

GENERAL AVIATION ALLIANCE

Partnership in Aviation

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GENERAL AVIATION ALLIANCE (GAA) RESPONSE TO LONDON OXFORD AIRPORT ACP CONSULTATION

This is the General Aviation Alliance (GAA) response to the London Oxford Airport (LOA) Airspace Change Proposal Consultation dated 15th December 2017 and should be read in addition to any responses from individual GAA member organisations.

The GAA is a group of organisations representing the interests of many in the UK General Aviation (GA) industry. Members of the GAA include: British Balloon and Airship Club (BBAC); British Gliding Association (BGA); British Hang Gliding and Paragliding Association (BHPA); British Microlight Aircraft Association (BMAA); British Parachute Association (BPA); Helicopter Club of Great Britain (HCGB); Light Aircraft Association (LAA); PPL/IR Europe – European Association of Instrument Rated Private Pilots; Royal Aero Club of the United Kingdom (RAeC). The GAA coordinates about 72,000 subscription paying members of these bodies.

*British Balloon and Airship Club
British Gliding Association
British Hang Gliding and Para gliding Association
British Microlight Aircraft Association
British Parachute Association*

*Royal Aero Club of the United Kingdom
Helicopter Club of Great Britain
Light Aircraft Association
PPL/IR*

1. Introduction

The GAA strongly objects to the proposed ACP on two principal grounds:

1. It does not represent an equitable use of airspace and would significantly increase risk for other airspace users, and;
2. Class D airspace is not necessary to achieve an acceptable level of safety for Oxford's current and likely future operations.

London Oxford Airport (LOA) and RAF Brize Norton are located in an Area of Intense Air Activity (AIAA) that has been identified by the CAA's Future Airspace Strategy VFR Implementation Group (FASVIG) team as a "VFR significant area". It is home to numerous airfields used by the General Aviation (GA) community and has a high density of GA transit traffic; indeed, this important piece of Class G airspace is pivotal in providing north-south and east-west transits within the UK. Higher classifications of airspace in the vicinity already limit GA activity and give rise to known choke points. Expansion of Class D airspace in this area would undoubtedly exacerbate this problem and increase the risk to GA aircraft, which experience has shown generally try to route around controlled airspace wherever possible. It should also be noted that the proposal would adversely impact individual glider sites designated by Sport England as Significant Areas for Sport (SASp) in the area.

Whilst we believe that several pilots were involved in the development of the proposal, it is also apparent that Sport and Recreational Aviation (S&RA) operations are not fully understood by the sponsors or airspace designers as the proposed option effectively shuts most of the primary soaring area in the UK. The UK is a leading sport gliding nation and the area affected by the ACP has a large number of highly active gliding and para-gliding sites that promote and conduct cross country soaring. The proposal renders it virtually impossible to return and safely land at many gliding sites in the vicinity and in 2 cases would probably result in closure of the affected gliding clubs.

The GAA believes that any application for Class D airspace, especially within an AIAA, should be required to demonstrate that this is the only feasible option to reduce unacceptable levels of risk which are not able to be mitigated in any other way. We believe that alternative mitigations can and should be implemented to enhance the creation of a known traffic environment around the existing ATZ. We also consider that the overall safety benefits that this ACP would provide to LOA operations can be achieved without recourse to Class D airspace and the grossly disproportionate safety and economic impacts on GA.

2. Consultation process

2.1 Timing. The public consultation document was issued immediately prior to the introduction of CAP 1616, thereby avoiding the need for greater transparency, regulatory oversight and stakeholder involvement. Furthermore, it contained several potentially misleading elements, which would have become evident under the new gateway-based process.

