BRITISH GLIDING ASSOCIATION RESPONSE TO THE EXETER AIRPORT AIRSPACE CHANGE CONSULTATION DATED 9th MARCH 2017

Index

1. Introduction

The British Gliding Association

The BGA is the national governing body of sport gliding and represents all UK gliding clubs. There are approximately 7000 active glider pilots in the UK who fly approximately 2300 aircraft. They are formed into 80 clubs of various sizes situated all across the UK. Each club is effectively a small local business serving the aviation needs of its members, and is non-commercial, relying on members' continuing funding and effort to operate. Some of the larger clubs employ a few staff. Membership numbers can vary from the very smallest clubs of around 30 members to clubs with many hundreds of members and with infrastructure, aircraft and equipment valued at millions of pounds. Gliding is a significant element of GA that contributes £3bn annually to the UK economy, as described in the Governments GA Strategy.

Many of the clubs have charitable status under the Community Amateur Sports Club regime. Most provide subsidised membership and flying to young people. Many aerospace and airline professionals have developed their interest in aviation through gliding.

Nationally, approximately 250,000 glider launches and approximately 115,000 hours are flown each year. Flight distances recorded by self-selecting cross country pilots totalled over 1.2 million kilometres in the UK, but this figure represents perhaps 50% of those flights actually made; not all pilots choose to record their flights on the on-line ladder competition website www.bgaladder.co.uk .

Summary of response

The BGA has no objection in principle to the application of Controlled Airspace (CAS) in situations where a rational assessment of public risk leads to the requirement for CAS as a logical and proportionate conclusion. However, it is clear that the airspace design proposed by Exeter does not meet that criteria.

This following BGA response to the consultation considers airspace safety around Exeter airport, analyses data, notes BGA efforts to engage with Exeter airport, describes why the BGA opposes Exeter's airspace design, identifies an approach, and proposes an airspace design utilising RMZ/RMA's that satisfies the requirements of all airspace users and provides efficient use of airspace consistent with the safe operation of aircraft and expeditious flow of air traffic.

The creation of an RMZ allows the airspace to retain its original classification, yet also allows for enhanced situational awareness for all users and for ATC. This therefore increases safety for all aircraft flying in that block of airspace while imposing minimal additional restrictions.

2. Gliding and other General Aviation activity in the South West of England

Gliders have been operating over the Exeter countryside for over 70 years. Cross country glider flights are flown frequently through to the south west from many clubs in the south of England during the spring, summer and autumn. For these flights to be successful and safe they need to follow thermal energy lines and avoid poor soaring areas. Soaring conditions are frequently poor near the coast. The consequence of this is that the gliders operate in an east/west line to the north of Exeter Airport for many of these flights. There are, additionally, conditions unique to coastal areas that have been exploited historically by many glider pilots transiting the area, namely sea breeze frontal convergences. These can set up as long lines of rising air following the contours of the coastline at some distance inland, including in the vicinity of Exeter airport.

Devon and Somerset Gliding Club (DSGC) has trained glider pilots for decades. Its pilots frequently undertake cross-country flights into Cornwall and up the SW peninsula into the rest of the UK. It runs competitions in which visiting pilots travel over similar territory. Its members also fly glider excursions down to the south coast to take advantage of strong southerly winds to fly the cliffs from Lyme Bay to Exmouth, then back to the airfield.

The BGA is member of the General Aviation Alliance (GA Alliance), an organisation which represents the interests of a wide range of sporting and recreational aviation aviation pursuits, including light and microlight aeroplanes, helicopters, balloons, paragliders and others. Many of these aircraft transit to and from the South West and will be negatively impacted by the proposed airspace design. The GAA has asked the BGA to where possible represent its member's views in discussion with Exeter airport.

