodvale (Ops)	Military	*	*	*
Sefton Council	Local Council			
Southport Model Aero Club	Model Flying Club			
West Lancashire Borough Council	Local Council			
West Lancashire Microlight School	Flight Training Organisation / Airfield			
Wyre Council	Local Council			

Key:

Blank boxes indicate no response received.

N/A boxes indicate where formal responses have been received and hence informal responses are not additionally required.

*Ministry of Defence responded on behalf of RAF Valley and RAF Woodvale and as such is a consolidated view.

6. BAE Systems Responses

The following table summarises the responses received and BAES' response:

Stakeholder	Response (Formal)	Response (Informal)	Feedback / Response
Attitude Airports		Phone	Supports the ACP. Recommended that a briefing pack be produced for local airfields and General Aviation (GA) operators. Response: a simple and easy to digest briefing pack will be produced and distributed prior to implementation.
BAE Flying Club	Email	N/A	Supports the ACP. Their response contained a couple of queries regarding operational procedures around crossing services and likely routing. Response: emailed 30/06/20 explaining that crossing procedures are likely to be little different than a MATZ penetration and on departure from Blackpool will be coordinated as per the existing Letter of Agreement. As explained in the engagement letter, a crossing service will be available from Warton Radar.

Blackpool Airport	Email	N/A	<p>Does not support the ACP. Their response disagreed with 2 of 5 questions in the questionnaire noting in particular that the TDA would have a negative effect on the business aspects of Blackpool's operations making the airport a less attractive destination for commercial and general aviation traffic.</p> <p>Response: Blackpool Airport state in their response that the "design of the airspace is inappropriate" yet they have given no indication of what, if any, changes would render our design appropriate. Whilst BAES appreciate the concerns around whether or not any potential TDA will have an impact on the number of movements at Blackpool, we believe that the airspace is suitable for the purpose it has been designed and we envisage very little disruption to operations. It is worth noting at this point that the existing Letter of Agreement between Warton Aerodrome and Blackpool Airport already requires any southbound departures from Blackpool to be pre-noted so that a suitable clearance through the MATZ can be given based on current conflicting Warton traffic – operation with any TDA in place is therefore envisaged to be no different.</p> <p>Further to their comments on the business aspects of their operation, Blackpool Airport note that any use of the TDA should be restricted to outside of Blackpool's published hours of operation (0700 – 2100L). Whilst some activity may take place between the hours of 2100-0700L, we cannot reasonably operate only within those times.</p> <p>BAES believe that the concerns raised by Blackpool Airport can be mitigated procedurally and hence do not require any design changes.</p> <p>Following the initial issue of this letter, further discussions have taken place between BAES and Blackpool Airport. Both parties have come to an agreement to proceed and work with each other to minimize the impact of any potential TDA, which may include the implementation of a 'task specific' Letter of Agreement with Blackpool. This letter and subsequent agreement "may impose certain restrictions on the number of activation periods and total monthly amount of activated time, requiring agreement from both parties to continue". As noted in their response (in full in Appendix 1), "any commercial and business concerns that have</p>
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			<p>been raised” still have to be worked, but as Change Sponsor, BAES are committed to re-engage with Blackpool Airport on this matter in due course.</p> <p>BAES Flight Test and Flight Operations look forward to working with Blackpool Airport to create a solution suitable and acceptable to both parties.</p> <p>For the purposes of the ACP, BAES do not believe a change to the design of the proposed airspace is required, noting that agreement of procedures and operational limitations will be agreed upon prior to implementation.</p>
Dolphin Model Flying Club	Email	N/A	Supports the ACP. No further comments.
DPAero Ltd		Emailed with questions.	<p>DPAero Ltd contacted BAES with a couple of queries in relation to envisaged impact on operational procedures from Blackpool Airport.</p> <p>Response: emailed 29/06/20 clarifying the likely impact to their operation.</p>
General Aviation Alliance (GAA)	Email	N/A	<p>Does not support the ACP. The response from the GAA raised a number of points ranging from inconsistencies in design between different ACP stages and timescales.</p> <p>Response: BAES believe that a number of the comments made in their response spawn from a misunderstanding of the tailored CAP1616 process in place for the establishment of TDAs, including comments surrounding the timescales. It is worth noting that a recent successful TDA application under the new process had a stakeholder engagement period of one working week – substantially shorter than for this ACP. Whilst their concerns are understood and advice will be taken onboard for any potential future ACPs, BAES still believe the engagement period was of sufficient length given the scope of the proposed change.</p> <p>The GAA noted a concern that this ACP “has the potential to act as a ‘backdoor’ to a permanent airspace change”. This is entirely speculative and incorrect. The CAP1616 process itself is in place to stop that very scenario from happening and every single change (whether temporary or permanent) has to abide by the process.</p> <p>Also discussed was concern around the number of aircraft required to route around any potential TDA and the subsequent noise impact on the surrounding areas. BAES</p>

			<p>believe that the number of aircraft required to route around any potential TDA will be minimal and at most (worst case) will have options to either climb above the level of the TDA, or route no more than ~12nm East. Whilst this is not ideal for those inbound to the Blackpool area from the South, BAES do not consider the number of aircraft and/or instances to be significant as they will be avoiding the busiest times for GA (i.e. weekends, bank holidays, evenings) and a Danger Area Crossing Service (DACS) will be in place.</p> <p>To clarify further the provision of DACS, the Warton ATC will be open at all times should the TDA be active.</p> <p>BAES do not believe the comments made require any design change.</p>
High-G Flight Training		Phone	Supports the ACP. No further comments.
Ministry of Defence (MOD)	Email*	N/A	<p>Supports the ACP. Notes the importance of working closely with local MOD sites including RAF Woodvale to ensure smooth operation of the University Air Squadron operations and as such request that any refusals to the University Air Squadron to enter the TDA are recorded. Further, the MOD request any BAES' views of whether GA traffic patterns change after implementation are fed back to them.</p> <p>Response: BAES will provide the MOD with the requested data following implementation.</p>
NATS Manchester Airport	Email	N/A	Supports the ACP. No further comments.
<i>Private Pilot A</i>	Email	N/A	<p>Does not support the ACP. A number of queries were made that suggested misunderstanding of both the ACP process and the current airspace design. Productive comments were made in reference to the potential of establishing a 'transit corridor' for GA through any proposed TDA, and restricting operations to night only.</p> <p>Response: emailed 30/06/20 clarifying the queries raised. Whilst we appreciate the desire for a transit corridor BAES feel that with a crossing service available and the infrequent nature of activation, the introduction of a dedicated corridor would be inappropriate and only complicate the design further and risk infringements.</p> <p>BAES do not believe the comments made require any design change.</p>

7. Feedback and Complaints Monitoring and Assessment

Throughout the period of implementation, any complaints and further feedback received will be reviewed on a regular basis and tracked by the Flight Operations and Flight Test Engineering teams, at all points reviewing our operations against the comments received. Following implementation a summary of feedback and complaints received will be distributed to the regulator and any relevant stakeholders.