2.2 CAP 725 v CAP 1616. In this case, which involves two major ACPs (for LOA and RAF Brize Norton), each of which and in combination will affect significant numbers of aviation and non-aviation stakeholders, we believe that the most up-to-date ACP process should have been adopted. Following the statement made to Parliament in October 2017 - "The Government has issued revised Air Navigation Directions and Air Navigation Guidance to the Civil Aviation Authority (CAA) which will take effect from 1 January 2018, although we expect that airspace change

sponsors will seek to follow the new guidance immediately and apply it retrospectively.” - we believe that the sponsor should have made every effort to follow the guidance contained in CAP 1616. Indeed, we are not satisfied that this ACP should be further progressed against the outdated process and are calling separately on the Aviation Minister to intervene on this matter.

2.3 Focus Group. We note that the sponsor elected not to form a Focus Group as recommended at Stage 2 of CAP 725. Such a group would have provided advice and opinions on the sponsor’s airspace design options, highlighted potential consequences that may have been overlooked, and assisted the sponsor with the identification of stakeholders and the formulation of the consultation material. The consultation document does not explain the rationale behind this decision, which is unhelpful given the amount of stakeholder assistance available and the potential adverse impact of this ACP on GA operations.

2.4 Aviation stakeholder engagement. We do not consider that reasonable steps have been taken to ensure that aviation stakeholders received the necessary information or, indeed, to garner feedback from them (be it via email, the post, meetings or other means). Despite the consultation document claiming at 6.4.1 ‘A good deal of pre-consultation engagement was conducted by LOA with the BGA, LAA, BHPA and the GAA.’, it is evident that, in practice, the sponsor has not taken reasonable steps to ensure proper engagement with those that could be affected. No effective engagement has taken place with numerous aviation stakeholders specified in the consultation document communication, including the UK’s principal national sport flying organisations e.g. the BGA, BMAA and LAA, plus local airfields and sporting clubs e.g. Enstone, Bicester, Edgehill, Oxford Gliding Club, Oaklands Aerodrome, Turweston Aerodrome. Where engagement is stated as having taken place, as noted at 6.5 in the document, it has often been superficial and was presumptive of the ACP being approved as proposed; no substantive effort has been made to seek alternative arrangements.

2.5 Non-aviation stakeholder engagement. Despite the extensive list of non-aviation consultees listed at A4, it is evident from our own polling that of 400 contacted by the GAA, a full 50% of those contacted who responded had not received notice of the consultation. Overall, we believe that the consultation document infers a significantly greater degree of engagement than took place. We are saddened and dismayed that the sponsor has chosen to deny many identified stakeholders the opportunity to respond in a timely manner and led the reader to conclude a significantly higher level of engagement than is the case.

3. Environmental aspects

3.1 Impact of the options considered. While the sponsor has made an attempt at assessing the environmental impact of each option, these have been presented from the operational perspective of LOA and do not adequately consider the resultant environmental impacts from GA traffic that have elected to route around the proposed additional Class D airspace or have been denied access to it. There is also no mention in the consultation document of the effect of potentially diverting significant levels of GA traffic across the Cotswolds Areas of Outstanding Natural Beauty (AONB), in particular in the areas of CTA 1 the base of which is approximately 1500ft above ground level (AGL).

4. Rationale for change

We are not satisfied that the justification for change has been properly considered or presented. The proposal does not represent an equitable use of airspace; the wants of training, executive and limited commercial operations at LOA would significantly increase risk for other airspace users in gross disproportion to the benefit gained by the sponsor. We do not believe that the current (or likely future) level and nature of movements at Oxford require class D airspace to achieve an acceptable level of safety and object to the precedent that having class D in such a context would set.

4.1 Safety

4.1.1 ALARP. Reducing risks to As Low As Reasonably Practicable (ALARP) is not confined to the aviation sector. The Health and Safety Executive (HSE) publish comprehensive guidance on the subject which is particularly helpful in assessing this ACP.

“Reasonably practicable’ requires a computation must be made by the risk owner in which the quantum of risk is placed on one scale and the sacrifice involved in the measures necessary for averting the risk (whether in money, time or trouble) is placed in the other, and that, if it be shown that there is a gross disproportion between them – the risk being insignificant in relation to the sacrifice – the defendants discharge the onus on them.”

