Focus Group 1 - Minutes

Project Title	Exeter Airport Airspace Change Proposal
Client	[redacted]
Purpose of Meeting	Design Principles Focus Group – Aviation Stakeholders
Date of Meeting	13 June 2019
Held at	Exeter Airport Conference Room
Present	[redacted], Exeter Airport Consultative Committee <ACC> [redacted] Devon & Somerset Flight Training <DSFT> [redacted] Flybe <FB> [redacted] Airspace Change Organisation Group <ACOG> [redacted] Devon & Somerset Gliding Club <DSGC> [redacted] Devon & Somerset Gliding Club <DSGC> [redacted] Devon & Somerset Flight Training <DSFT> [redacted] NATS <NATS> [redacted] Capital Air Ambulance <AA> [redacted] Devon & Somerset Gliding Club <DSGC> [redacted] Devon Strut Light Aircraft Association <DS> [redacted] Devon Strut Light Aircraft Association <DS> [redacted] SATCO Plymouth Military Radar <PLY> [redacted] Plymouth Military Radar <PLY> [redacted] British Gliding Association (BGA)/Bath, Wilts & North Dorset Gliding Club <BGA> [redacted] Exeter Airport Operations Director <EDAL> [redacted] Exeter Airport Air Traffic Services Manager <EDAL> [redacted] Exeter Airport Management Systems Coordinator <EDAL> [redacted] Osprey CSL <OSP> [redacted] Osprey CSL <OSP>
Osprey Reference	71189/017
Issue	Issue 1 Draft B

Glossary

Acronym	Meaning
ACC	Airport Consultative Committee
ACP	Airspace Change Proposal
AMS	Airspace Modernisation Strategy
ATC	Air Traffic Control
BGA	British Gliding Association
CAA	Civil Aviation Authority
CAP	Civil Aviation Publication
CAS	Controlled Airspace
CAT	Commercial Air Transport
CDA	Continuous Descent Approach
CTZ	Control Zone
ft	feet
GA	General Aviation
GNSS <PLY>	Global Navigation Satellite System
IFR	Instrument Flight Rules
Kts	Knots
MAC	Mid-Air Collision
MATZ	Military Air Traffic Zone
nm	nautical mile
PBN	Performance Based Navigation
RMZ	Radio Mandatory Zone
RNAS	Royal Naval Air Station

Acronym	Meaning
SID	Standard Instrument Departure
STAR	Standard Instrument Arrival
TCAS	Traffic Collision Avoidance System
TMZ	Transponder mandatory Zone
VFR	Visual Flight Rules

Meeting Summary

Item	Action
Opening introductions [redacted] <EDAL> welcomed everyone and thanked them for their attendance. He then provided an introduction which described the purpose of the Focus Group and outlined the current operations at Exeter Airport. [redacted] <EDAL> then described the reasons why Exeter Airport is seeking an airspace change before [redacted] <OSP> provided further information on the Civil Aviation Publication (CAP) 1616 process and the requirement for Design Principles.	
Appropriateness of Level [redacted]<OSP> described the requirement to scale the process by assigning a level to the Airspace Change Proposal (ACP). She stated that the Civil Aviation Authority (CAA) considered that this ACP would be Level 1. [redacted] <OSP> gave the attendees the chance to express their opinion on the appropriateness of the level chosen. There were no disagreements to the consideration that this ACP would be a Level 1.	
Open Forum Discussion [redacted] <PLY> asked whether the airport were looking to introduce Class D airspace or something else. [redacted]<OSP> replied that at this stage, anything is possible. [redacted]<PLY> then asked if the aim was to protect aircraft in the critical stages of flight, up to about 10 miles from the runway. [redacted]<OSP> explained that Exeter Airport would have their own Design Principles for the airspace and asked the stakeholders what they think it should be, from no change to what currently is in place to the opposite end of the scale. The aim was to look for everything in between. [redacted]<PLY> stated that flying under Instrument Flight Rules (IFR) in Class G airspace is 'bonkers' so some sort of protection is required. [redacted] <FB> stated that Commercial Air Transport (CAT) would like protection. The UK pretty much stands alone in Europe with airports that have no protection for CAT and that some sort of bubble of protection is required. There are higher areas of risk at places like Exeter Airport for CAT. [redacted] <DSGC> stated that they had provided options to Exeter Airport during the previous ACP and asked for guarantees that the airport would listen this time round.	

