

Appendix C - Stakeholder Feedback Received

Stakeholder Engagement Phase 1

Workshop Reports

- **Aviation Workshop - pages 2-26**
- **Local Government & Business Workshop - pages 27-51**
- **Community Workshop - pages 52-73**



STRENGTHEN
COMMUNITY
GROUPS

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Document Overview

This document is an overview of a workshop held with Aviation stakeholders on Thursday 27 June 2019 regarding the development of design principles for a change in Southampton Airport's airspace. Attendees included persons within the aviation industry representing commercial airports, aviation emergency services, gliding clubs and societies, private chartered aircraft, airlines, industry bodies and helicopter companies.

This document details what potential themes and issues were raised for consideration as part of the development of Southampton Airport's airspace design, for this particular workshop.

Please note that all conversation was summarised in the interests of transparency, although not everything stated by attendees was always applicable to Southampton Airport, the ACP or the Design Principles.

Workshop objectives

The objectives of the workshops were to:

- Increase awareness and understanding among participants about the need for airspace change and of the process for bringing it about
- To gain an understanding of what key stakeholders believe are the main constraints and opportunities connected with the use of airspace and any proposed changes to airspace use.
- To provide Southampton Airport with an insight into participants perspectives as to what factors should be considered when developing the design principles around changes to airspace.
- To develop a forum which can meet further to assess views on how the above findings are being used to shape and frame the design principles and to enable effective engagement throughout the Airspace Change Process (ACP).

Attendees representing Southampton Airport

SOU attendees

- Employee 1: provided an introduction, giving a high-level overview of the ACP process and welcoming all stakeholders present.
- Employee 2: provided additional information to stakeholders' questions where necessary, both in response to the presentation and when matters arose that required SOU input during the design theme discussions.

Trax attendees

- Employee 1: presented in greater detail how SOU will develop a set of design principles for Southampton Airport's airspace change. This included technical details surrounding the need for the ACP. They were also there to provide additional information to stakeholders' questions, both in response to the presentation and when matters arose that required SOU input during the design theme discussions.
- Employee 2: manned the presentation and took notes throughout the summary discussion, providing additional information to stakeholders' questions, both in response to the presentation and when matters arose that required SOU input during the design theme discussions.

BECG attendees

- Employee 1: facilitated the room discussion and ensured that all key objectives were met throughout the session.
- Employee 2: facilitated the discussion on Table 1 and minuted the feedback. Asked questions to facilitate the discussion when appropriate.
- Employee 3: facilitated the discussion on Table 2 and minuted the feedback. Asked questions to facilitate discussion when appropriate.
- Employee 4: annotated and facilitated the discussion on Table 3. Asked questions to facilitate discussion when appropriate.

Workshop format and design themes for discussion

As highlighted above, the presentation was given by an employee of Trax, who highlighted the seven themes that were to be outlined and discussed throughout the workshop. Those seven themes were:

- Safety
- Airspace capacity
- Flight efficiency and environmental performance
- Noise management and mitigations
- New technology
- Airspace integration
- Resilience

The following questions were asked regarding the relevant theme:

Safety

1.1. What do you consider to be particularly important when developing design principles that concentrate on safety?

1.2. Are there any other themes linked to safety that should be considered when developing design principles?

Airspace capacity

2.1. What do you consider to be particularly important when developing design principles that concentrate on capacity?

2.2. Are there any other themes linked to capacity that should be considered when developing design principles?

Flight efficiency and environmental performance

3.1. What do you consider to be particularly important when developing efficiency/environmental performance principles?

3.2. Are there any other themes linked to efficiency that should be considered when developing design principles?

Noise management and mitigations

4.1. How should the minimising the total noise impact of overflights and the difference between multiple route options and avoiding areas that were previously unaffected be traded off against one another?

4.2. Are there any other themes linked to noise management and mitigation that should be considered when developing design principles?

New technology

5.1. What do you consider to be particularly important when developing design principles that concentrate on new technology?

5.2. Are there any other themes linked to technology that should be considered when developing design principles?

Airspace integration

6.1. What do you consider to be particularly important when developing design principles that concentrate on airspace integration?