Ensuring a risk has been reduced to ALARP entails weighing the risk against the sacrifice needed to further reduce it. The process is not one of balancing the costs and benefits of measures but, rather, of adopting measures except where they are ruled out because they involve grossly disproportionate sacrifices. Many decisions about risk and the controls that achieve ALARP are not obvious and require judgment. Where introduction of a safety measure to control a hazard transfers risk to others, the transferred risk should be treated as a separate matter for which control measures must be introduced to reduce its risk to ALARP. If the risks from the safety measure to be introduced are greater than the risks which it is sought to prevent, the measure should not be introduced. In terms of the ACP, whilst we have had no sight of the sponsor’s Hazard Analysis (which we assume will be provided to the Regulator in accordance with CAP 760), we would consider a reduction in risk level to ALARP by transferring the risk to GA airspace users to be grossly disproportionate.

4.1.2 Choke points¹. Following on from the above, the sponsor has failed to properly evaluate the safety risk to GA at choke points where traffic density is likely to be increased as a result of the ACP. Extant GASCo advice to fly with no less than 2nm lateral and 200ft vertical separation from controlled airspace creates a further reduction in available airspace at such hot spots. The very real risks associated with choke points were highlighted by recent mid-air collisions near Wescott and between RAF Brize Norton and RAF Benson. In respect of the latter, Section 1.11.6 of AAIB Report 5/2010 showed that the level of GA activity in that area can be around 75 aircraft per hour and between 15-25 aircraft at any one time. This is a level which would probably exceed LOA’s ATC handling capability and we note that the sponsor makes no mention of enhancing that capacity to meet demand from GA traffic requesting crossing clearances through the proposed Class D airspace. Without

¹ We use this term ‘choke point’ to refer to an area of GA traffic congestion due to surrounding airspace design.

such an uplift, the proposal is likely to result in 'management by exclusion' which is specifically prohibited in Appendix 5 of CAP 725.

4.1.3 Increased collision risk. QinetiQ Report 10/02707 'Class G Airspace Modelling', to which the sponsor makes no reference, states '... the activity that takes places within Class G airspace is sufficiently well understood and predictable in its nature, such that the level of activity at any time can be calculated. More specifically, modelling can quantify the expected level of use and identify activity hotspots'. We have analysed present and proposed airspace widths and heights at known and projected choke points and have estimated the change in collision risk based upon guidance contained in AAIB Report 5/2010 if the majority of GA traffic elects (as is likely) to route around the proposed controlled airspace.