3. Understanding gliding needs

Any airspace change proposal is required to take into consideration other aviation stakeholders. Following the publication of the Exeter airspace change consultation document, the BGA approached Exeter airport to ask why the needs of gliding and other GA traffic that routes through the affected area had not been sought nor considered. During April 2017, Exeter airport agreed to a meeting with the BGA to understand and discuss the needs of gliding. At that April meeting (meeting note attached) and in correspondence in advance of it;

The BGA;

- Described the extent of the historical and current use of the Class G airspace in the Exeter area by glider traffic from all over the south of England
- Explained how the continued existence of gliding clubs as self-funded, not-for-profit entities are dependent on being able to meet their members needs including cross country gliding, and that the current proposal therefore threatens the continued existence of a number of gliding clubs
- Explained how cross country glider flights are flown
- Described the decades long use of good soaring conditions in the Class G airspace passing east/west immediately to the north of Exeter airport that provides a 'soaring highway' to and from the south west

- Explained why controlled airspace is effectively a vertical and horizontal barrier to soaring flight.

Exeter Airport;

- Expressed the desire to enhance the safety of its operation by the creation of a known environment for aircraft in the Exeter area.
- Expressly stated that the objective is not to enhance the value of the Exeter Airport operation by the appropriation of as much airspace as possible.
- Described earlier discussion with local operators prior to the publication of the formal consultation document. Discussions had taken place between the Devon and Somerset Gliding Club (DSGC) and Exeter airport. Until the meeting requested by the BGA, there had been no consultation with the wider gliding community.
- Made assurances that Exeter Airport had always intended to consult more widely following the publication of the formal consultation, and that Exeter Airport was ready to hear and take account of the concerns of the BGA as the national body representing gliding in the UK.
- Described the published airspace design to the BGA as the "starter for 10" and assured the BGA that it was highly likely to be modified in the light of responses from affected parties, including the BGA. The statement "starter for 10" has been repeated by Exeter since the meeting.
- Has not quantified how and by how much the airspace design would increase safety
- Invited the BGA to propose modifications to the proposed airspace design that would ameliorate the adverse impact of the design on gliding in particular and on other GA.

4. Key areas of concern

Safety

Soaring pilots generally have to treat CAS as a no-go area. If the airspace design is implemented as proposed it would force such aircraft to fly at a reduced height compared to that flown historically, thereby reducing safety and likelihood of success (resulting in out landing). The alternative would be to route much further north than historically, into proven poorer soaring conditions and over higher ground, into an area already restricted by the Cardiff CTA, thereby reducing safety margins and the chances of a successful transit. This proposal results in significant safety issues for gliding and other transiting traffic that Exeter has not considered within its proposal.

Proportionality

The airspace design proposed by Exeter is by their own admission based on a line drawn around the areas currently flown over by *all* traffic that uses Exeter airport including CAT, General Aviation and RAF Brize Norton based military traffic carrying out procedural training. It is understood that Exeter utilise procedures that were implemented prior to any need to consult with the public, and that Exeter are keen to avoid any changes that require public consultation. There have been three 'no risk of collision' airprox in the vicinity of Exeter in the past 12 months, and a similar number of additional airprox in total in the same area in the previous 10 years. On a number of occasions, controllers have had to direct traffic around potential conflicts, which is presumably the role of an air traffic controller. The existing airspace is, as described by Exeter, tolerably safe and commercial air transport movements are not increasing. Implementing an area of CAS many times larger than that of Gatwick airport is not proportionate to any real or perceived need.

Limiting access to gliding and other traffic

The proposed airspace design will result in a significant reduction in historical freedoms and damage gliding. On any given day where there is suitable soaring weather and primarily from March through to September, glider cross-country flights are flown in the area covered by the proposed airspace design. Soaring pilots generally have to treat CAS as a no-go area. As explained above, if the CAS is implemented as proposed it would force such aircraft to fly at a reduced height compared to that flown historically. The alternative would be to route much further north over higher ground and into an area already restricted by the Cardiff CTA. This proposal effectively cuts off the south west to gliding and much of the light end of aviation and is damaging to both to private owners of aircraft and their clubs.

Damage to the Devon and Somerset Gliding Club.

