Design Principles

Introduction and Purpose of this Document
Submission was made to the Civil Aviation Authority (CAA) identifying the issues raised in the statement of need by The Gliding Centre, Husbands Bosworth in October 2018. The CAA agreed that the Gliding Centre should take this forward as a formal Airspace Change Proposal (ACP) under the current CAP 1616 procedure. In line with CAP 1616 the ACP is now at Stage 1b DEFINE.

The purpose of this document is to engage with the stakeholders impacted by the ACP to establish the design principles that should be applied to any resulting proposal(s).

Statement of Need
The following is an extract from the Statement of Need submitted to the CAA.

During 2016 at Husbands Bosworth we had two airproxes & a fatal mid-air collision. There have been many airproxes in the past, but this was the first mid-air involving aircraft & glider contact. The wire launch airproxes are particularly disturbing, it is only a matter of time before we collect a passing aircraft / helicopter with a winch cable. The report by the P1 in the first airprox in 2016 is worrying in the fact he knew he was passing close by to Husbands Bosworth but chose not to reroute as it was just a gliding club. Despite Husbands Bosworth being marked on charts as Intensive Gliding activity & cables 3.6. It is routinely being ignored. It was good fortune that despite the glider pilots’ high nose up attitude, he saw the Cessna & abandoned the winch launch in time putting himself at risk by now having to conduct a launch failure recovery manoeuvre.

At Husbands Bosworth we have our own air / ground radio frequency 127.580mhz & all tugs, motor glider & majority of gliders carry FLARM. After Lasham we are the next busiest gliding club in the UK. It is a busy training, aerobatics & cross-country club. Gliders are often towed to 4000ft agl 4505ft amsl for aerobatics & spin training. We hold two gliding competitions a year, one a National the other a Regional competition with up to 60 competitors taking part. Plus, around 8 tugs that launch them all in under an hour. Husbands Bosworth has been awarded the Women’s World Gliding Championships in 2021. We did host the World Junior Championships back in 2005.
Background to Gliding

This section is included to ensure that there is a common understanding of gliding in general and of cross-country flying.

Whilst local soaring for members and providing gliding experiences for visitors are facets of a gliding club’s work, the major portion is to develop current and new pilots to emulate or better these performances. The goal of all these glider pilots is to fly cross-country.

The principles of gliding are simple. The pilot is flying an aircraft that is constantly descending and utilises rising air, whether from thermals, ridges or lee-wave, to remain airborne. At any time, a glider is around ten minutes away from a potential landing unless the pilot can find rising air to climb. The concentration required to utilise rising air and, at the same time, maintain constant look out at the surrounding sky for other aircraft cannot be underestimated.

Gliding is a technically demanding, environmentally friendly, mentally challenging air sport. It is recognised as a pathway to careers in the UK aviation and aerospace sectors and is a significant part of General Aviation’s (GA’s) overall economic contribution to the UK.

Glider launching at Husbands Bosworth is achieved by either aircraft tug launch or cable launch.

Purpose of this ACP

The purpose of this ACP is to address the issues associated with what was stated above in the Statement of Need. The ACP is looking to establish a safe operating area for all airspace users in the vicinity of Husbands Bosworth airfield. It is recognised that all measures have been taken to increase awareness of Husbands Bosworth Gliding site on both the 1:500k and 1:250k VFR charts, however the Gliding Centre is still experiencing overflights at conflicting altitudes and airproxes during glider launches.

ACP Process

In accordance with CAP 1616 this ACP was initiated in Oct 18 by the submission of a DAP 1916 (Statement of Need) the main reason for the airspace change being in response to several safety incidents. This was followed up by an assessment meeting on 23 Jan 19 which was attended by the sponsor and representatives from the CAA. It was agreed at the meeting that the sponsor could continue with this as an airspace change and it was given an indicative Level 1 ACP status. With publication of the minutes, the briefing materials and the Statement of Need on the CAA Portal, this completed Stage 1a of the CAP 1616 ACP process.

The second step (Step 1b) of Stage 1 is for the change sponsor to identify and communicate the design principles to be applied to the airspace changes design. An important part of Step 1b is for the design principles to be drawn up through discussion between the change sponsor and affected stakeholders at this early stage in the process. The aim of this engagement is for there to be a good level of understanding by the change sponsor as to what considerations are important to affected stakeholders. This is a key stage which aims to prevent misunderstanding or later disagreements by facilitating conversations and will hopefully make the later consultation phase (Stage 3) more constructive. A list of draft design principles is given below for affected stakeholder comments, a table is provided at the end of this document for these comments. There is also the opportunity at this stage for the affected stakeholders to add to these design principles for the change sponsor to consider.
The design principles and the outcome of the engagement activity must be submitted to the CAA for review. The change sponsor’s finalised design principles provide a framework or reference point that it will use when drawing up, and later considering and comparing, all the options open to it to address the airspace issue or opportunity that it has identified and in respect of which it wishes to propose an airspace change.

**Draft Design Principles**

1. Must achieve appropriate and acceptable levels of flight safety for all airspace users. *(Safety)*

2. Must significantly help mitigate the risk of mid-air/launch cable collision with other airspace users. *(Safety)*

3. Must not have any change on the distribution of aircraft, therefore, no noticeable change to people on the ground. *(Community/Environmental)*

4. Must ensure environmental impact is unchanged from the current level. *(Environmental)*

5. No change to airspace classification, airspace should still be accessible to all airspace users. *(Technical)*

6. Must not hinder current operations at Husbands Bosworth which includes The Gliding Centre, Police Operations and other users on the south side of the airfield. *(Operational)*

7. Must have minimal financial impact to The Gliding Centre and no financial implications to the other users of Husbands Bosworth airfield or any other airspace users. *(Financial)*

8. The airspace change should consider technological advances to help mitigate the safety risk. *(Technical)*
Please tick the appropriate boxes below & feel free to add any comments or suggestions with your reply to The Gliding Centre.

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<th>Neither agree or disagree</th>
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