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By email

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FOLLOW UP NOTE FOLLOWING A MEETING TO CONSIDER GLIDING NEEDS IN RESPECT OF A PROPOSED AIRSPACE CHANGE

Thanks for agreeing to meet us at Oxford airport on the 15th August 17 and for your hospitality.

As we noted at the beginning of the meeting, we are keen to understand the problem that any proposed airspace changes are expected intended to solve. We listened carefully to the comments from the Oxford team re their experiences of controlling and controller resource issues and that there are safety concerns with the existing Oxford and Brize Norton airspace, we appreciated the need to resolve historic conflict issues between Brize Norton and Oxford airport traffic, and we noted with interest the one example of a risk bearing airprox involving an aircraft in the circuit at Oxford that has apparently 'broken the camel's back'. We were surprised to hear that CAA are apparently pressing Oxford and Brize Norton to develop controlled airspace. However, despite plenty of interesting dialogue, we did not see or hear credible or substantive justification for the proposed controlled airspace. Thanks for advising that data will be made available in due course. We look forward to seeing it. Meanwhile, our impression of the proposed airspace design is that we recognise change is needed to resolve Brize Norton and Oxford conflicts but otherwise believe the design is disproportionate and driven by Oxford airports ambition to control what it frequently describes as 'it's airspace'.

We understand that as regulator the CAA's statutory duty is to ensure that UK airspace is safe, proportionate and meets the needs of all users. We would expect them to reject outright any change proposal which failed to meet those key criteria. To summarize our thoughts on these three key points:

<u>Safety</u>
It is all too easy to make subjective arguments and to look only at the problems and proposed solutions from the perspective of the traffic known best to the change proposer. It is therefore vital that real data is used and that all possible efforts are made to understand whether any potential change will improve or detract from overall aviation safety. We cannot over-emphasise that in the strategically vital and congested airspace around Oxford and

Brize it is entirely possible that more controlled airspace would reduce overall aviation safety by creating even more choke points for VFR traffic.

Proportionality
We understand that where there are continuous streams of carefully scheduled arriving CAT it is entirely appropriate to have CAS. Heathrow having Class D airspace is a good example. Similarly where CAT movements are few and other aviation flows high the granting of CAS to the CAT operator would be entirely disproportionate and other collaborative means of minimising operational problems should be explored.

Meeting Needs of all Users
For the avoidance of doubt we simply state that the proposals tabled do not meet gliding needs and if implemented would fundamentally threaten the future of our activities in the South of England.

Summary
We were disturbed to learn that you have already put months of effort into a design which would drastically affect others without properly explaining to the aviation community what you are trying to achieve and understanding other's needs. To try to help understanding of general gliding needs we have collated previously published guidance in the appendix below.

To avoid further waste of resources by any party, we encourage you to drop your current proposal and consult with other airspace users in an attempt to understand overall aviation pressures in the area with a view to collaboratively developing improved operations (which might or might not result in airspace change). You would of course have full BGA support in such an enterprise.

Without such action it would be hard to see any ACP as anything other than a commercially driven ploy seeking unilateral control of the scarce resource that is our nation's airspace.

Yours sincerely

Pete Stratten
Chief Executive Officer

APPENDIX – GLIDING INFORMATION

The Basics
At a basic level, flying a glider is just like flying any other light aircraft, albeit with the power control locked somewhere near idling speed. The flying controls are fundamentally the same. With high performance, low drag, wings gliders can fly for several minutes and go a long way before proximity to the ground becomes an urgent problem, but sooner or later gravity will dictate a landing unless rising air is found see “Soaring” below.

Soaring
The unpowered pilot can achieve a lot. Different individual flights in the UK have been made above 38,000ft, covering more than 1,500 km in a day, exceeding average speeds of 100kts,

and exceeding 12hrs in duration. Modern efficient gliders have helped, but even the very best glider can only achieve useful performance if it spends time flying in air which is rising faster than its natural descent rate. Laymen and power pilots seldom realise just how much vertical movement there is in the atmosphere, it is not something that can be seen directly but a practised eye can read much from obsessively studying clouds and by thinking about weather systems and how air flows over the surface of the earth.

The soaring pilot operates in what others might best understand as a permanent state of engine failure. Second only to the basic needs of flying the aircraft the soaring pilot's priority is to find rising air and use it to gain or maintain height to prolong the flight (or alternatively assess and select a suitable site and then execute an out-landing). Over and above simply flying the glider, the pilot's workload is thus to continually assess:

- How high am I and over what sort of terrain?
- If I can't find rising air where can I land safely?
- If I have enough height to reach landable terrain further on how fast should I fly (faster gets further quicker but fast means more drag so have to find rising air sooner and spend more time in it)
- Just where is (the best) rising air looking at clouds, birds, other gliders circling ahead, is there wind blowing onto an upslope?
- How much is it worth deviating from the straight line track to use a more promising thermal? It is often faster to deviate by up to 30 degrees if better climb rates can be found. And if conditions are weak it will be worthwhile to deviate by any amount just to stay airborne.

By its very nature all of this activity requires almost total concentration on looking outside the glider. It also means that gliders will tend to aim for the best rising air. Joining a glider (or a whole gaggle of gliders) already circling in good lift is often easier than finding and then centring on rising air by yourself. So gliders aren't distributed randomly though all available airspace they tend to congregate in the best (rising) air. More than in any other form of aviation the future success of a flight depends directly on what can be seen outside the cockpit; and at an early stage in training soaring pilots become skilled and accustomed to circling close to other gliders while still avoiding contact with each other. Nonetheless the process of joining a thermal and then circling closely but safely with other gliders deserves the full concentration of every pilot, no matter how experienced they may be.