The process for complaints and feedback will be communicated out to stakeholders via the planned briefing letter prior to implementation and is likely to be via a dedicated airspace change email address.

8. Conclusion and Resultant Airspace Design Change

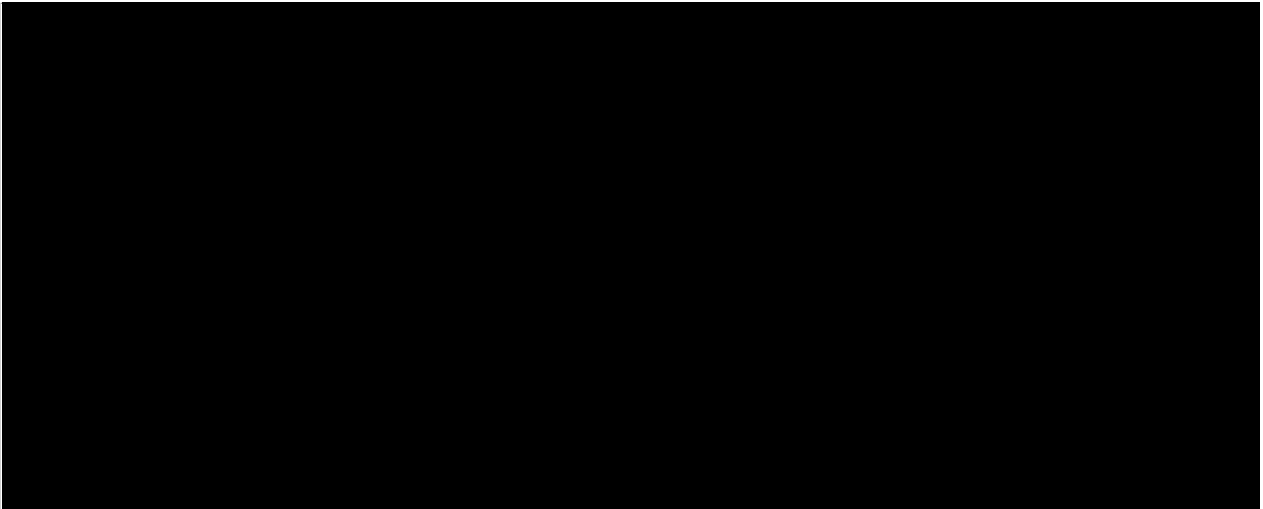
Whilst BAES believe the current design and proposed measures mitigate the vast majority of the concerns raised by our stakeholders, we also appreciate that access to the airspace in the local area is a concern, and so we have decided to modify the construct of our design. The new proposed airspace design (seen in Appendix 2 and graphically below) introduces a split within TDA 2 allowing more flexible access to the airspace when the entire area is not required for operations. Introducing this second split in our airspace design allows BAES and our stakeholders greater flexibility, in line with the principle of Flexible Use Airspace.



Although the majority of local airspace users have responded agreeably with the proposed change, it is important for us to consider the issues from those that have expressed concern over the proposal as a responsible Change Sponsor. It is also important for all parties to recognise that although the formal engagement period is over we will still endeavor to work closely with our stakeholders throughout the process.

With this proposed TDA, we look forward to being able to enable operations of novel air systems in support of our local industry, academia and public service partners. Use of the TDA will permit research and development activities into new ways of managing unmanned aircraft with the use of electronic conspicuity devices and other technologies, furthering the development and strength of British UAS expertise.

The final proposed airspace change design is detailed at Appendix 2 of this memorandum.



Appendix 1: Questionnaire Responses

a) BAE Flying Club

Appendix 1: Airspace Change Proposal Questionnaire

Warton Aerodrome Temporary Airspace Change Proposal
ACP-2020-031

Representative Organisation:

BAE (Warton) Flying Club

GBR.DTO.0051

1. The design of airspace is appropriate due to the need described and in order to provide a safe environment for airspace users. (See: Appendix 2)		
Your response:	Agree	Disagree
Other comment: None		
2. The design must allow access to sufficient area to accommodate the wide range of anticipated different types of air vehicle requiring to use it for the range of T&E purposes, but could be subdivided.		
Your response:	Agree	Disagree
Other comment: None		
3. The design must minimize the impact to other airspace users by activation only when required based on need.		
Your response:	Agree	Disagree
Other comment: It is assumed that activation will be notified to EGNH so that south bound traffic normally pre-arranging MATZ penetration can make alternative arrangements should they wish to?		

4. The airspace should be as accessible as possible to other users and be managed in accordance with Flexible Use of Airspace (FUA) principles as far as is practicable (Efficiency and Airspace Sharing).		
Your response:	Agree	Disagree
Other comment: None		
5. The design should be in accordance with current airspace regulation and use a pre-existing designation of airspace with established parameters (Conformity, Simplicity and Safety).		
Your response	Agree	Disagree
Other comment: None		
6. Please let us know if there are any day time or night time constraints that you consider could take into account when making this application.		
Your response: None		

7. Please provide any details of any issues or constraints due to local General Aviation Operations that you believe may have an impact on the airspace design.
<p>Your response: It is assumed that Warton Radar (LARS) 129.530 will advise any GA wishing to penetrate the MATZ that the TDA is active and give specific MATZ penetration heights/routes or advise to circumnavigate the TDA/MATZ.</p>
8. Please provide details of any constraints the introduction of this design may have on gliding, microlight flying, hang gliding, paragliding or model flying.
<p>Your response: None</p>
9. Are there any local development projects, or existing particularly noise sensitive areas, that we should be aware of?
<p>Your response: None that we are aware of</p>

10. Please advise us of any other issues or constraints you feel we could consider when designing its new airspace.
<p>Your response please provide details: The TDA is contained within the MATZ horizontally but not vertically, so we were wondering what the protocol and restrictions would be should a pier or pier MATZ penetration be requested when the TDA is active?</p>

Thank you for your cooperation in completing this questionnaire. Your comments will provide a valuable input to aid development of the ACP.