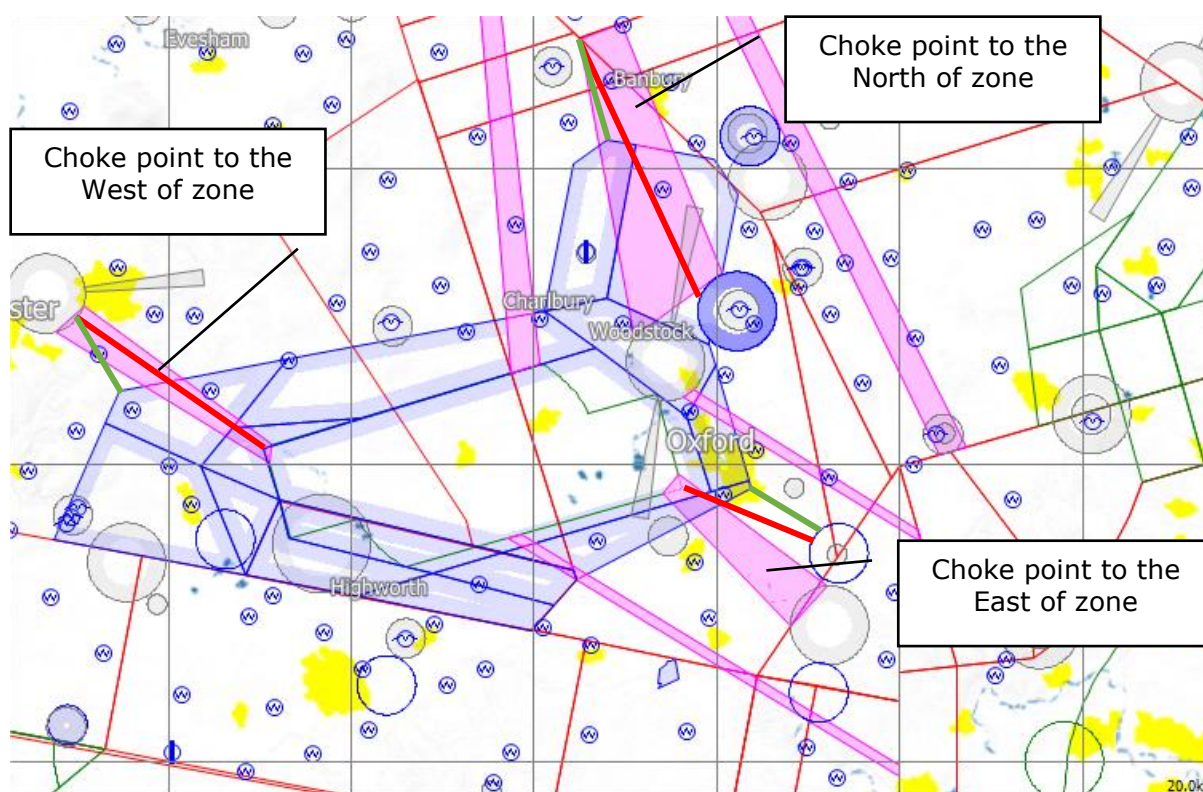


Figure 1 – Position of VFR choke points

This analysis suggests that the risk of mid-air collision is roughly doubled at the south-eastern edge of the proposed airspace in the Brize Norton-Benson gap (East), and roughly trebled over the proposed Oxford CTR1 (North) and in the area around Kemble (West). Wholesale adoption by VFR traffic of extant GASCo recommendations regarding proximity from controlled airspace could see these risk levels elevated by an order of magnitude. Overall, we believe that the sponsor's decision not to conduct a meaningful analysis of either the LOA ATC capacity or the collision risk at GA choke points has wilfully misled the reader in respect of the level of risk that would be transferred to other airspace users, particularly GA.

4.2 Data presented. We note that at 2.4 and Figure 3 the sponsor highlights as a key driver to the ACP evidence of a Category C airprox (no risk of collision) but fails to mention the Airprox Board's findings. We find the sponsor's extensive reliance on this Airprox to be wilfully misleading.

We question the inference of A1 and A2 particularly as the sponsor does not clarify the proportion of traffic in contact with or under control of LOA or RAF Brize Norton.

Furthermore, we found that around one in six of the safety events (11 of 60) listed in A3 to be wholly irrelevant to the ACP and of the remaining, 37 could be mitigated by use of an RMZ and 10 by closer coordination with RAF Brize Norton ATC.

Our analysis of A3 Safety Events shows that of the 37 incidents cited:

- 11 were not relevant to the ACP:
 - 4 were due to error by pilot(s) in receipt of a service by LOA ATC
 - 6 were due to inadequate performance by LOA ATC
 - One was judged 'category E' by the UKAB (no risk of collision)
- 15 could have been mitigated using an RMZ around the extant ATZ
- 10 could have been avoided by closer radar coordination between Brize and LOA
- One could have been avoided by the existence of or closer compliance with Local Agreements

Our analysis of the A3 'Incidents are those where an approach to Runway 19 was broken off due to an aircraft confliction' shows that of the 23 incidents cited:

- 22 could have been mitigated using an RMZ around the extant ATZ
- One could have been avoided by closer radar coordination between Brize and LOA

We are surprised and disappointed that the sponsor has seen fit to present non-specific and often irrelevant data purporting to support their proposal. We are concerned that readers will fail to recognise the shortcomings in the information presented and will be misled into believing the risk level to be significantly greater than reality suggests and to accept the sponsor's assertions at face value.

