

1 Review of Design Principles – Responses of Devon and Somerset Gliding Club (DSGC) at North Hill Airfield.

1.1 Your Responses

Please complete Table 1 and Table 2 below in line with the information provided in Section 1. Please use as much space as you require, the size of the response box will expand as you type your response.

	Design Principle	Rationale	Do you agree this is a Design Principle? (Yes or No)	How would you rank this Design Principle as a priority? (1-16 or 0)
DP1	Any new airspace should not restrict flying operations in or around the airspace	The lateral or vertical (including base heights) of any new airspace should not jeopardise the safe operation of all types of aviation traffic.	Yes	1
<p>DSGC Comments on DP1:</p> <p>DSGC agrees that critical stages of flight should be protected. EDAL should seek to protect the final approach and climb out paths, using the minimum volumes of uncomplicated airspace to keep such paths as high and narrow as possible, using new technology and methodologies, whilst taking account of non-EDAL aviation users needs.</p>				
DP2	Airspace should be designed to minimise the impact of noise	One of the Government’s key environmental objectives is to limit and, where possible, reduce the number of people in the UK significantly affected by adverse impacts from aircraft noise.	Yes	14

	Design Principle	Rationale	Do you agree this is a Design Principle? (Yes or No)	How would you rank this Design Principle as a priority? (1-16 or 0)
<p>DSGC Comments on DP 2:</p> <p>(1) If CAS is proposed to be introduced beyond the critical stages of flight, this Design Principle can be achieved by use of multiple PBN routes as highlighted in the Airspace Modernisation Strategy (AMS) paragraphs 4.24 – 4.30. This permits noise to be dispersed/'shared'.</p> <p>(2) Within Exeter's low-altitude CAT footprint (up to 7000 feet), its transit heights in relation to population centres, and its relatively low traffic volumes, have little noise impact. For this reason DSGC does not consider the issue of noise to be a high priority.</p> <p>(3) EDAL should be aware that by the introduction of new CAS beyond the critical stages of flight, new flight patterns for non-EDAL GA traffic are likely to be created with new noise impacts.</p>				
DP3	Any new airspace should not create funnelling or choke points for other airspace users	Airspace should allow transit aircraft to safely bypass without creating bottlenecks or pinch points over geographical features or high ground that could create a greater environmental impact of noise or increasing the danger of a mid-air collision.	Yes	1
<p>DSGC Comments on DP3:</p> <p>(1) EDAL should be aware that any reduction in the height available to non-EDAL aviation traffic, and particularly gliders, outside the area of critical stages of flight, significantly reduces both the safety and amenity of existing glider activities.</p> <p>(2) DSGC is concerned that funnelling and choke points, both laterally and vertically, is a significant safety issue and will increase noise in those areas</p>				

	Design Principle	Rationale	Do you agree this is a Design Principle? (Yes or No)	How would you rank this Design Principle as a priority? (1-16 or 0)
DP4	Airspace should connect to the airways structure to protect Commercial Air Transport	Commercial Air Transport should remain inside Controlled Airspace at all times during arrival at and departure from Exeter Airport. This protection will lower the risk to commercial operations, whilst introducing predictability of tracks therefore reducing track miles flown and minimising emissions.	Yes	12
<p>DSGC Comments on DP4:</p> <p>It is the view of DSGC that a MATZ-style ATZ would provide the level of protection for CAT appropriate to the existing identified problems, without undue impact on other aviation stakeholders.</p>				
DP5	Any new airspace should use the minimum volume necessary	The volume of new airspace should be the minimum volume consistent with safe and efficient air traffic operations and not block the transit of other aviation traffic.	Yes	1
<p>DSGC Comments on DP5:</p> <p>The previously proposed 2017 ACP design was clearly unrealistic in the volume and complexity, DSGC request that any new airspace design will be more compatible with the needs of other aviation users.</p>				