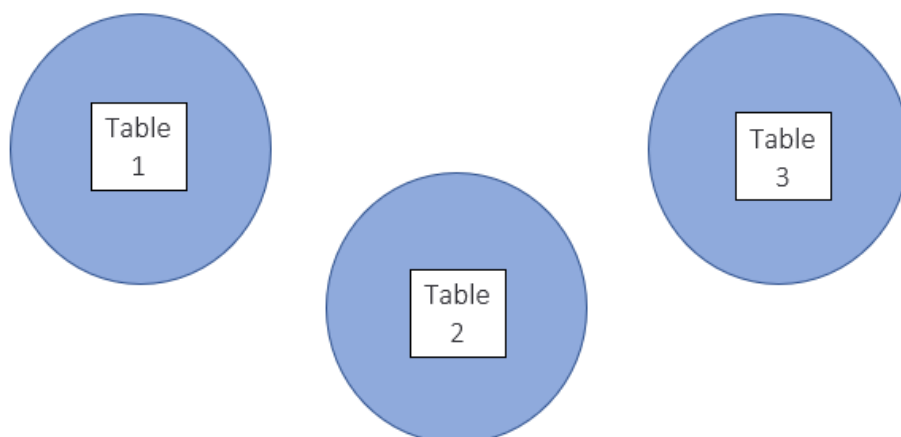
6.2. Are there any other themes linked to integration that should be considered when developing design principles?

Resilience

7.1. What do you consider to be particularly important when developing design principles that concentrate on resilience?

7.2. Are there any other themes linked to resilience that should be considered when developing design principles?

Table Plan and List of Attendees



| | | <u>Organisation</u> |
|-------------------------------|-----|---|
| TABLE 1 | 1. | Dorset Gliding Club |
| | 2. | Dorset Gliding Club |
| | 3. | Lasham Gliding Society |
| | 4. | Lasham Gliding Society |
| | 5. | Lasham Gliding Society |
| | 6. | Airspace-4-All |
| | 7. | Goodwood Aero Club |
| | 8. | Bath, Wiltshire and North Dorset Gliding Club |
| TABLE 2 | 9. | Gatwick Airport |
| | 10. | Specsavers Aviation |
| | 11. | XJC |
| | 12. | Solent Airport |
| | 13. | Bournemouth Airport |
| | 14. | Bournemouth Airport |
| | 15. | Lee Flying Club |
| | 16. | Vector Aerospace |
| TABLE 3 | 17. | Western Air (Thrupton) |
| | 18. | Western Air (Thrupton) |
| | 19. | Old Sarum Airfield |
| | 20. | Farnborough Airport |
| | 21. | Heli Air |
| | 22. | Hampshire Constabulary |
| Seated as an observer. | | Independent Commission on Civil Aviation Noise (OBSERVER) |

Notes from presentation

Prior to breaking away for questioning, an employee of Trax asked the room if they had any pertinent points or questions.

An attendee stated that participants for the day were at a disadvantage when commenting and feeding into the process as they hadn't seen the Statement of Need (SoN) submitted by Southampton Airport. An employee of Trax explained the SoN was publicly available on the CAA's Airspace Change Portal but also read out SoN to the room. Participants were also given the opportunity to see a printed copy. An attendee stated that SoN only allies with Government asking for change and is not necessarily due to need for increase of passenger numbers as per SOU's Masterplan. An employee of Southampton Airport outlined that SOU's expansion process and airspace change process are different processes; the Development Consent Order (DCO) process applies to the delivery of the Masterplan, whereas the ACP process applied amongst other drivers to the implementation of satellite-based technology at the airport. The latter is required to be future proofed to enable sufficient capacity and resilience at the airport, however an employee of Southampton Airport confirmed that the existing Southampton airport airspace is not currently capacity constrained.

Themes for discussion raised by each table

Each table had a member of staff from BECG there to facilitate and record any issues relevant to the themes discussed. Both tables had 10-15 minutes to discuss each theme, before a nominated person from each table relayed the key points raised. The points raised during these discussions are shown below. They are shown in relation to each design theme for consideration.

Table 1

| Organisation |
|--|
| Dorset Gliding Club |
| Dorset Gliding Club |
| Lasham Gliding Society |
| Lasham Gliding Society |
| Lasham Gliding Society |
| Airspace-4-All |
| Goodwood Aero Club |
| Bath, Wiltshire and North Dorset Gliding |

1. What do you consider to be particularly important when developing design principles that concentrate on safety? Are there any other themes linked to safety that should be considered when developing design principles?