All completed forms have to be kept to evidence the engagement with stakeholders and interested parties but this information remains confidential.

b) Blackpool Airport

Appendix 1: Airspace Change Proposal Questionnaire**Warton Aerodrome Temporary Airspace Change Proposal
ACP-2020-031****Representative Organisation: Blackpool Airport Operations Ltd****(Please insert details of the Organisation you are replying on behalf of)**

1. The design of airspace is appropriate due to the need described and in order to provide a safe environment for airspace users. (See: Appendix 2)		
Your response:	Agree	Disagree
<p>Other comment: The design of the airspace is inappropriate. Although it lies mostly within the Warton MATZ, it also occupies a piece of airspace underneath the approach stub into Warton that previously was outside of the MATZ. It lies within Class G airspace, affecting traffic that previously would consider Blackpool as a destination for FBO use, training sorties or GA flights. Its position is extremely close to Blackpool's existing instrument approach and holding patterns and has a direct effect on Blackpool's standard IFR departure routes to join airways at Pole Hill. Standard routes inbound and outbound to some of our Offshore helicopter rig destinations will be affected. its position will prevent the run-up-the coast general aviation flyers transiting from Liverpool etc up to the Lake District. There will also be an operating consideration for our based NPAS and HME operators.</p>		
2. The design must allow access to sufficient area to accommodate the wide range of anticipated different types of air vehicle requiring to use it for the range of T&E purposes, but could be sub-divided.		
Your response:	Agree	Disagree
<p>Other comment: It appears that your operational requirement regarding T&E purposes is at odds to Blackpool's operational requirement. Any airspace restrictions imposed so close to Blackpool Airport will make it less attractive to its core market due to the potential of a refusal to cross the airspace or a re-route.</p>		

3. The design must minimize the impact to other airspace users by activation only when required based on need.		
Your response:	Agree	Disagree
<p>Other comment: Absolutely agree. Especially if this activation took place outside of Blackpool's existing notified hours of operation. Even then, our occasional Out of Hours FBO operations, HME and NPAS would all be affected.</p>		
4. The airspace should be as accessible as possible to other users and be managed in accordance with Flexible Use of Airspace (FUA) principles as far as is practicable (Efficiency and Airspace Sharing).		
Your response:	Agree	Disagree
<p>Other comment: I agree. Even so, any imposition of a TDA in that position within the notified hours of Blackpool's operation will have a negative effect on Blackpool's business. Blackpool needs to retain its existing level of access to the surrounding airspace to permit it to carry out its existing arrival and departure procedures unhindered. Establishment of a TDA will actively discourage general aviation, flight training and FBO traffic from visiting Blackpool. There will also be a negative effect on the ability of the based offshore helicopter operators to conduct some of its movements.</p>		
5. The design should be in accordance with current airspace regulation and use a pre-existing designation of airspace with established parameters (Conformity, Simplicity and Safety).		
Your response	Agree	Disagree
<p>Other comment: I agree. But Warton must acknowledge that the requested airspace does not lie wholly within the Warton MATZ and is therefore outside of pre-existing parameters. Indeed, establishment of a MATZ does not prevent other airspace users from entering or crossing such a MATZ. I therefore reiterate that any activation of such a TDA should take place outside of Blackpool Airport's established and notified operating hours.</p>		

6. Please let us know if there are any day time or night time constraints that you consider could take into account when making this application.
<p>Your response Utilisation of such a TDA should only take place outside of Blackpool's established and notified operating hours.</p>
7. Please provide any details of any issues or constraints due to local General Aviation Operations that you believe may have an impact on the airspace design.
<p>Your response Blackpool Airport is a busy and well established General Aviation airport with a based offshore helicopter operator, HME, numerous flight training schools and an FBO, generating just under 40000 movements a year. Any TDA imposed would lie extremely close to our instrument approaches, holds and departure routes. Any IFR departures via POL would have to accept a reroute or delay, making Blackpool a less attractive destination for some of our core traffic. The TDA would block any VFR routing aircraft from the south, resulting in reduced movements and therefore affecting yet another income stream. HME and NPAS would be adversely affected as their reaction times to southerly routes will be increased.</p> <p>Another factor is that the Blackpool coastline is a highly attractive waypoint for GA transit aircraft as they route to and from the lakes or just go to take a look at the tower. I anticipate a high level of TDA transgressions from various sectors of the flying community who may not be in communication with Blackpool or Warton.</p>
8. Please provide details of any constraints the introduction of this design may have on gliding, microlight flying, hang gliding, paragliding or model flying.

<p>Your response</p> <p>No comment as we do not operate such types of aircraft apart from the occasional microlight, who conform with our standard operating procedures for light aircraft.</p>
9. Are there any local development projects, or existing particularly noise sensitive areas, that we should be aware of?
<p>Your response</p> <p>None known.</p>
10. Please advise us of any other issues or constraints you feel we could consider when designing its new airspace.
<p>Your response please provide details</p> <p>Allow more time to permit sufficient stakeholder engagement time as per the spirit of the CAP1616 proper.</p> <p>I would have expected more direct engagement in good time with Blackpool as a close neighbour and sharer of local airspace.</p> <p>When designing such a TDA, be factual in your engagement letter: the proposed TDA does not lie wholly within the Warton MATZ. It drops beneath the approach stub, removing another option for inbound rotary and other VFR traffic from the south west.</p> <p>Any options provided to Blackpool Airport regarding traffic rerouting and specifics of how the TDA would operate should have been held in a formal manner with representatives from both parties. Proper consideration could then have been given to each sides viewpoint. It would be imprudent of me to agree with the proposal until such a meeting (skype) has taken place.</p>

From: [REDACTED]
 Sent: 16 July 2020 15:20
 To: [REDACTED]
 Subject: [REDACTED]

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Good afternoon [REDACTED]

Blackpool Airport accepts BAE Systems' commitment to work with Blackpool Airport and its stakeholders to minimise the operational impact of the TDA. Where possible we hope that this will be achieved through the existing Letter of Agreement but we accept BAE Systems offer of an interim 'task specific' Letter of Agreement to cover the period of operations should it be required. Such an LoA may impose certain restrictions on the number of activation periods and total monthly amount of activated time, requiring agreement from both parties to continue to recognise any such LoA if there are major changes in such timings.

This is on the understanding that BAE Systems commits to engage directly with the previously discussed operators prior to any activation of the TDA to ensure procedures are agreed. This does not however alleviate any commercial and business concerns that have been raised which have yet to be addressed, although we accept the offer of BAE Systems to engage with Blackpool Airport over said concerns.