Item	Action
[redacted]<OSP> replied that their views would be listened to as it was part of the two-way engagement process. [redacted] <DSGC> stated that they would be happy for some Controlled Airspace (CAS) but at the lower end of the scale and that the rest of the flying relations still need airspace that they can use freely. A blanket of CAS over half of Devon would have 'killed' the Devon & Somerset Gliding Club. Any new CAS should be proportionate. **Design Principle: Any new CAS should be proportionate to the requirement** [redacted] <DS> agreed with the concept of linking the airport to the en-route structure but that any designs must not be restrictive to GA operating around it. He has seen first hand the problems that can arise and recognises the need to ensure CAT is protected and that the aim should be to create a known traffic environment. This should be balanced and that creating airspace at 1,500 ft over another airfield would infringe on the safety of General Aviation (GA) traffic beneath. **Design Principle: Create a known traffic environment** [redacted] <PLY> asked whether Exeter Airport had engaged with local GA clubs about flying in the local area and the issues around unknown traffic. [redacted]<EDAL> replied that they had engaged and had made visits to local clubs in the past. They haven't been able to talk to everybody and those that they had spoken to generally talked to Exeter Air Traffic Control (ATC) anyway. [redacted] <BGA> stated that a lot of work had already been done on the previous ACP and asked what would happen to that previous work. [redacted]<OSP> replied that as this ACP was under the new process it was a new start. [redacted] <NATS> added that the CAP 1616 process was so much more than the old CAP 725 process and that the airport was required to keep a log of all engagement that it undertakes and if the correct engagement process had not been carried out, the airport would not be allowed to proceed through the Gateways. This was the first of many engagement meetings as part of the new process and that any previous work could be submitted again and it would be recorded as so. [redacted]<OSP> added that some of the options may be part acceptable or not acceptable to some parties and that the aim was to add to the possible options before whittling down the list to a set of options that could be assessed from a safety and environmental point of view. [redacted]<ACC> gave some generic facts about the flight profiles of CAT, including climb and descent angles, radius of turn and distances for acceleration and deceleration, and stated that in terms of airspace planning, this information could be used as a starting point when thinking about the design for airspace. He also commented that people should think about the plans for the future and that CAT want Continuous Descent Approaches	

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(CDA). He recognised that there will be people who want more CAS and those that want less, and it will be a balance. [redacted]<DS> stated that you could draw the flight profiles on a chart and use that as a start position for creating the airspace and that there would be no point considering both ends of the spectrum. Any new airspace has to be equitable and there will be different aircraft types that will need accommodating. [redacted] <PLY> stated that a Control Zone (CTZ) lozenge would be a good place to start. [redacted]<NATS> reminded the audience that this was Step 1b of the process and it was about getting Design Principles, not about the designs themselves. He stated that the whole point of the process is that there will be possible conflicting opinions but these are needed to prove the point. The Design Principles may help the GA community or may help CAT. [redacted]<BGA> stated that not everyone agrees that Class D airspace is required. Gliders do not operate well in Class D and the requirement to be under control in Class D airspace is not compatible with the gliding community. [redacted]<DS> commented that there needs to be a common ground so that everyone can enjoy the airspace. [redacted]<PLY> stated that safety has to be the paramount consideration and that if there was a mid-air collision (MAC) in the local area, the area around Exeter would never be the same again. [redacted]<FB> commented on the use of Global Navigation Satellite Systems (GNSS) and Performance Based Navigation (PBN) and how it adds predictability when used by high momentum aircraft. GA would know where the larger aircraft will be as they can follow a path very accurately. It adds an element of predictability but also helps with the un-predictability of others. [redacted]<PLY> commented that it would help to refine the airspace around other users and asked whether a Transponder Mandatory Zone (TMZ) or Radio Mandatory Zone (RMZ) would work for gliders. [redacted] <DSGC> and[redacted] <DSGC> both replied that a TMZ isn't suitable for gliders as not all gliders are capable of carrying a transponder due to available panel space, weight and power requirements. [redacted]<FB> stated that electronic conspicuity is important and the Traffic Collision Avoidance System (TCAS) is a valuable tool and is vital to operations around Exeter Airport where there is no CAS and they have to rely on primary radar to show the traffic that's around. The TMZ/RMZ solution is very limited in how much traffic it can take and doesn't work in a high traffic environment. [redacted] <DSGC> asked if the airport could consider the Flexible Use of Airspace. Gliders have specific hours of operation and don't fly at night. [redacted] <DSGC> added that as an example, in Austria they can swap airspace classification	