DSGC has a long and important history of operating in this region well before Exeter Airport began its gradual commercial expansion. In 2015, DSGC recorded over 7000 glider flights in the year, totalling 2300 hours. Its operation has been persistently squeezed further north as Exeter Airport has expanded, damaging its ability to fly locally, eroding its freedoms, and threatening its viability. Exeter's proposals add further severe limitations on its future success. The draft LOA, *which is published in the ACP without DSGC's agreement and certainly not as an agreed document*, appears to offer some comfort, but for DSGC traffic only. However, an LOA has no guarantees and can be removed at a whim. Uncertainty damages any business, and Exeter's proposals have already introduced significant uncertainty over DSGC's future. Rather than introduce LOA's to mitigate poor airspace design, the BGA strongly believes that the airspace design should be designed appropriately.

Damage to freedom of movement for GA traffic.

Exeter Airport currently provides a LARS facility for any traffic in the area that prefers to make use of the service. Figures for those choosing to use LARS compared to those who do not have not been made available in the proposal. The culture of controllers is to seek ever-greater control, and this may be a driver in Exeter Airport's desire to have full control over a significant volume of airspace. This is contrary to the wishes of the many GA pilots who prefer to choose whether and when to request a service from a LARS unit. Introduction of the proposed airspace would damage this freedom significantly, whilst delivering no benefit to GA traffic.

5. Analysis of Exeter Airport's proposed airspace design

Overview

The BGA contends that the proposed airspace design is larger than necessary, and disproportionate to the needs of Exeter Airport, particularly when taking into account the number of Air Transport movements. The BGA has undertaken a comparison.

Exeter Proposed Class D Airspace Dimensions

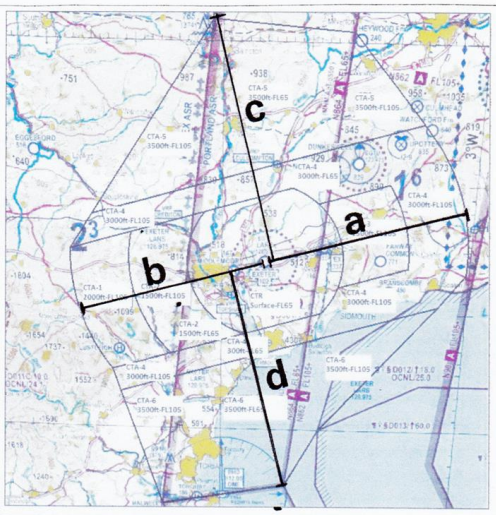


Figure 3 Exeter Airport CAS Design Concept Showing Proposed Lateral and Vertical Extents of CTA Sectors

Distance **a** - Greater distance from the runway threshold to the outer edge of Class D airspace (base of 3000' or below) nm.

Distance **b** – Lesser distance from the runway threshold to the outer edge of Class D airspace (base of 3000' or below) nm.

Distance **c** – Greater of the maximum perpendicular distances from the runway centreline to the outer edge of Class D airspace (base of 3500' or below) nm.

Distance **d** – Lesser of the maximum perpendicular distances from the runway centreline to the outer edge of Class D airspace (base 3500' or below) nm.

Comparison Method

A table was made up of all airports in England and Wales with more than 4000 Air Transport movements over the year of 2016, the last full year (CAA table 'Aircraft Movements 2016'). The 'premier league' of London Heathrow, London Gatwick and Manchester were omitted as being unrepresentative. All other airports were listed in descending order of Air Transport movements, and divided into 3 bands as follows:-

Band 1 – Greater than 80 000 commercial movements
Band 2 – Less than 80 000 but more than 20 000 commercial movements
Band 3 – Less than 20 000 commercial movements

Measurements were then taken to the outer edge of each airport's controlled airspace, taking the Exeter proposed base altitudes as the datum (3000' or below on the extended centreline, 3500' or below on either side). Four measurements were obtained as illustrated on the map of the proposed design below.

The measurements were then colour coded and added to the table as follows:-

Red – measured distance is greater than for Exeter's Proposed Airspace
Black – measured distance is similar to Exeter's Proposal
Green – measured distance is less than for Exeter's proposed airspace

Notes

Many airports either interact with or are embedded within other airspace (e.g. LTMA). Where this is the case the * symbol is added to the appropriate measurement.

A significant number of airports have airspace which is wider on one side than the other. Where this is the case (3 miles or greater) **'A'** (Asymmetric) is added to the column end.