Best regards

[REDACTED]
 Manager ATS
 Blackpool Airport



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c) Dolphin Model Flying Club

Appendix 1: Airspace Change Proposal Questionnaire

**Warton Aerodrome Temporary Airspace Change Proposal
ACP-2020-031**

Representative Organisation: DOLPHIN MODEL FLYING CLUB

(Please insert details of the Organisation you are replying on behalf of)

1. The design of airspace is appropriate due to the need described and in order to provide a safe environment for airspace users. (See: Appendix 2)		
Your response:	Agree YES	Disagree
Other comment:		
2. The design must allow access to sufficient area to accommodate the wide range of anticipated different types of air vehicle requiring to use it for the range of T&E purposes, but could be sub-divided.		
Your response:	Agree YES	Disagree
Other comment:		
3. The design must minimize the impact to other airspace users by activation only when required based on need.		
Your response:	Agree YES	Disagree
Other comment:		

4. The airspace should be as accessible as possible to other users and be managed in accordance with Flexible Use of Airspace (FUA) principles as far as is practicable (Efficiency and Airspace Sharing).		
Your response:	Agree YES	Disagree
Other comment:		
5. The design should be in accordance with current airspace regulation and use a pre-existing designation of airspace with established parameters (Conformity, Simplicity and Safety).		
Your response	Agree YES	Disagree
Other comment:		
6. Please let us know if there are any day time or night time constraints that you consider could take into account when making this application.		
Your response NO CONSTRAINTS AS FAR AS OUR ORGANISATION IS CONCERNED		

7. Please provide any details of any issues or constraints due to local General Aviation Operations that you believe may have an impact on the airspace design.
Your response NO RESPONSE
8. Please provide details of any constraints the introduction of this design may have on gliding, microlight flying, hang gliding, paragliding or model flying.
Your response THE PROPOSED AIRSPACE DESIGN AS DESCRIBED IN APPENDIX 2 WILL NOT HAVE ANY IMPACT ON THE ACTIVITIES OF THE MEMBERS OF THE DOLPHIN MODEL FLYING CLUB.
9. Are there any local development projects, or existing particularly noise sensitive areas, that we should be aware of?
Your response NOT AWARE OF ANY.

10. Please advise us of any other issues or constraints you feel we could consider when designing its new airspace.
Your response please provide details NO RESPONSE

Thank you for your cooperation in completing this questionnaire. Your comments will provide a valuable input to aid development of the ACP.

All completed forms have to be kept to evidence the engagement with stakeholders and interested parties but this information remains confidential.

d) General Aviation Alliance

From: [REDACTED]
 Sent: [REDACTED]
 To: [REDACTED]
 Subject: RE: ACP-2020-031
 Categories: Airspace & FLOPS

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Dear [REDACTED]

Thank you for your rapid response.

Due to the vagaries of email please confirm receipt of this email and that it will be fully considered as a valid and on time response to the ACP?

From the information available to it and the very limited time within which to consider it the GAA has no option but to object to the current proposal for the airspace change for the following reasons, the reasons are in no particular order:

1. The three week period in which to consider the proposal is grossly insufficient. The CAA should not have permitted this.
2. We note that the Statement of Need is dated 09Apr2020 indicating that this proposal has been in consideration for some time prior to this date. Therefore there were plenty of opportunities to have created a longer consultation period.
3. Although this may have been due to an action or inaction by the CAA the consultee list appears to have been lacking key players, particularly in the GA world.
4. The following is a quote from www.nationaltrail.co.uk
 "Ribble Estuary National Nature Reserve (NNR) is the most important site in the UK for wintering wildfowl. The Reserve occupies over half of the Ribble estuary, including extensive areas of mud and sand flats and is one of the largest saltmarsh habitats in England. It supports over 250,000 ducks, geese, swans and wading birds and is internationally important for 16 species of wintering birds. During the summer, numerous birds nest on the saltmarsh including three types of gull, common tern and redshank, skylark, meadow pipit and linnet. The NNR occupies land on both sides of the Estuary."
 With operations being proposed from SFC upwards shouldn't the consultees have included appropriate wildlife organisations?
5. As witnessed by the clarification and questions the GAA had to ask the quality of the consultation document was insufficient to enable a reasoned opinion to be reached through a lack of detail, including sub-standard charting of the proposal, and the major textual error over the change being entirely within the MATZ
6. The volume description error is also present in the Statement of Need, "The proposed TDA is to consist of two 'boxes' to the south of the EGNO 25/07 centreline. The area encompasses the SW quadrant of the existing MATZ with a small (1nm) extension East of the airfield to allow launch and recovery operations."

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7. Due to statements such as "after which an extension may be sought," the GAA is concerned that this expedited ACP has the potential to act as a "backdoor" to a permanent airspace change without the need for a full CAP1616 exercise.
8. If this is only a TDA then why is an AIP entry proposed as this would only be necessary for changes that will last more than 90 days?
9. Having an AIP entry means that it will automatically be charted on any new charts whose deadline coincides with the AIP entry being there. Is this appropriate?
10. The TDA will form a block to those aircraft that currently navigate along the coast under the MATZ, resulting in a long detour for those that cannot gain access for whatever reason(s). We cannot see any safety assessment for those aircraft that may be forced inland, over the Preston conurbation, towards other aviation activities, and/or towards rising ground.
11. The GAA is not convinced that the noise assessment has been as robust as it should be as whilst the drones will be within the footprint of a MATZ used to fast jet operations the type of noise will be different and from SFC upwards. Additionally what consideration has there been of the noise from other aviation displaced through having to reroute?
12. Are Warton's radar and radio coverage sufficient to enable what could be a low altitude DACS?
13. Particularly with Warton's currently limited hours of operation it is unclear as to whether a DACS will always be available when the TDA is active. It should be mandated that it is.
14. Particularly with Warton's currently limited hours of operation it is unclear as to how a DAAIS will operate. As mitigation it should be mandated that the shortest period between a NOTAM being issued and the activity will be 48 hours
15. There is nothing in the stakeholder engagement about how effects upon Southport/Birkdale Sands will be mitigated

Regards

General Aviation Alliance

Subject: RE: ACP-2020-031

First off, apologies for not including your organisation on the distribution list for this ACP. Unfortunately none of the team working on this proposal were aware of the GAA, so we appreciate you getting in touch to explain who and what the GAA is. We will bare this in mind for any potential future ACP stakeholder engagements. For information, the team working on the proposal includes GA (myself included), commercial and model pilots so having visibility of the organisation is highly appreciated.

2

Our stakeholder list was run past the Airspace Change team at the CAA ahead of time so we will make them aware that for any future ACPs, in relation to UAS operations specifically, that you'd like to be included in the stakeholder engagement process.