Item	Action
from Class D to Class G purely on a radio request. If they had something that switches, they could work with it. **Design Principle: Consider the Flexible Use of Airspace** [redacted] <DSGC> asked whether there was a plan to upgrade the radar so that the required separation minima could be reduced from 5 nm to 3 nm. [redacted]<EDAL> stated that upgrades should be completed later this year but that wouldn't change the separation minima applied to unknown traffic. [redacted] <ACOG> asked what growth expectations the airport anticipated. [redacted]<EDAL> stated that growth has been 4% for the past 6 years and they anticipated the same growth in the future. [redacted] <BGA> asked what had been growing. [redacted]<EDAL> replied that it was the passenger numbers that had been growing and not necessarily the amount of CAT. [redacted]<ACOG> asked whether the airport had a traffic cap. [redacted]<EDAL> replied that there is currently no cap and that they currently have unlimited hours of operation. [redacted] <DS> commented about the ability of the current radios and that in some locations, they can lose radio contact and asked whether there was any intention to improve the radios. [redacted]<EDAL> stated that they were aware of issues with the current radios and that there was plans to install a new voice switch that would choose which radio to use to optimise performance. Currently, the airport can operate on either the main or standby radios. The new voice switch would identify which radio is receiving the better signal of transmission and utilise this radio to also send the reply so this could improve the performance of the radios. [redacted]<DSGC> asked whether the radios would be 8.33KHz compatible. [redacted]<EDAL> stated that they should be by the end of the year. [redacted]<DSGC> stated that the gliders had been forced to change their radios in order to be compliant. [redacted] <PLY> asked whether the gliders had radios fitted and therefore would an RMZ work for them. [redacted]<DSGC> stated that the difficulty is workload versus staying in the rising air and that the workload can be overbearing at times. [redacted]<BGA> stated that from a BGA point of view, they could live with an RMZ more easily than a TMZ. **Design Principle: Accommodate traffic with limited/no Radio Capability.**	

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Design Principle: Accommodate traffic without Transponder Capability . [redacted]<PLY> asked whether it was the location of Exeter Airport and the other airfields around that was causing the problem. [redacted] <DSGC> stated that the gliders generally have to go east-west so run parallel to the Exeter procedures but ultimately have to follow the clouds to get the lift rate required. Even in a 2-seater glider, with one person operating the radios, just listening to the radio for traffic information increases the workload and can lead to a reduction in the rate of climb being achieved. This would be even worse for a single seat glider where the pilot is having to do everything on their own. [redacted] <PLY> asked if the gliders have cross-country areas or areas that they don't go. [redacted]<DSGC> stated that they can go anywhere but they have an agreement with Exeter ATC and will call on the radio if they are going close. They will also monitor Exeter's ATC frequency and will call if necessary, for situational awareness. [redacted]<FB> stated that FLARM was currently not compatible with other users, and particular with CAT [TCAS] although work is currently being done on the issue. [redacted]<PLY> asked whether there was any ongoing work on a lightweight transponder. [redacted]<BGA> started that there was work ongoing but that such equipage would not be available and ready in time for EDAL's proposed implementation date in 2021. The reality is that the work is ongoing but open ended. [redacted] <DSGC> asked whether the issue for Exeter ATC was with 7000 squawks. [redacted] <EDAL> stated that it was not generally the gliders that were causing the issue but GA squawking 7000. However, although some gliders call on the radio, if the radar can't see them, the radio calls can't be used for deconfliction purposes. [redacted]<DSGC> stated that if they launched 20-30 aircraft that all suddenly started squawking 7000, [i.e. in a mandatory transponder situation] it would cause more of a problem for ATC. This happened in Holland and they had to turn the squawks off. [redacted] <BGA> stated that during the last ACP process, Exeter were keen to have a symmetrical CAS construct, which was a problem as it spread out. [redacted] <BGA> didn't understand why the airport had to have symmetrical airspace as this would be a threat, in particular to the airfields north of Exeter Airport. There is a highway to the north and any airspace in this area would squeeze traffic more to the north. [redacted] <BGA> stated that an asymmetrical airspace design might be acceptable. [redacted]<DSGC> asked what the current containment policy was.	