Results

The following table shows the results;

Band	Airport	A.T. Movts (x 1000)	Class 'D'	Dist **a** (nm)	Dist **b** (nm)	Dist **c** (nm)	Dist **d** (nm)
Band 1	Stansted	164	Yes	**12 nm ***	**12 nm ***	**14nm ***	**12.5nm ***
	Luton	106	Yes	**13nm * (3500' to 17)**	**13.5nm***	**12.5nm***	**5nm * A**
	Birmingham	105	Yes	**12.5 nm (3500' to** 16.5**)**	**12.5 nm (3500' to** 16.5nm**)**	**10nm**	**8nm**
	L. City	84	Yes	**7nm ***	**6nm ***	**5nm ***	**5nm ***
Band 2	Bristol	62	Yes	**15nm**	**12nm ***	**7nm**	**5nm**
	E. Midlands	59	Yes	**15nm**	14.5nm	**9.5nm**	**9.5nm**
	Newcastle	43	Yes	15.5nm	**12nm**	**13nm**	**6nm A**
	Liverpool	39	Yes	**15nm * (3500'to 18nm)**	N/A MCR CTA	**14.5nm* MCR CTA**	N/A MCR CTA
	Southampton	38	Yes	15.5nm (3500' to SW)	**11nm**	**11nm**	**9nm**
	Leeds Bradford	32	Yes	15.5nm	**12.5nm**	**14nm**	**5nm A**
	Norwich	28	Yes	**12.5nm**	**12.5nm**	**6.5nm**	**6.5nm**
Band 3	Cardiff	16	Yes	**12nm ***	**11.5nm**	**14nm**	**8.5nm A**
	EXETER	**13.5**		**16.5nm**	**15.5nm**	**20nm**	**18nm**
	Isles of Scilly	12	No	**X**	**X**	**X**	**X**
	Doncaster	11	Yes	**13nm**	**12.5nm**	**6.5nm**	**6nm**
	Humberside	9	No	**X**	**X**	**X**	**X**
	Lands End	9	No	**X**	**X**	**X**	**X**
	Newquay	9	No	**X**	**X**	**X**	**X**
	Southend	9	Yes	**14nm* (3500'to** 16.5nm**)**	**10.5nm ***	**14nm ***	**10nm*A**
	Biggin Hill	8	No	**X**	**X**	**X**	**X**
	Blackpool	8	No	**X**	**X**	**X**	**X**
	Bournemouth	4	Yes	N/A Solent CTA	**10nm**	N/A Solent CTA	**5nm A**
	Durham	4	Yes	**12nm**	**8nm**	**5nm**	**5nm**

Data from CAA UK AIP A/D Index

Analysis

Despite the complications for some airfields associated with the interaction of neighbouring controlled airspace, especially around London and Manchester, the results are both startling

and compelling. **No airfield** in England or Wales has **even one** measurement which exceeds the dimensions of the proposed Exeter Class D airspace within the given altitude parameters.

Looking more closely at the figures (excluding L. City and Exeter except where stated);

	Maximum	Minimum	Average	Band 3 Average	**Exeter**
Distance **a**	15.5nm	12nm	13.75nm	12.75nm	**16.5nm**
Distance **b**	14.5nm	8nm	11nm	10.5nm	**15.5nm**
Distance **c**	14.5nm	5nm	10.3nm	9nm	**20nm**
Distance **d**	12.5nm	5nm	7.2nm	7nm	**18nm**

It can be seen that although distance **a** (normally associated with the most frequently used approach/runway), is more closely on a par with the proposal, Exeter's design is still nearly 3nm longer than average. This despite Exeter's requirement being less than usual due to its 3.5 degree glideslope.

All Exeter's other parameters are substantially greater than the other airports, especially the width which is over twice the average amount.

Half of the airports in Band 3 do not have Class D airspace. Exeter's design takes up substantially more airspace than the rest.

Many airports have 'asymmetric' airspace, often to accommodate neighbouring airspace stakeholders.