Thank you for the initial questions. See below responses:

1. The ACP talks about a Temporary Danger Area and is using the abbreviated CAP1616 process, yet there is no indication of the start and end dates for the proposed danger area?
The current plan is to have the TDA published in the August issue of the AIP (forecast 27th August). TDAs are then valid for a maximum of 90 days (up to 25th November), after which an extension may be sought.
2. The description says, "The airspace design comprises two boxes, both individually activated, entirely within the South West quadrant of the extant Warton Military Air Traffic Zone (MATZ)."
In the diagram and textual definition it is shown as including airspace below the MATZ, which is correct? Apologies, this is a regrettable typo in Appendix 2 of the letter and it should have read as "...entirely within the footprint of the South West quadrant..." as it explains in the 'Technical Constraints and Opportunities' section of the main letter. The table on Appendix 2 is therefore correct and should be taken as the current design.
3. Even if the GAA had received the stakeholder engagement letter complete with all the necessary information when it was originally distributed the less than 3 weeks to respond within would have been insufficient.
We apologise that this may be the case, however the timescales involved are in line with CAP1616 and having discussed this with the Regulator noting that early engagement was made with some key local stakeholders ahead of time, we believe that in order to meet the timescales and considering the scope of the proposed TDA, three working weeks was an appropriate amount of time to receive responses.
4. In order to be able to meaningfully respond to drone ACPs the GAA has developed a standard set of required data. Please supply answers to the following:
 - a. What type(s) of drones will be used?
Nominally, up to 150kg MTOW fixed wing Unmanned Air Systems. The initial use case is for a smaller and lighter (sub-20kg SUAS) air vehicle.
Note: whilst BAE Systems (Operations) Ltd is the Change Sponsor and owner of the ACP, UAS will also be operated by third parties under their own safety case, permissions and exemptions.
 - b. What size(s) of drone will be used?
Without discussing technical details of potential air systems, initial vehicles will have a wing-spans of less than 10m.
 - c. What will be the maximum all up weight(s) for the drone(s) to be used?
As above, a nominal maximum MTOW of 150kg as stated in the letter, although initial users will be smaller (sub-20kg).
 - d. Which drones will carry what electronic conspicuity devices?
It is expected that any air vehicles will have ADS-B out capability. All UAS that operate BVLOS will be fitted with ADS-B out capability and checked serviceable prior to launch.
 - e. Will the lack of a functioning electronic conspicuity device obligate the cancellation of a flight?
Yes. Function will be checked prior to launch. If the functionality fails mid-flight the flight will be aborted and returned to base.
 - f. What will be the flight durations?
Nominally up to 3 hours. Subject to the operators.
 - g. Please give example flight profiles in time and space
Nominally up to 3 hours within the TDA. Subject to the operators.
 - h. How many flights per day mid-week?
As the length and profile of flights may change depending on the requirements of the operation this could vary and hence we don't want to restrict ourselves at this point to a set number of flights.
 - i. How many flights per day weekends and bank holidays?
There are no current plans to fly at weekends and bank holidays, noting that part of this airspace requirement is in conjunction with blue light services so all options may be explored if required.
 - j. Will the flights be in VMC and IMC, or just VMC?
VMC only.
 - k. Will there be day and night flights, or just day flights?

Likely day only with an option for night flying also available if required as above.

- l. Will there be flights simultaneously airborne?
Initial operations will be single UAS only, with any potential simultaneous operations subject to the operator's safety case and concept of operations.
- m. Please provide diagrams, including a 1:500,000 CAA VFR chart fragment, showing:
the projected operating area(s),
the buffers used,
the resultant proposed airspace volume(s),
the rules for each of the airspace volumes
As we are currently in a home-working situation we don't have access to our mission planning tools where I would be able to create an overlaid diagram on chart. Appendix 2 of the letter describes the design of the proposed TDA.
- n. Please show how the projected airspace volume(s) can be subdivided horizontally for activations?
As shown in Appendix 2 the proposed design comprises two bespoke TDA blocks which can be activated by NOTAM as required for the particular flight.
- o. Please show how the projected airspace volume(s) can be subdivided vertically for activations?
Whilst there is no core plan to subdivide the TDA blocks further vertically, we believe this is the best solution to meet the operational needs of the planned UAS flights.
- p. What activity time windows are projected for the NOTAMs?
Where possible the activation times of the NOTAMs will be kept to a minimum and will be activated as required on a flight-by-flight basis. Note response to (r).
- q. Typically how far in advance of activity will a NOTAM be issued?
It is our expectation that we will issue activation times a week in advance of planned activities allowing us to cancel in shorter time if required.
- r. What will the minimum time between a NOTAM being issued and the activity taking place?
48 hours.
- s. What real time other traffic monitoring will be available to each drone operator, e.g. visual, radar, Flarm display, Flightradar24 display, ATC liaison, etc?
The trials UAS operator will have a Pilot Aware (ADS-B) screen, ATC service from EGNO and a proprietary system available to them at all times within the TDA.
- t. How will other aviators be able to obtain real time actual activity details?
Warton ATC will provide a DAAIS and DACS to airspace users, with an appropriate contact number listed on the NOTAM for information.
- u. How will other aviators be able to obtain projected activity details?
Warton ATC will provide a DAAIS to airspace users, with an appropriate contact number listed on the NOTAM for information.
- v. Please list the aviation bodies that have been included in the consultation
Following internal discussions and with the Regulator, the following list of stakeholders was engaged:

Blackpool Airport
RAF Woodvale (Operations)
RAF Woodvale (ATC)
RAF Valley
Liverpool ATS
NATS Manchester
NATS Enroute
Ministry of Defence
Attitude Airports (Rossall Field)
West Lancashire Microlight School (Ince)
Carr Valley Microlight Site
Northern Microlights (St Michaels)
Black Knights Parachute Centre (Cockerham)
Manchester City Airport
North West Air Ambulance
National Police Air Service

Lancashire County Council
 Fylde Borough Council
 Blackpool Council
 Sefton Council
 Preston City Council
 West Lancashire Borough Council
 Wyre Council
 Lancashire Enterprise Partnership
 Dolphin Model Flying Club
 Southport Model Aero Club

w. Please give details of any noise consultation being carried out

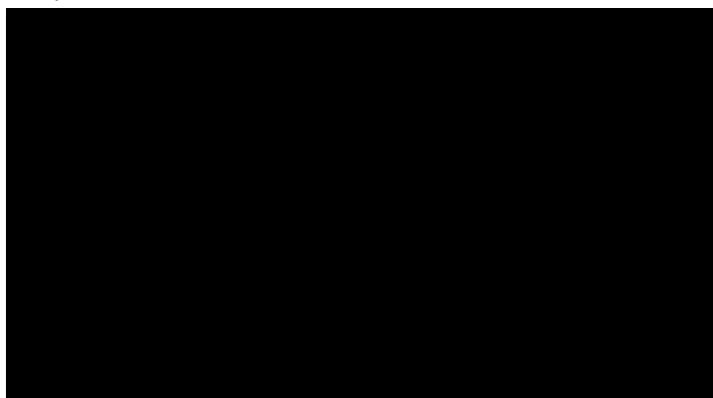
There is no plan to conduct a dedicated noise consultation as the proposed operations are limited to unpopulated areas or those in direct proximity to the airfield. The air vehicles themselves have a low noise footprint due to the nature of their size and propulsion systems. Note: Warton Aerodrome normal operations include fast-jet aircraft and as such jet noise is a normal occurrence within the proposed area.