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[redacted] <NATS> stated that the CAA document stipulates how far from the boundary procedures have to kept within CAS. [redacted]<OSP> added that the containment policy applies to new procedures and flight paths and that there is no requirement to contain existing flight procedures in new airspace. [redacted]<DS> commented that the meeting had discussed challenges and needs from the gliding community, but asked how it would affect the operators at Dunkeswell airfield. [redacted]<DSFT> stated that it would depend on the height required for the sky divers. [redacted]<BGA> asked if the sky divers cared whether there was CAS above them or not. [redacted] <DSFT> stated that airspace at the end of downwind or around the ATZ was more of an issue. [redacted]<BGA> asked if they would be happy to take-off and go directly into Class D airspace. [redacted] <DSFT> said that they would just get clearance and that they would tend to go further north. [redacted] <NATS> commented that there are areas in the Midlands where sky divers do get clearance to operate even in Class A airspace. [redacted]<ACOG> commented that the area around Manchester has to deal with a lot of parachute operations into airspace and that it was unusual to have any problems. [redacted] <EDAL> stated that Dunkeswell circuit is not a problem to Exeter ATC and operators there are encouraged to call Exeter to give assurance of traffic. [redacted]<DSFT> stated that pilots who operate from Dunkeswell are given the message to contact Exeter but that it is the visitors who generally cause the problem. [redacted]<EDAL> stated that if there was some CAS and the GA traffic remained below CAS flying under Visual Flight Rules (VFR), it would reduce the necessity to make a radio call. [redacted]<PLY> stated that if it was the random non-squawker's that were causing most of the problems, would they not just infringe any Class D airspace anyway. [redacted]<PLY> stated that if there was room underneath then deconfliction would not be necessary. [redacted] <EDAL> stated that bit would solve some problems, but not all. [redacted]<PLY> commented that they get traffic transiting from Royal Naval Air Station (RNAS) Culdrose to RNAS Yeovilton and that they would prefer any airspace to meet up with the base of the N864 airway.	