	Design Principle	Rationale	Do you agree this is a Design Principle? (Yes or No)	How would you rank this Design Principle as a priority? (1-16 or 0)
DP6	Any new airspace should facilitate continuous climb and descent profiles	Steeper and continuous climbs and descents will introduce environmental as well as flight efficiency benefits. The impact of noise on communities will be reduced and will also allow the execution of an optimal flight profile for aircraft, leading to a benefit in fuel use and emissions. Routes will become more consistent and predictable which could lead to a minimisation of controlled airspace footprint.	Yes	12
<p>DSGC Comments on DP6:</p> <ol style="list-style-type: none"> 1. Unless the change sponsor is proposing to seek a massive footprint of CAS similar to the 2017 ACP which was refused, then it is understood that these CDAs and CCDs would need to be facilitated by new designated IFPs (in particular, the introduction of SIDs and STARs) within CAS. This would imply changes to comparatively ad hoc current routing arrangements arising from tactical intervention, which results in a wide dispersion of flight tracks. 2. The above Rationale for DP6 states <i>“Routes will become more consistent and predictable which could lead to a minimisation of controlled airspace footprint”</i>. This clearly indicates some adjustment of the routing of CAT. 3. Routing changes were not included in the Statement of Need, were not mentioned as required in the Notes of the CAA Assessment Meeting, and new IAPs have been (initially at least) ruled out by paragraph 3.3 of Design Principles Questionnaire. 4. DSGC is therefore unclear how CDAs and CCDs can be introduced within the terms of the Statement of Need without replicating the 2017 ACP - which was unacceptable. 				
DP7	Any new airspace should allow equitable access to all airspace users	Any regulatory change or airspace amendment must continue to facilitate access to the airspace for all aviation users and to implement airspace that will work for everyone.	Yes	1

	Design Principle	Rationale	Do you agree this is a Design Principle? (Yes or No)	How would you rank this Design Principle as a priority? (1-16 or 0)
<p>DSGC Comments on DP7:</p> <p>DSGC believes this design principle is fundamental to any airspace change.</p>				
DP8	Consider the Flexible Use of Airspace	Any proposal for a revised airspace structure should be adaptable to minimise the impact on other aviation operators. Only having airspace activated in accordance with requirements is encouraged, providing flexibility for the access of other aviation.	Yes	1
<p>DSGC Comments on DP8:</p> <ol style="list-style-type: none"> 1. It should be noted that the Report of The Lord Kirkhope Inquiry into Airspace change for the All Party Parliamentary Group has recommended the CAA should implement a more flexible approach to airspace design, including for example the power of ‘turning on and off’ Airspace depending on the time of day and the time of year. 2. This recommendation from the Inquiry effectively gives endorsement to DSGC’s proposal for FUA set out in its written response to the Design Principles Questionnaire, as submitted in May 2019. 3. The word "Consider" in Design Principle 8 should be removed. 				
DP9	New airspace should protect critical stages of flight	The final approach is the most critical portion of flight, with Commercial Air Transport aircraft being slow and less manoeuvrable.	Yes	1

	Design Principle	Rationale	Do you agree this is a Design Principle? (Yes or No)	How would you rank this Design Principle as a priority? (1-16 or 0)
<p>DSGC Comments on DP9:</p> <p>DSGC agrees that critical stages of flight should be protected. EDAL should seek to protect the final approach and climb out paths, using the minimum volumes of uncomplicated airspace to keep such paths as high and narrow as possible, using new technology and methodologies, whilst taking account of non-EDAL aviation users needs.</p>				
DP10	Create a known traffic environment	There is an increased risk on busy days to Commercial Air Transport due to the large number of aircraft operating outside controlled airspace due to the increased separation requirements against unknown, potentially non-transponding traffic.	Yes	16
<p>DSGC Comments on DP10:</p> <p>DSGC agrees that critical stages of flight should be protected. EDAL should seek to protect the final approach and climb out paths, using the minimum volumes of uncomplicated airspace to keep such paths as high and narrow as possible, using new technology and methodologies, whilst taking account of non-EDAL aviation users needs.</p>				
DP11	Designs should consider areas of local tranquillity	Airspace change and management can impact on the natural environment, and on people's experience of the natural environment. Visitors seek these natural and peaceful surroundings to escape the impacts of urbanisation, including increased aviation traffic and resultant noise.	Yes	16
<p>DSGC Comments on DP 11:</p> <p>Within Exeter's low-altitude (up to 7000 feet) CAT footprint, its transit heights in relation to population centres, and its relatively low traffic volumes, have little noise impact.</p>				