5. Once we have been provided with all the requested information how long is it proposed to allow us to respond?

As mentioned above, in order to meet the timescales we wouldn't be able to extend the formal deadline past the 3rd July. To meet the August 27th publish date we must submit all information to the Regulator by 18th July at the latest and so whilst we cannot guarantee feedback received past 3rd July will be included, we will attempt to do so if it's received before the final submission date.

I hope this answers your questions satisfactorily. If you have any further comments please don't hesitate to get back in touch.

Thank you.



Subject: ACP-2020-031

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Dear [REDACTED]

Due to the vagaries of e-mail, unless you are able to respond immediately to the points raised, please acknowledge receipt of this e-mail with an indication of when the full answer can be expected.

We note that BAE has commenced a CAP1616 airspace consultation, CAA reference ACP-2020-031. We believe that for mutual benefit and to meet the requirements of CAP1616 the General Aviation Alliance (GAA) should have been included in the consultation process and do not appear to have been so. Please confirm that from here on the GAA will be included as a consultee using the prog.man@gaalliance.org.uk address?

Please forgive any repetition of details that you already know. The GAA (www.gaalliance.org.uk) is an independent group and partnership of organisations representing, as far as possible, UK General Aviation (GA), and Sports and Recreational Aviation interests (S&RA). Its objective is to promote and protect the cost-effective use of GA and S&RA aircraft, and their owners, pilots and the associated operations, and to actively participate in the formulation of regulations and actions that may affect their interests so as to ensure the welfare and the free and safe movement of these aircraft, pilots, owners and the associated operations. By using the GAA as a consultee you can be sure that an appropriate person within all of the following organisations will be kept informed of the progress of your ACP and thereby reach the vast majority of UK GA operations:
 BBAC - British Balloon and Airship Club
 BGA - British Gliding Association
 BHPA - British Hang Gliding and Para Gliding Association
 BMAA - British Microlight Aircraft Association
 BMFA - British Model Flying Association
 BPA - British Parachute Association
 HCGB - Helicopter Club of Great Britain
 LAA - Light Aircraft Association
 PPL/IR Europe - European Association of Instrument Rated Private Pilots
 RAC - Royal Aero Club of the United Kingdom
 The individual organisations may choose to also submit their own responses directly to you.

It is regrettable that the GAA was apparently not asked for its input prior to finding the stakeholder engagement letter by chance.

As required by CAP1616 we trust that local GA stakeholders, including air sports, will also be identified and consulted to likewise assist you in developing BAE's ACP proposal.

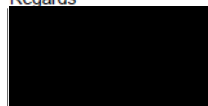
This email is not to be taken as our response to the proposal because as it stands we do not have sufficient information upon which to make a meaningful and reasoned response.

We do offer the following observations upon the stakeholder engagement letter:

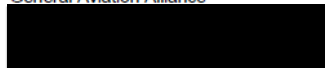
1. The ACP talks about a Temporary Danger Area and is using the abbreviated CAP1616 process, yet there is no indication of the start and end dates for the proposed danger area?
2. The description says, "The airspace design comprises two boxes, both individually activated, entirely within the South West quadrant of the extant Warton Military Air Traffic Zone (MATZ)."
In the diagram and textual definition it is shown as including airspace below the MATZ, which is correct?
3. Even if the GAA had received the stakeholder engagement letter complete with all the necessary information when it was originally distributed the less than 3 weeks to respond within would have been insufficient.

4. In order to be able to meaningfully respond to drone ACPs the GAA has developed a standard set of required data. Please supply answers to the following:
- What type(s) of drones will be used?
 - What size(s) of drone will be used?
 - What will be the maximum all up weight(s) for the drone(s) to be used?
 - Which drones will carry what electronic conspicuity devices?
 - Will the lack of a functioning electronic conspicuity device obligate the cancellation of a flight?
 - What will be the flight durations?
 - Please give example flight profiles in time and space
 - How many flights per day mid-week?
 - How many flights per day weekends and bank holidays?
 - Will the flights be in VMC and IMC, or just VMC?
 - Will there be day and night flights, or just day flights?
 - Will there be flights simultaneously airborne?
 - Please provide diagrams, including a 1:500,000 CAA VFR chart fragment, showing:
 - the projected operating area(s),
 - the buffers used,
 - the resultant proposed airspace volume(s),
 - the rules for each of the airspace volumes
 - Please show how the projected airspace volume(s) can be subdivided horizontally for activations?
 - Please show how the projected airspace volume(s) can be subdivided vertically for activations?
 - What activity time windows are projected for the NOTAMs?
 - Typically how far in advance of activity will a NOTAM be issued?
 - What will the minimum time between a NOTAM being issued and the activity taking place?
 - What real time other traffic monitoring will be available to each drone operator, e.g. visual, radar, Flarm display, Flightradar24 display, ATC liaison, etc.?
 - How will other aviators be able to obtain real time actual activity details?
 - How will other aviators be able to obtain projected activity details?
 - Please list the aviation bodies that have been included in the consultation
 - Please give details of any noise consultation being carried out
5. Once we have been provided with all the requested information how long is it proposed to allow us to respond?

Regards



General Aviation Alliance



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e) Ministry of Defence

From: [REDACTED]
 Sent: [REDACTED]
 To: [REDACTED]
 Subject: 20200703-MOD response to ACP 2020-031-O

Categories: Airspace & FLOPS

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Please accept this as the consolidated MOD response for the Warton Aerodrome Temporary Airspace Change Proposal ACP-2020-031.

The MOD are very much aware of the challenges of flying BVLOS UAS operations in UK airspace and are looking to support ways of safe integration of manned and unmanned aircraft where ever possible. The challenges of providing FUA in the lower airspace environment are real therefore the ability to provide access to airspace within a TDA when it is notified active but not in use is of huge importance. As you have established ATC to provide a DACS, the MOD do not object to your proposal, but we would request that you work closely with the team at RAF Woodvale to ensure timings for activation and the ability for the University Air Squadrons to access the airspace when it is notified active but not in use is understood by all parties.