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[redacted] <FB> commented that trying to find something that dovetails and connects with the existing airspace structure would be interesting. [redacted]<EDAL> asked if the airlines wanted connectivity and is this a Design Principle. [redacted]<FB> stated that they would argue that they would be in favour of connectivity but that it would be a challenge as other airspace users don't want it. Any airspace structure needs to be useable on both sides and that creating predictability is what it is all about. He commented that pilots [flying IFR] do not look out as much as you'd think with cockpit workload and any solution would need to be something both sides could work with. [redacted]<NATS> commented that accuracy is key and airspace should be determined with PBN in mind. Any improvement in accuracy reduces workload. [redacted] <FB> commented that although Exeter Airport is not massively busy, environmental concerns are escalating. Moving to bigger aircraft people will start taking more notice and momentum will build for environmental concerns. This will need to be taken into account for this planning. [redacted] <NATS> replied that PBN has benefits in that people think of PBN as creating a corridor of noise but this could be a noise benefit as new routes can 'jink' between noise sensitive areas. [redacted] <OSP> added that positioning airspace in one place could increase noise or environmental issues in other places due to displaced traffic. [redacted]<FB> commented that noise impact is diffused under current procedures but PBN would do the opposite. [redacted]<DSGC> asked if multiple PBN routes were possible. [redacted]<NATS> stated that multiple routes were possible but they can create issues for flight planning purposes for airlines. [redacted]<ACC> commented that the questionnaires were sent out to members of the Airport Consultative Committee (ACC) and many of the members are from local councils. The only real issue at the minute is night flying and anything else is not a problem until it arises. It is difficult to mitigate against noise although you can spread the routes. Exeter doesn't have that much of a problem currently from an environmental perspective and they receive relatively few noise complaints. He added that they will generally be from specific individuals and these can give specific information. There are currently 870 houses being built on the extended centreline and the airport will get complaints. However, people should be aware that if they buy a house next to an airport, they should expect to get noise. [redacted] <ACC> commented that CAT all have TCAS and are able to track multiple transponders. If another aircraft is squawking Mode C, the system will see it. At 250 Kts, it is almost impossible to see a glider. A Mode C transponder makes a massive difference to safety.	

Item	Action
[redacted] <FB> stated that if an aircraft is squawking, TCAS will give a traffic alert or resolution which is a mandatory action for CAT. The biggest threat would be a non-transponding aircraft which is much slower and difficult to see and avoid. CAT have a much larger turn radius. [redacted]<DS> asked whether the airport had received many questionnaire replies from non-aviation stakeholders. [redacted] <OSP> stated that there had been very few replies received from non-aviation stakeholders. [redacted]<NATS> stated that at the full consultation at Step 3b, everyone will have the opportunity to comment on the proposal. [redacted]<PLY> commented that conducting a risk assessment of likely conflictions would be a good place to start, possibly looking at 3,000 ft and below. This may create a top level of any airspace requirement. [redacted] <ACC> stated that the airport would look to reduce the impact of noise on the local community as much as possible. There is a fine balance as the commercial aspects of the airport are very important in this area. [redacted]<NATS> commented that there could be a Design Principle related to commercial viability and the impact of noise and safety. [redacted] <DSGC> commented that if the design of the airspace heLP <OSP>ed reduce the impact of noise from CAT, it could create choke points and a funnelling effect that would create more noise from GA traffic. [redacted]<DS> agreed with this stating that in creating CAS, elements of GA would be funnelled so increasing the environmental impact of noise and increasing the danger of a MAC. **Design Principle: Any new airspace should not create funnelling or choke points for other airspace users** [redacted]<OSP> stated that Exeter are not planning on changing their procedures and any new airspace will be designed to protect the current procedures. [redacted] <DSGC> asked why the airport aren't considering changing their routes. [redacted]<EDAL> noted the question and reiterated that the airport are not planning on introducing new procedures. [redacted]<DSGC> commented that the previous ACP, the planned 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. [redacted]<DSGC> asked that any new airspace be as uncomplicated as possible and the minimum volume necessary. **Design Principle: Any new airspace should be as uncomplicated as possible**	