Newcastle Airport is a good comparison to Exeter. Having three times the Air Transport movements, it sits under an airway (P18, Class D to the North and below FL125 to the South) which crosses the overhead at nearly 90 degrees. Newcastle makes use of asymmetric airspace, the widest downwind width being 13nm, while to the North the width is only 6nm. Despite Newcastle having only half of Exeter's airways traffic to the North, this model would work for Exeter.

Although the above table has not been corrected for airfield elevation, only three airports (Bristol, Leeds Bradford and Luton) have a difference in elevation to Exeter's of more than 250', equivalent to less than a mile displacement on approach. Airfield elevation is therefore not considered statistically significant.

<u>Conclusions</u>

Although sitting at the top of its band, Exeter sits firmly in the third tier by air transport movements, having half the movements of Norwich, the bottom of band 2.

In discussion with Exeter staff it has become apparent that the design has encompassed all existing and anticipated flight paths into and out of the airport and has proposed the placement airspace all around them. We contend that this approach is wasteful and disruptive to other users of the airspace. We suggest that a re-design of approaches and departures should be implemented with the objective of using best practice for these whilst minimizing the airspace required to implement them.

In its proposed design, Exeter has comprehensively failed its own and the CAA's criteria on efficient use of airspace and disruption of other stakeholders. Both the vertical and the horizontal extent of the proposed design are far greater than the industry norm. It is easy to understand why this approach has been taken. It is clearly cheaper and simpler for Exeter not to have to rethink the way it uses the airspace and to simply attempt to appropriate a huge area, but the consequences for gliding and other GA stakeholders will be extremely severe.

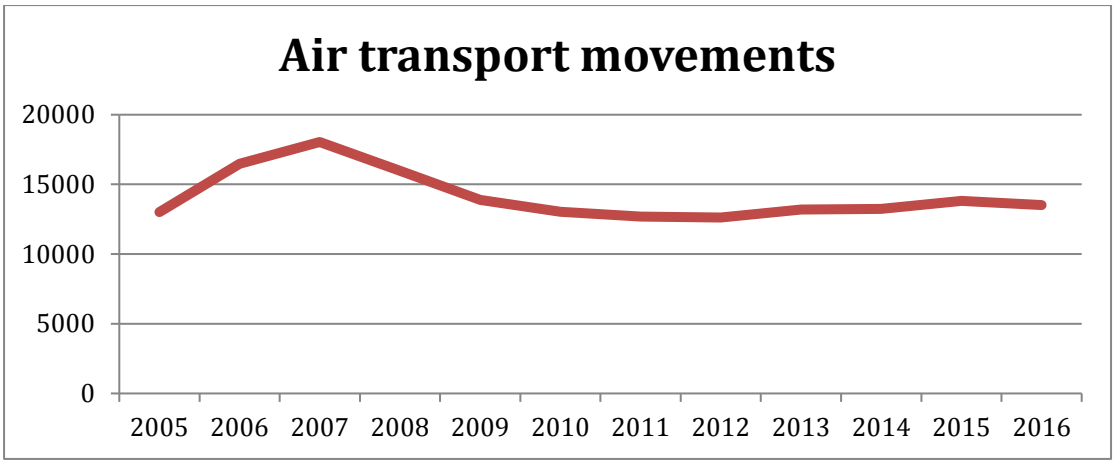
If implemented, this design would cause the unjustifiable loss of a substantial, valuable and safely used area of Class G airspace.

The BGA concludes that the proposed airspace design requires **substantial redesign.**

6. Review and analysis of Exeter airport aircraft movements

The BGA's view is that any request for controlled airspace should be predicated upon the needs of commercial air transport. General Aviation neither needs nor desires controlled airspace. The movement figures contained within the proposal do not show the true picture as they mix non-commercial movements with commercial aircraft movements, and then add confusion by referring to growth in passenger numbers. In fact the passengers are now flying on larger aircraft and *the actual number of commercial aircraft movements shows no growth over the last 12 years.*

CAA data has been researched from publicly available sources. *There is a clear conflict between Exeter airports data on traffic since 2012/2012 (a 20% difference) and the CAA's data (which shows no increase).*



Furthermore, business plan predictions of growth have proved notoriously optimistic in the past. The 2008 Exeter Airport Business Plan forecast growth from 102k passengers up to 191k passengers. In reality 2015 delivered just 82k passengers. 2016 delivered just under 85k passengers.