4.3 Traffic forecast. The ACP sponsor is required to provide reasonable traffic forecasts and that they be used to reflect the future impact of the proposal. We note at 2.11 that traffic numbers are not expected to increase because of the introduction of the new proposed airspace and approach procedures. The sponsor has chosen not to draw the reader's attention to the fact that no regular scheduled commercial air transport operations occur or are forecast to occur at LOA, and that since 2006 LOA has had in place a Section 106 Agreement to limit movements and hours of operations. We are aware that in terms of traffic movements, LOA is ranked 27th in the UK, significantly behind Gloucester Staverton (ranked 10th with roughly double LOA's movements) to which a considerable proportion of LOA's training traffic is dispatched to operate under IFR outside controlled airspace.

5. The proposal and alternative mitigations

The consultation document is, at best, subjective in considering the options, and fails to properly consider appropriate alternative mitigations which would contribute to achieving the objectives desired but without the introduction of Class D controlled airspace.

We note from Minutes of the 23rd June 2015 Framework Briefing meeting that the sponsor had initially opted for introduction of an RMZ but had been coached away from this towards a Class D airspace solution by the regulator. We are deeply concerned that, whilst the CAA recognised this proposal would be strongly contested, no proper assessment of risk exportation was made or commissioned. Furthermore, the sponsor has failed to include 'heat maps' of traffic in the vicinity of the proposed airspace as recommended by the CAA.

We believe the sponsor should re-assess the option of an RMZ for the following reasons:

- Entry into an RMZ without establishing two-way communication is prohibited under the same regulations which prohibit entry into regulated airspace (e.g. Class D or an ATZ with ATC) without permission, and for that reason an RMZ is a known traffic environment. Upon initial contact, ATC have the option of offering a level of ATSOCS service appropriate to extant traffic conditions to enhance situational awareness. Introduction of an RMZ would not prove onerous for any aircraft able to carry a handheld radio.
- It is unclear why the sponsor states at 5.4.2 “An RMZ would add additional complexity in terms of airspace classification, and differing rules would apply in those separate areas. This was deemed unacceptable because this would introduce an additional layer of complexity to an already busy volume of airspace.” The RMZ boundary would be marked on aeronautical charts using conventional nomenclature, and pilots would take heed of its existence during flight planning. The inference by the sponsor that aircrew would fail to heed ATC advice within an RMZ is disingenuous.
- By omitting any reference to ATC capacity, the sponsor neglects to state the level of traffic density within the RMZ at which an air traffic service would be compromised. Given that the lateral boundary of the sponsor’s considered RMZ equates closely with that of the proposed Class D, Section 7.2.1 leads us to believe that the sponsor would unfairly prioritise LOA traffic and result in non-LOA traffic being excluded, which is specifically prohibited within CAP 725 (A5).
- The sponsor has failed to present an assessment of the extant use of RMZs within EU member states, particularly in Germany where these are implemented at some 14 aerodromes with IAPs and with a consistent lateral dimension of 10nm x 6nm.
- In Section 6.4.3, the sponsor proposes to switch a portion of OX CTR1 to Class G when LOA is operating on Runway 01 but provides no indication of how such a change of airspace classification might be promulgated to non-radio traffic or to traffic not in contact with LOA ATC at the point at which a runway change would be made from 01 to 19.
- We believe the question at 6.2.4. regarding alternative MAPs for Runway 19 is flawed as it is difficult to comment in the narrow context without knowing the detail of coordination plans with RAF Brize Norton. Notwithstanding that, our comments are:
 - We would not object to option 1 as it is similar to the current procedure, and vertical separation could be achieved in conjunction with adjustment to RAF Brize Norton 25 IAP. It is unclear whether the sponsor envisages RAF Brize Norton traffic being above LOA MAP traffic or vice versa, but we would recommend keeping LOA traffic low until past the point at which RAF Brize Norton traffic would be within 5nm (or whatever reduced separation minima might be approved). We would require more information on separation minima to comment fully.
 - We would not support the easterly option. Although it would reduce conflict with RAF Brize Norton, it is in a new location which would take aircraft further away from Oxford and, from the size of the RMZ which we propose, would create additional traffic in the critical Brize Norton/ Benson choke point.
 - We would not support the westerly option as, although an alternative exists for RAF Brize Norton to route arrivals direct via its overhead, it is close to Enstone.