If you have any questions please do not hesitate to contact me. For your ease, please see below the completed table from your engagement letter.

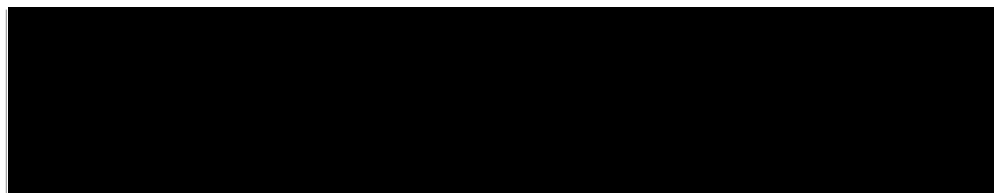
Representative Organisation: Ministry of Defence: Defence Airspace and Air Traffic Management

1. The design of airspace is appropriate due to the need described and in order to provide a safe environment for airspace users. (See: Appendix 2)		
Your response:	Agree	
2. The design must allow access to sufficient area to accommodate the wide range of anticipated different types of air vehicle requiring to use it for the range of T&E purposes, but could be sub-divided.		

Your response:	Agree	
3. The design must minimize the impact to other airspace users by activation only when required based on need.		
Your response:	Agree	
The ability to provide a DACS is paramount to allow access to airspace		
4. The airspace should be as accessible as possible to other users and be managed in accordance with Flexible Use of Airspace (FUA) principles as far as is practicable (Efficiency and Airspace Sharing).		
Your response:	Agree	
Activation of airspace, as well as access to MOD operators when safe to do so is essential. MOD would like to ensure that safe and equitable access to airspace for both UAS squadrons from RAF Woodvale is maintained throughout. The MOD would request that any refusals for access to the TDA is recorded.		
5. The design should be in accordance with current airspace regulation and use a pre-existing designation of airspace with established parameters (Conformity, Simplicity and Safety).		
Your response	Agree	
No further comment		
6. Please let us know if there are any day time or night time constraints that you consider could take into account when making this application.		
No comment		
7. Please provide any details of any issues or constraints due to local General Aviation Operations that you believe may have an impact on the airspace design.		

When the TDA is expired, the MOD would be interested to understand if you believe that there is a change in the location of GA traffic – this is sometimes called the funneling of airspace.
8. Please provide details of any constraints the introduction of this design may have on gliding, microlight flying, hang gliding, paragliding or model flying.
No comment.
9. Are there any local development projects, or existing particularly noise sensitive areas, that we should be aware of?
MOD does not make a comment on environmental aspects of ACPs.
10. Please advise us of any other issues or constraints you feel we could consider when designing its new airspace.
N/A for a TDA.

Kind regards,



f) NATS Manchester Airport

Appendix 1: Airspace Change Proposal Questionnaire**Warton Aerodrome Temporary Airspace Change Proposal
ACP-2020-031****Representative Organisation:**

(Please insert details of the Organisation you are replying on behalf of)

NATS Manchester Airport – no issues or objections with any of the questions below.

1. The design of airspace is appropriate due to the need described and in order to provide a safe environment for airspace users. (See: Appendix 2)		
Your response:	Agree	Disagree
Other comment:		
2. The design must allow access to sufficient area to accommodate the wide range of anticipated different types of air vehicle requiring to use it for the range of T&E purposes, but could be sub-divided.		
Your response:	Agree	Disagree
Other comment:		
3. The design must minimize the impact to other airspace users by activation only when required based on need.		
Your response:	Agree	Disagree
Other comment:		

4. The airspace should be as accessible as possible to other users and be managed in accordance with Flexible Use of Airspace (FUA) principles as far as is practicable (Efficiency and Airspace Sharing).		
Your response:	Agree	Disagree
Other comment:		
5. The design should be in accordance with current airspace regulation and use a pre-existing designation of airspace with established parameters (Conformity, Simplicity and Safety).		
Your response	Agree	Disagree
Other comment:		
6. Please let us know if there are any day time or night time constraints that you consider could take into account when making this application.		
Your response: None		

7. Please provide any details of any issues or constraints due to local General Aviation Operations that you believe may have an impact on the airspace design.
Your response: None
8. Please provide details of any constraints the introduction of this design may have on gliding, microlight flying, hang gliding, paragliding or model flying.
Your response: Not applicable.
9. Are there any local development projects, or existing particularly noise sensitive areas, that we should be aware of?
Your response: Not applicable.

10. Please advise us of any other issues or constraints you feel we could consider when designing its new airspace.
Your response please provide details: None.

Thank you for your cooperation in completing this questionnaire. Your comments will provide a valuable input to aid development of the ACP.

All completed forms have to be kept to evidence the engagement with stakeholders and interested parties but this information remains confidential.

g) Private Pilot A

Appendix 1: Airspace Change Proposal Questionnaire
Warton Aerodrome Temporary Airspace Change Proposal
ACP-2020-031

Representative Organisation: [REDACTED] GA & Microlight pilot
(Please insert details of the Organisation you are replying on behalf of)

1. The design of airspace is appropriate due to the need described and in order to provide a safe environment for airspace users. (See: Appendix 2)

Your response: Disagree

Other comment: ***The design is at best confusing and needs clarifying – see answer to Q5***

2. The design must allow access to sufficient area to accommodate the wide range of anticipated different types of air vehicle requiring to use it for the range of T&E purposes, but could be sub-divided.

Your response: Agree Disagree

Other comment: ***Without more detail of the types of air vehicle it is impossible to comment.***

3. The design must minimize the impact to other airspace users by activation only when required based on need.

Your response: Agree

Other comment:

4. The airspace should be as accessible as possible to other users and be managed in accordance with Flexible Use of Airspace (FUA) principles as far as is practicable (Efficiency and Airspace Sharing).

Your response: Agree

Other comment:

5. The design should be in accordance with current airspace regulation and use a pre-existing designation of airspace with established parameters (Conformity, Simplicity and Safety).

Your response: Disagree

I doubt that current airspace design regulations permit discrepancies in parameters. This airspace design is at best confusing with the following discrepancies of particular concern:

1. ***Engagement Letter page 3: "The proposed TDA lies wholly within the footprint of the existing Warton Military Air Traffic Zone (MATZ)." This implies/suggests a vertical limit of 2000ft.***
2. ***However, Engagement Letter Appendix 2 shows following:***



Vertical extent "SFC – 030", that is a vertical limit of 3000ft.