Passengers	
2007 actual - 1024730	
2015 actual - 821789	*2015 Forecast from 2008 business plan - 1912000*
2016 actual - 849298	

Conclusion
Despite assertions made in the proposal, CAA figures demonstrate with clarity that commercial aircraft movements are static and that there is a conflict with Exeter airports data since 2011/2012. The proposed airspace design cannot be justified on the grounds of increasing commercial traffic.

7. Analysis of existing airspace use

The BGA acknowledges that Exeter Airport wishes to enhance protection above the present level for its commercial traffic. The BGA does not believe that Exeter Airport needs controlled airspace for non-commercial traffic, nor for the LARS operation it provides in the area.

The BGA asserts that the proposed design should be revised in order to comply with the UK CAA requirement to be of the *minimum practical dimensions* and to *cause minimum disruption to aviation stakeholders*. It should also be designed from the outset *to follow the UK CAA policy on Continuous Descent Operations*. These criteria are evidently not met in the design proposed in the ACP.

Current use of local airspace by Exeter commercial traffic
At present, traffic departing from and arriving at Exeter is unencumbered by airspace constraints. The two main restrictions to traffic are the Dunkeswell / DSGC complex, 7nm to the NE, and the City of Exeter, 2nm on the centreline to the west. The Lyme Bay Danger Areas also encroach to the south east.

Traffic was observed over a randomly representative six days in April and May 2017 using the Flightradar 24 website. Traffic was seen to arrive / depart in 5 principal directions:-

1. Airways to/from the North (MAN, GLA, EDI etc) – almost exclusively turbo prop. Not a heavy traffic flow – e.g. on Apr 25 there were 6 scheduled arrivals and 6 scheduled departures).
2. Airways to/from the South (Med, Channel Isles etc).
3. To/from the East via Class G and Airways N514/L620 (LCY, NWI). Incidentally, this was the only direction from which 'genuine' CDAs were routinely noted (to R/Y 26).
4. To/from the NW via Class G (Dub, Belfast). It was noted that traffic preferred a direct routing in Class G airspace from STU, rather than routing airways via BCN. Routing through the overhead for an approach from the South of the runway was most likely from this direction.
5. To/from the SW via Class G (Scillies etc). 'Light' commercial aircraft, Twin Otters etc., which at present remain entirely within Class G airspace.

Typically, arriving traffic was frequently seen to descend very early – for example BE 492 (BEL) on 16 May was 1nm E of Upottery Airfield at 2500', around 3500' below the CDA

profile. An example for R/Y 08 was BE 304 on 19 April, range 16 nm at 3500'. Over 90% of traffic from the North were not even within 1000' of the ideal CDA profile, and excursions of more than 4000' below profile were seen. Aircraft routing to R/Y 08 from the East were seen to fly long, level, downwind legs to the south of the airport. These approaches do not compare favourably with (for example) Bristol's, where CDAs are almost exclusively flown.

The proposed airspace design would allow airways traffic from the north and south (but not traffic from the west, north-west, or east) to remain in controlled airspace throughout. It would also allow aircraft to start their descents very early and fly level segments. Such practices are *very wasteful of airspace*, very *poor for noise abatement* and, significantly for gliding and other GA traffic, *cause maximum disruption for other airspace stakeholders*.

In discussion with Exeter airport, it has become apparent that they too have concerns about the way some of their commercial airline pilots use the airspace, but have had limited success in persuading them to comply with best practice. Appropriate practices should be enforced by those running the airport. It is completely unacceptable to accommodate those practices in the airspace design to the detriment of GA users.

The dimensions at the centreline and at either side of the centreline also appear to be drawn around the current RNAV procedure, which appears to be "putting the cart before the horse". The RNAV procedures should be adapted to follow best practice, and to minimise the disruption to other airspace users in whatever design emerges.

8. BGA proposed revised airspace design

The BGA notes that RMZ/RMA's are commonly utilised in most European countries and are being deployed in the UK as a mitigation that supports a known environment where required. The level of commercial air transport traffic at Exeter indicates that an RMZ/RMA would be a proportionate response to Exeter airports current concerns.