- Our alternative proposal would be to execute a climbing righthand turn to return to the OX as this would help mitigate the hazards of flying over the built-up area of Oxford in conditions of high cockpit workload and could be contained in the area between LOA's ATZ and RAF Brize Norton's CTR.

Unsurprisingly, the GAA objects strongly to the proposal and would welcome the opportunity to discuss with the sponsor the recommendations set out below.

5.1 Recommendations. We recommend that the sponsor:

1. Introduces an RMZ as shown below with hours of operation as those of LOA.
2. Makes significantly greater progress in developing the substantial number of Letters of Agreement required and ensures that these reflect pragmatic solutions to inter-operability and avoid practices which restrict extant operations.
3. Addresses their own admission that the proposed airspace will restrict operations from more than 7 local airfields.
4. Implements a single ATCC, with appropriate CONOPs, to coordinate and deconflict both LOA and RAF Brize Norton traffic. This would have the benefit of conferring ALARP and a significant safety benefit for all airspace users by providing a seamless radar picture and full traffic coordination. We strongly recommend this measure be implemented regardless of the ACP and included as part of the sponsor's hazard mitigation plan.
5. Clarifies how the proposed CTR 1 and CTA 1 will be controlled outside the hours of LOA radar operation.
6. Given the high volume of S&RA activity within the Oxford AIAA, utilises a FLARM receiver to enhance ATC situational awareness. We recognise that FLARM cannot be used for aircraft vectoring and control; however, its use will significantly enhance 'air picture' as demonstrated by Boscombe Down and at least two other RAF air traffic units.
7. Considers together with RAF Brize Norton the alternative airspace design we propose at Annex A which, in conjunction with the adoption of the above recommendations, will help achieve the sponsor's objectives, but without the addition of Class D airspace at LOA. Procedure design work has been undertaken to ensure it is possible to achieve this reduction and we would welcome more detailed discussion with the sponsor to ensure it is compatible with their operational requirements.

6. Conclusion

For such a wide-ranging ACP with obvious safety and economic implications for GA, we found the sponsor's approach to consultation both with aviation and non-aviation stakeholders to be sadly lacking. We are disappointed by the sponsor's decision not to form a Focus Group as recommended in CAP 725 as such a group would have provided invaluable input on the airspace design options and no doubt helped to craft a more palatable solution.

Class D airspace is not necessary to achieve an acceptable level of safety for Oxford's current and likely future operations. As it stands, the consultation document

contains incomplete and misleading information, fails to properly assess the considerable and disproportionate impact that the proposed Class D airspace would have on the GA community, and pays scant regard to measures that would negate the need for it.

Given the nature of the ACP, which needs to be considered alongside the RAF Brize Norton ACP, we are disappointed that the sponsor chose not to follow the new CAP 1616 process. Indeed, we are not satisfied that this ACP should proceed any further under CAP 725 and are calling separately on Government to intervene on this matter.

Notwithstanding our fundamental concerns about the consultation process and the substance of the consultation document, we believe it should be possible, through better engagement, to meet the needs of both the sponsor and other aviation stakeholders by:

- Implementing a RMZ as indicated above;
- Implementing enhanced coordination with RAF Brize Norton ATC in a single collocated unit;
- Developing the LOA Runway 19 MAP as suggested to avoid flying over the built-up area of Oxford CTR;
- Mitigating overall risk to ALARP for all airspace users.

Whilst we strongly object to the current proposal, the GAA remains willing and able to assist the sponsor in developing a compromise solution that satisfies all airspace users and would welcome the sponsor's request for additional engagement.

A handwritten signature in black ink, appearing to read 'S Noujaim', with a stylized flourish underneath.

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Annex A - Proposed airspace design for LOA and RAF Brize Norton