Item	Action
Design Principle: Any new airspace should use the minimum volume necessary [redacted]<BGA> stated that he was very concerned about the introduction of Class D airspace that is incompatible with other airspace users. The requirement should be to implement airspace that will work for everyone. [redacted]<OSP> stated that there is no starting point and that all options have to be considered at this stage. [redacted] <EDAL> commented that the runways are in a fixed position and the aim is to look at the principles of protecting routes that get aircraft to and from the runway. [redacted]<DSGC> stated that if Exeter are not changing any routes, it sounds like they are going to protect all the current routes and the implication is that Exeter will be doing the same as they did last time. [redacted] <EDAL> stated that the final solution could be anywhere in between where they are now and what was proposed previously. [redacted] <PLY> added that the flight profile to get an aircraft onto the Instrument Landing System (ILS) is the endgame. [redacted] <AA> stated that it would be good to implement Standard Instrument Departures (SID) and Standard Arrival Routes (STAR) as part of the process. [redacted]<FB> added that this would be good from an overall holistic approach. [redacted]<DSGC> stated that a requirement of the Airspace Modernisation Strategy (AMS) was to switch to PBN procedures and he was surprised that Exeter were not looking to introduce PBN routing. [redacted]<DSGC> also asked why Exeter were not intending to introduce PBN procedures. [redacted]<OSP> stated that by incorporating PBN procedures, the volume of airspace required to protect these procedures might increase. There is no requirement to contain existing procedures but if new procedures were designed these would have to be contained, including connecting to the airways structure. [redacted]<DSGC> stated that any CAS should be limited to the critical stages of flight. [redacted] <EDAL> added that the final approach was the most important part to protect. It would be great to have connectivity but they may not have it. [redacted]<DSGC> suggested that one option would be to create airspace similar to a Military Air Traffic Zone (MATZ) over the top of the airport. [redacted]<EDAL> agreed that this was a possible option. [redacted]<OSP> stated that introducing new SIDs or STARs would require a new business case for the airport. [redacted]<BGA> stated that the airport has to accommodate its own growth and that nothing should be taken off the table. The airport shouldn't take away	

Item	Action
any freedoms to do things that other users do now. People want to see Exeter Airport succeed but that doesn't give them the right to 'muscle out' other users of the airspace. There has to be a complementary relationship. [redacted]<OSP> added that PBN is more accurate so could help with the flexible use of airspace. [redacted]<BGA> commented that a place to start would be considering GA traffic at low level. Gliders are active up to between 5,000 and 6,000 ft. Above this height, there are generally no issues. The aim should be to keep CAT as high as possible until as close as possible. [redacted]<ACC> commented that flexibility is key. There should be connectivity to the airways for handover between Air Traffic units. Accuracy is excellent so it is possible to follow routes accurately and if GA are aware of the routes, then they can avoid them. GA recreation flying has a high degree of responsibility. If CAT fly accurate routes, including the vertical profile, ATC can concentrate their effort on other traffic. However, the difficulty is traffic that can't be seen by radar. Everybody flying should be able to be seen and transponding gliders give freedom. There is a lot of flexibility available from CAT but how do you make sure the GA community are aware. [redacted] <PLY> added that you can engage as much as you like, but it doesn't stop all issues. [redacted]<DSGC> added that every glider would fly with a transponder if they were cheap, small and light enough. [redacted] <DSGC> stated that gliding is not just a recreational sport but that GA and gliding generates most of the commercial pilots. [redacted]<DSGC> asked whether the existing hold could be re-designed as a right-hand racetrack, rather than left-hand, to help the glider operators and that this would have a positive impact on the number of recorded airproxes. [redacted]<AA> asked if this would cause problems with outbound traffic. [redacted] <EDAL> stated that this had been looked at but as it had been designed a number of years ago, it could be looked at again. [redacted]<ACC> commented on the planned implementation date of July 2021 and suggested that this should be moved to November 2021 so that any training requirements could be carried out during the quieter winter schedule, rather than during the busy summer period. [redacted]<EDAL> suggested there would be slippage in the programme but noted the comment as a good idea for consideration. [redacted]<DS> commented that any solution would need to be fair and equitable but also a safe result. [redacted] <BGA> stated that all CAS should be the minimum possible in terms of both size and categorisation.	

Item	Action
Design Principle: Any new airspace should use the minimum categorisation necessary [redacted]<EDAL> thanked everyone for attending and providing their input before closing the meeting.	

Summary of Potential Design Principles arising from the meeting

No	Design Principle
1	Any new CAS should be proportionate to the requirement
2	Create a known traffic environment
3	Consider the Flexible Use of Airspace
4	Accommodate traffic with limited/no Radio Capability.
5	Accommodate traffic without Transponder Capability
6	Any new airspace should not create funnelling or choke points for other airspace users
7	Any new airspace should be as uncomplicated as possible
8	Any new airspace should use the minimum volume necessary
9	Any new airspace should use the minimum categorisation necessary