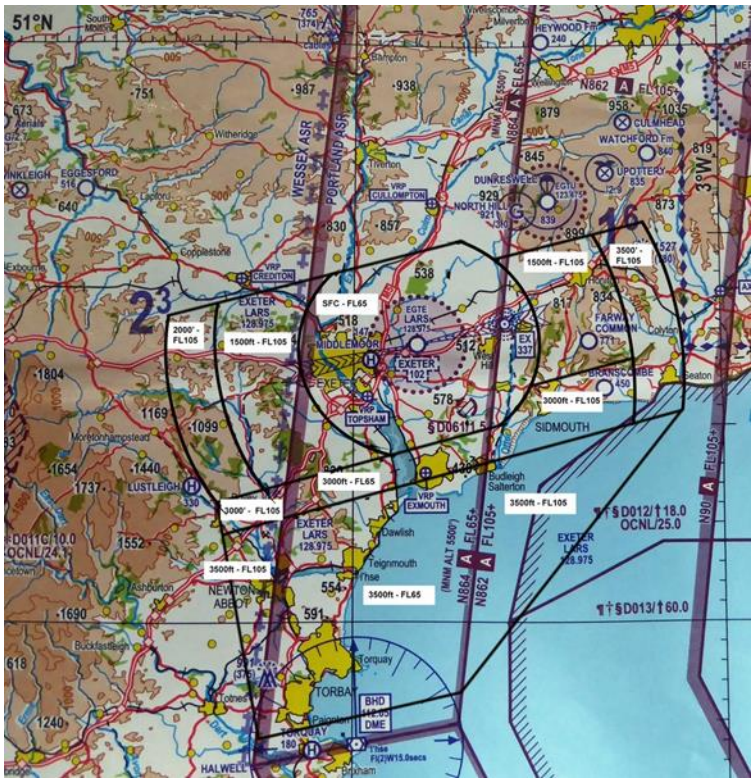
The Exeter consultation document states as a design principle; "be of minimum practical dimensions," This proposal meets the objective of minimum practical dimensions.

A desktop study was undertaken by the BGA to determine the required minimum practical dimensions of airspace for operations at Exeter. The BGA believes that the airspace design footprint should be significantly reduced. Exeter's preference, as stated, would be for release of airspace to class G on demand, perhaps similar in operation to the Bath Gap.

The following revised design utilising RMZ/RMA's should satisfy Exeter Airport and other stakeholders who could retain most of their existing rights of use. The BGA's proposed revised design;

- Is considered to be a practical and fair compromise between the needs of Exeter and other aviation stakeholders.
- Will benefit those on the ground by reducing the track miles at low level.
- Ensures that gliding and other GA traffic will not be squeezed to the north, gliding traffic will have a practical soaring area, and North Hill and Dunkeswell will remain in Class G airspace with no CAS overhead or nearby, and will not be constrained.

BGA proposed revised airspace design



Local agreement should be reached with DSGC on the use of airspace to the south of their airfield to enable the club to operate as it has done for many years in co-operation with Exeter airport as far south as the A30.

The revised design was discussed in some detail at the meeting on 25th May 2017 between Exeter Airport and the BGA, represented by the Bath, Wilts and North Dorset Gliding Club, and with a representative of DSGC present. In that meeting the BGA made it clear that its revised design conceded that some changes around Exeter airport seems sensible, but not the extensive design as proposed. In proposing its design, the BGA believes it has taken account of good practice and the reasonable needs of all stakeholders including Exeter airport.

In revising the airspace design, the following factors/assumptions were taken into consideration;

- **Industry Standard.** Exeter ATC should be able to operate under similar constraints as other airports' ATC.
- **Commercial Air Traffic Movements.** The relatively low movement rate will allow more flexibility of control.
- **Other Aviation Stakeholders.** The position and requirements of North Hill Airfield, Dunkeswell Airfield, and transit traffic were taken into account.
- **Aircraft Types.** Operation by aircraft similar to the B737, B757, B767 categories of jet transport aircraft and all turbo prop aircraft was assumed.
- **Aircraft Performance.** Conservative climb figures of 10% for B738 and 9% for DHC8 were used. This is worse than for max structural weights, anti-ice on. Take-off mass could well be performance limited due terrain and runway length at Exeter – climb gradients will be steeper in practice.