	Design Principle	Rationale	Do you agree this is a Design Principle? (Yes or No)	How would you rank this Design Principle as a priority? (1-16 or 0)
DP12	Accommodate traffic with limited/no Radio Capability	The ability for aircraft to continue to operate in the local area without the necessity to rely on a radio capability should be considered.	Yes	1
DSGC Comments on DP12: <p style="text-align: center;">The ability for non-EDAL aircraft to continue to operate in the local area without the necessity to rely on a radio capability should be fundamental to an airspace design change.</p>				
DP13	Accommodate traffic without Transponder Capability	The ability for aircraft to continue to operate in the local area without the necessity to rely on a transponder capability should be considered.	Yes	1
DSGC Comments on DP13: <p style="text-align: center;">The ability for non-EDAL aircraft to continue to operate in the local area without the necessity to rely on a transponder capability should be fundamental to an airspace design change.</p>				
DP14	Any new CAS should be proportionate to the requirement	Any new controlled airspace should be no bigger than required to ensure safety is not compromised for all airspace users.	Yes	1
DSGC Comments on DP14: <p style="text-align: center;">The previously proposed 2017 ACP design was clearly unrealistic in the volume and complexity, DSGC request that any new airspace design will be more compatible with the needs of other aviation users.</p>				

	Design Principle	Rationale	Do you agree this is a Design Principle? (Yes or No)	How would you rank this Design Principle as a priority? (1-16 or 0)
DP15	Any new airspace should use the minimum categorisation necessary	All categories of airspace should be considered so that the least restrictive categorisation of airspace necessary to ensure safety is not compromised for all airspace users.	Yes	1
DSGC Comments on DP15: The previously proposed 2017 ACP design was clearly unrealistic in the volume and complexity, DSGC request that any new airspace design will be more compatible with the needs of other aviation users.				
DP16	Any new airspace should be as uncomplicated as possible	The design of any new airspace should not be so complex that it will lead to more infractions from other airspace users.	Yes	1
DSGC Comments on DP16: The previously proposed 2017 ACP design airspace was very complicated in terms of base heights. The number of different areas and the differing step heights cause a major problem to those operating outside of the airspace, increasing the likelihood of infringement., DSGC request that any new airspace design will be more compatible with the needs of other aviation users.				

Table 1 – Design Principle Prioritisation

<p>Do you agree that the list of Design Principles captures the specific areas of concern you have articulated in either a questionnaire or during participation in one of the focus groups?</p>
<p>Comments: Yes, provided our comments are read in conjunction with these Design Principles and the Rationale.</p>

Are there other Design Principles not included in the list that you feel should be considered as candidates for the final shortlist? If so, please provide your comments.

Comments:

DSGC believes that from the viewpoint of aviation stakeholders, the principles which should guide any changes proposed to local airspace are set out in the appropriate legislative and industry guidance, as highlighted below. These principles should therefore guide the development and assessment of options.

1. **The statutory framework:** the established hierarchy of principles and priorities set out in the Transport Act 2000 Section 70, including footnotes 1 – 3. (See <https://www.caa.co.uk/Commercial-industry/Airspace/Airspace-change/Legislative-framework-to-airspace-change/>) .
2. Compliance with all other statutory and CAA guidance on changes to and the modernisation of airspace, including and subject to the following provisions.
3. “The principle that the least restrictive categorisation of airspace should be the norm in UK airspace design, with more restrictive classifications only being established where necessary when the safety need is clearly demonstrated”. (Taken from SARG’s Policy Statement dated 14 August 2015 for Radio Mandatory Zones and Transponder Mandatory Zones, paragraph 1.2).
4. “Any airspace design is to use the minimum volume of CAS, consistent with safe and efficient air traffic operations”. (So as to comply with the relevant Airspace Modernisation Strategy Objective/parameter, see AMS page 23).
5. “Airspace developments at lower altitudes must...consider the need to safely integrate other airspace users within the airport vicinity, including General Aviation...” (AMS paragraph 4.24) with the related principle that “airspace modernisation should satisfy the requirements of operators and owners of all classes of aircraft across the commercial, General Aviation and military sectors”. (AMS paragraph 3.5).
6. **Additional Note:** DSGC feels that airspace structures in terms of zones and CTAs should not be overly complicated. This principle appears to have had backing from NATS during the 2017 ACP process. [“NATS raised concerns relating to the airspace design which was assessed as potentially complicating Air Traffic Management (ATM) arrangements in the area”: , quote from Consultations Report, Executive Summary: this was understood to relate to the number, size and varying bases of the CTAs].

Summary

The principles set out above enable a subsequent test to be applied to the preferred option which is proposed to form an ACP submission:

- (a) Has the safety need for any change from the status quo been clearly demonstrated? (So as to comply with the SARG principle referred above).
- (b) Do the proposals constitute the least restrictive categorisation of airspace required to meet the demonstrated need? (Ditto).
- (c) In the event of a demonstrable need for controlled airspace, has the change sponsor clearly demonstrated that its proposal will...“use the minimum volume of CAS, consistent with safe and efficient air traffic operations?” (So as to comply with the relevant AMS Objective/parameter, see AMS page 23).