<u>Airspace</u>

In addition to staying airborne and attempting to achieve cross country flight, it is of course essential to avoid infringing controlled airspace. The prevalence and complexity of UK airspace means that trying to compare visible ground features with a paper map would demand far too much head-in-cockpit time. So UK gliders invariably carry GPS driven moving maps with clearly delineated CAS boundaries and audible alarms set to warn some minutes before reaching CAS. All competitive glider flying requires scoring by the submission of secure data-logger flight information. These are scrutinised and draconian penalties applied to any infringement, even if only by a few metres or for a few seconds duration. This approach means that glider infringements are few; it also means that controllers may be un-nerved by gliders racing up to CAS and turning away at the last moment or routing just outside CAS
with the benefit of instant accurate mapping.

While it is legally possible for gliders to request permission to enter Class D airspace this rarely happens. Crossing any significant distance cannot be guaranteed in a straight line; it might be necessary to deviate or to regain height by circling in a thermal. A controller might

at the outset request an orbit or ninety degree turn for the purposes of identification, which could precipitate a loss of height before the requested track was authorised. The probability of permission not being granted may not be great, but the consequences would ruin an entire soaring flight and result in an otherwise unnecessary land-out. The existence of CAS is therefore seen as an impenetrable barrier to cross country soaring flight.

Choke points

Controlled airspace growth results in unfortunate knock on effects well beyond the immediate CAS boundary. The CAA's Airspace and Safety Initiative commissioned QinetiQ to model traffic flows in order to enhance safety of airspace users operating outside controlled airspace. The resulting report noted that "… any changes to the size and shape of controlled airspace will result in an equal and opposite change to the size and shape of uncontrolled airspace… ", and "To properly assess such changes, the level of traffic in both controlled and uncontrolled (i.e. Class G) airspace needs to be understood". The study assumed that all gliders, >80% of microlights, and 70% of light single aircraft would route around CAS rather than transit it. Glider cross country flights are usually planned to where possible avoid choke points. Unfortunately, glider pilots and many other GA pilots are finding themselves being squeezed into ever smaller areas of uncontrolled airspace.

Collision Avoidance

The risks to glider pilots are well known and extensive statistical records allow us to identify and manage them. For example, recent work on winch launching has seen a dramatic reduction in those accidents. Other significant risks include low level stalling/spinning and out-landing accidents. Further down the statistical list of accidents comes mid-air collision. The nature of airspace and the necessary seeking out of rising air means that, once away from the home airfield, the dominant mid-air collision risk is glider to glider. We understand that a similar theme exists for light powered aircraft. In the European Alps, where snowy backgrounds made the visual acquisition of white gliders more difficult, a simple GPS device was designed to warn individual gliders of the presence of other equipped gliders. This device – Flarm - has proved extremely popular and has been voluntarily fitted by the vast majority of cross-country flying glider pilots in the UK. Because the device gives pilots direct, immediate and pertinent information they value it and justify its purchase as a significant aid to visual look-out. The comparative experience of talking to well-meaning ATC who may call up a busy pilot trying to soar away from low levels with information about a new QNH or a powered aircraft a mile away is not a good one.

An upgraded device "PowerFlarm" is also now being fitted to a variety of powered aircraft; it can easily and cheaply be fitted to as carry on equipment to commercial aircraft and will show Flarm equipped aircraft on a simple display. A further development is that live tracking of glider Flarm data is freely available on the internet. Any interested airfield can therefore monitor local gliding activity at the touch of a button. No doubt further developments, limited only by users' imagination, will become available in future.

Club operations

Club operations support cross country flying and rely on gliding flight training activity as a core activity.

There are 80 gliding clubs with 7000 flying members operating some 2300 aircraft in the UK that with the supporting industry form part of and contribute to the significant economic contribution to the UK made by GA. Gliding clubs are independently run small to medium sized, not for profit, volunteer led enterprises. They have to be able to deliver the activity required of their members in order to survive. This includes all aspects of gliding including

local and cross country flying. Most clubs operate every weekend throughout the year. A large number of clubs operate full time during the months April through to September. It is quite normal for a club to carry out around 200 movements per day.

As described above, gliders can fly significant distances using rising air. In a training environment where the glider may simply be towed or winch launched to say 2000', the local aircraft will be operating in an area a few miles upwind of the airfield. Where rising air is available, it is utilised during training to both extend flight times and to ensure that glider pilots are trained properly in the environment in which they will operate in future. Ensuring continued access to uncontrolled airspace and connectivity between the airspace used overhead and adjacent to a club operation and the wider cross country airspace is vitally important to the continued success of gliding as an air sport and recreational activity.

The point about operating upwind of the airfield is critically important. As gliders, and in particular lower performing training gliders, do not make progress into wind as effectively as they do when flying downwind, they must, rather than prefer, to operate upwind of their operating airfield. On arrival at their operating airfield, all gliders fly a standardised (gliding) visual circuit that starts at around 700' agl.

Gliding operations do not require air traffic control or radio operator support, as indeed is the case with GA operations across most of Europe.

Further information about gliding operations is contained in AIC Y083/2011.

We hope this appendix is helpful. We remain available to answer any questions you might have.

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