- **Descent Profile.** A conservative descent profile of 3nm/1000' was used (turbo prop descent profiles were seen to be typically 2.5nm/1000', with a minimum seen of 1.9nm/1000'). A speed limit of 250KIAS below 10000'/FL100 was assumed.
- **CDOs.** Continuous Descent Operations were assumed to be in force.
- **Noise Abatement.** The standard Exeter noise abatement procedures were assumed.
- **Wind.** The effect of strong winds both from the north and the south was considered.
- **R/W 26 Glide Slope.** The altitude at 10nm on the 3.5deg glide slope for R/W 26 was calculated to be approximately 3850'. The restriction on using the glide path beyond 8nm from the threshold was noted.
- **Buffers.** A 500' vertical buffer and a 2nm horizontal buffer were used. Alleviation from the normal horizontal buffer has been given by the UK CAA in the past. Exeter is considered to be a good candidate for alleviation due to its movement rate and position.
- **Atmospheric pressure.** A correction was made to account for high atmospheric pressure. This is expected to be redundant with the forthcoming introduction of harmonised transition altitude.
- **Multiple traffic.** Sufficient airspace is available on the south side of the airfield to allow for sequencing of multiple simultaneous departing and arriving aircraft.

Notes

In anything other than a strong northerly wind, aircraft departing to join Airway N864 are very unlikely to be able to remain in the airspace prior to reaching the base of the airway (although all of the 30+ monitored departures reached the base of the airway prior to the A361 dual carriageway abeam Tiverton). A turnout to the south will make the altitude constraint easily achievable within the airspace.

In a strong northerly wind, arrivals from the north will not have a sufficient length of base leg for a right base to R/W 26. There are, however, sufficient track miles available for a procedural approach via the EX beacon or visual or radar circuits to the south (left base).

The above constraints should be taken in the context of the low commercial movement rate of one every two hours. For the arrival case, a maximum of an extra 7 track miles is needed if joining the glide slope at 10nm. This can be planned for before top of descent. This difference is further reduced when the current typical approach to R/W 26 from the north, which joins the centreline at 12 – 14nm, is taken into account. Individual operators would remain at liberty to make tactical decisions on the day, as they currently do.

Other Considerations

The current RNAV approaches are very airspace inefficient and do not comply with the UK CAA requirement for minimum practical airspace. Unsurprisingly, they are unable to squeeze into the BGA revised design. However, if IAF waypoints SISRI and EBOBA (R/Y 08) and LETSI and NEXAN (R/Y 26) were suspended, the procedures would fit the proposed horizontal dimensions.

The holding pattern over the EX would benefit from a larger 'buffer' margin if the hold direction were to be changed to right hand or the holding pattern oriented to the south east.

With the forthcoming harmonisation of Transition Altitude (TA), the vast majority of Class D airspace are planned to use either a 5000' or a 6000' TA.

9. Closing comment

The BGA asserts that the proposed controlled airspace is unnecessary, highly disproportionate to any real or perceived need, unsafe, and highly damaging to gliding and other GA stakeholders.

Airspace is a public asset and should not be granted to operators by an independent regulator without due thought and process. The CAA acknowledges in recent CAP725 revisions, and in in its current consultation on the Airspace Change Process, the need for a fairer approach than previously applied, taking due account of all affected parties. GA has seen rapid erosion of its freedoms in recent years as successive airspace proposal have been approved which have denied access to formerly open Class G airspace. The BGA seeks a transparent, fair and proportionate solution to the real needs of both Exeter Airport and those of the gliding and wider GA community. Our comments are made in good faith to advance that objective.

The BGA has proposed a revised airspace design that we believe permits Exeter Airport to achieve all of its objectives whilst enabling other stakeholders to continue to safely use airspace, albeit while accepting some significant restrictions to meet Exeter airports needs into the foreseeable future.

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