3. Whereas Slides at 'Temporary Airspace Change Assessment Meeting of 22 May 2020' page 4 states: "Maximum planned operating altitude of 5,000ft"

These discrepancies increase the volume of required airspace by 250% and require clarification. Ideally the airspace required should be reduced with a vertical limit of 3000ft.

6. Please let us know if there are any day time or night time constraints that you consider could take into account when making this application.

Your response

Night time GA flying occurs usually at lower rates than daytime, especially as microlight aircraft are not permitted to fly at night. Ordinarily, therefore, night operations of UAS in the airspace would be preferable to daytime ops. However, GA flight overwater at night adds additional risks that require consideration; risks to the pilots and to potential rescuers (eg RNLI) should rescue be required. Aircraft operating out of Blackpool should not be required to deviate further out to sea. Night time operation of the DA should routinely include a crossing corridor which minimises GA flight over the sea.

7. Please provide any details of any issues or constraints due to local General Aviation Operations that you believe may have an impact on the airspace design.

Your response

With Tarn Farm, St Michaels, Hoghton, Carr Valley and Ince airfields the local area is a busy microlight flying area and microlight aircraft generally have limited radio performance – handheld radios, composite/non-metallic airframes, etc all limit radio range. BAE Systems should consider a regular

or fixed daytime 'corridor' for microlights, perhaps through the Warton overhead.

8. Please provide details of any constraints the introduction of this design may have on gliding, microlight flying, hang gliding, paragliding or model flying.

See answer to Q7 above.

Your response

9. Are there any local development projects, or existing particularly noise sensitive areas, that we should be aware of?

Your response

10. Please advise us of any other issues or constraints you feel we could consider when designing its new airspace.

Your response please provide details

From: [REDACTED]
Sent: [REDACTED]
To: [REDACTED]
Subject: RE: ACP Response

Categories: Airspace & FLOPS

Good morning,

Thank you for providing feedback on the ACP for a Temporary Danger Area in the vicinity of Warton Aerodrome. Please see below responses to your queries which hopefully clarify some of them.

In your response to Question 2 you noted that you would like more detail of the air vehicles being flown within the airspace. Nominally, we will be operating fixed wing Unmanned Air Systems with an MTOW of up to 150kg. The initial use case however is for smaller and lighter (sub-20kg SUAS) air vehicles.

In your response to Questions 1 and 5 you noted inconsistencies between some of the documentation on the portal. The use of the term "within the footprint of" was supposed to imply the geographical (i.e. top-down) constraints of the proposed area, not vertical, however we can see this may have caused some confusion. You also noted that if it were vertically constrained within the MATZ it would have a ceiling of 2,000ft. The MATZ currently extends from 1,000-3,000ft, so whereas we are not wishing to operate above the MATZ, we will be utilising the area below it.

The reason for a mismatch between the engagement letter and the initial Assessment Meeting slide-pack is because the slide-pack and assessment meeting was completed in the very early stages of the process and hence the design was a concept at the time. Between that meeting and the publishing of the engagement letter we redesigned the airspace to the current design, thereby reducing the ceiling from 5,000ft to the current 3,000ft, in addition to reducing the overall footprint and area.

In response to Question 6 and 7 you noted the importance of consideration of GA users. As a GA pilot myself operating out of Blackpool I wholeheartedly appreciate the comments and agree. Whilst there is no current plan to instigate a permanent 'corridor' as such through the TDA we will be providing an information and crossing service from Warton Radar, which for the most part should be no different to requesting a MATZ penetration. Whilst of course that will limit the ability for NORDO traffic to transit, that is the primary reason we have designed the eastern box to remain at a 2,000ft ceiling in line with the ATZ, and hence overflight of the ATZ and that portion of the TDA will remain possible.

I hope this helps clarify some of your queries. Please don't hesitate to get back in touch if you have any other questions.

If you could let me know once you've digested the above information whether or not this changes any of the answers on the questionnaire it would be much appreciated.

Kind regards,

[REDACTED]

Appendix 2: Final Design Proposal

1. Introduction

- 1.1 Unmanned Air Systems (UAS) will operate in the vicinity of Warton Aerodrome (EGNO) to carry out Test & Evaluation (T&E) flights.
- 1.2 The UAS has no Detect and Avoid (DAA) capability and will be operating Beyond Visual Line of Sight (BVLOS). In the absence of a suitable DAA system, such flights are required to operate within segregated airspace. A Temporary Danger Area (TDA) is required to facilitate safe operation. See charted at Figure 1.

2. Timings

- 2.1 Multiple flights are scheduled to take place. Actual times of TDA activation will be promulgated by Notice to Airmen (NOTAM).
- 2.2 NOTAMs will be published a minimum of 48 hours ahead of planned operations.

3. Temporary Danger Area

Identification and Lateral Limits	Upper Limit Lower Limit	Remarks
[CAA to insert name] Area bounded by straight lines joining 0534502N 0025124W – 0534348N 0025042W – 0534202N 0025549W – 0534354N 0025659W	Lower Limit: SFC Upper Limit: 2000ft AMSL	Activity: UAS Beyond Visual Line of Sight (BVLOS) Hours: When notified Danger Area Activity Information Service: Warton Radar Frequency: 129.530 Tel: 01772 852374 Sponsor: BAE Systems
[CAA to insert name] Area bounded by straight lines joining 0534202N 0025549W – 0534354N 0025659W – 0534303N 0030056W – 0534108N 0025944W	Lower Limit: SFC Upper Limit: 3000ft AMSL	Activity: UAS Beyond Visual Line of Sight (BVLOS) Hours: When notified Danger Area Activity Information Service: Warton Radar Frequency: 129.530 Tel: 01772 852374 Sponsor: BAE Systems
[CAA to insert name] Area bounded by straight lines joining 0534303N 0030056W – 0534108N 0025944W – 0534122N 0030842W – 0533921N 0030728W	Lower Limit: SFC Upper Limit: 3000ft AMSL	Activity: UAS Beyond Visual Line of Sight (BVLOS) Hours: When notified Danger Area Activity Information Service: Warton Radar Frequency: 129.530 Tel: 01772 852374 Sponsor: BAE Systems

4. Operating Authority

- 4.1 The operating authority for the TDA areas **EG Dxxx**, **EG Dxxx** and **EG Dxxx** is Warton Radar. A Danger Area Crossing Service and Danger Area Activity Information Service (DAAIS) will be available during ATC operational hours from Warton Radar on VHF 129.530MHz and via telephone on 01772 852374.

5. Notification

- 5.1 CAA Airspace Regulation will promulgate TDA activations by NOTAM.

Figure 1 TDA **EG Dxxx, **EG Dxxx** and **EG Dxx** [to be charted by NATS]**