- Airspace redesign should not create chokepoints or exasperate existing chokepoints, particularly for aircraft in class G.
- By allowing aircraft to climb or descend quicker, it should reduce impacts on airspace at a lower level. Lower airspace should be freed as a result.
- It needs to be remembered that the default airspace classification is class G.
- New technologies should enable closer spacing of flight paths to free up more airspace up to 7000ft. The use of new PBNs should make flying safer for all.
- Without current clear baseline/minimum standard for safety being outlined by the CAA or any other relevant authority being understood, it is hard to measure tangible safety benefit.
- All design decisions must be supported by data across the entire airspace change process. Design principles should account for minimum amount of controlled airspace in any region.
- If safety risks increase because of new designs, they need to be reviewed. Safety needs to be objectively viewed. Increase of risk shouldn't be acceptable to any users of the airspace.
- Risk shouldn't be put unduly onto another group to account for smoother operations of another.
- Flying of smaller aircraft shouldn't be stopped just to ensure commercial growth of airports or airlines, even for safety reasons.

- Designs should be as simple as possible. Complicating designs can lead to ATC error.
- Designs should account for visual navigation using landmarks such as main roads. Satellite navigation shouldn't be the only tool used for navigation.
- Methods to reduce airspace infringement needs to be looked at.

2. What do you consider to be particularly important when developing design principles that concentrate on capacity? Are there any other themes linked to capacity that should be considered when developing design principles?

- The need for increased capacity questioned when traffic figures, not passenger numbers, have declined at SOU over recent years.
- SOU does not mention specific traffic forecasts in their SoN and this presentation discusses requirement for greater capacity.
- Capacity must be considered of all airspace, not just for certain users. Holistic view must be undertaken for all users. Airspace modernisation should ensure that ATC has the capacity to handle VFR zone transits, not just the capacity to handle their commercial movements.
- Often class G aircraft are denied access to controlled airspace and struggle to land at their own strips. There needs to be focus on design to allow shared use of airspace between Class G and other commercial aircraft.
- Airports tend to be optimistic in their forecasts. If all airports forecasts were combined, the total number of movements does not feel realistic.
- Changes to airspace design solely because of projected increased flight numbers need to be accounted for independently.
- Designs need to account for future technology, and in particular - drones.
- Oxford, Bride and Exeter airports are all not listed within the 16 airports shown on FASI South. This is concerning as clearly their operations interact with other nearby airports. CAA need to revisit FASI South groupings.

3. What do you consider to be particularly important when developing design principles that concentrate on flight efficiency and environmental performance? Are there any other themes linked to efficiency that should be considered when developing design principles?

- Greater environmental performance and flight efficiency can be achieved through designs that don't create chokepoints.
- Commercially, continuous climb profiles make sense.
- Efficiency of all aircraft profiles should be identified not just commercial aircraft.
- Factors that fashion delays are important to account for, particularly incoming traffic from the north to SOU.
- Reducing environmental impact crucial.
- Steeper climbs should reduce airspace constraints.
- False to say that PBN is better. Tracking between buildings etc. could add more track miles to a lot of journeys and therefore less efficient.
- Flexible use of airspace is used in Germany but requires large collaborative effort between airspace users, designers and controllers to work. Any design change should look to account for all user needs, not just the change sponsors commercial need.

4. How should the minimising the total noise impact of overflights and the difference between multiple route options and avoiding areas that were previously unaffected be traded off against one another? Are there any other themes linked to noise management and mitigation that should be considered when developing design principles?

- New systems of arrivals/departures will need to stick to routes. As capacity isn't currently an issue at SOU, they aren't constrained by number of routes used in a day.
- Increasing the number of routes causes other issues associated with integration/segregation. More routes for respite may need more CAS.
- More CAS which keeps GA traffic down lower for longer, needs to also consider the impacts of noise from the GA aircraft, not just from the commercial operation.
- It might be good to use alternate routes across differing time frames to spread the impact across different communities e.g. heavily used over one area for 9 months and then lightly used for 9 months. The reason a 9-month window would be ideal is it wouldn't mean that impacts are focused upon defined months of the year/seasons. A homeowner might not want heavy air traffic flying over their property in only summer months etc.

5. What do you consider to be particularly important when developing design principles that concentrate on new technology? Are there any other themes linked to technology that should be considered when developing design principles?

- Industry should carry the cost of any additional technology implementation across all aircraft. It is unfair for that cost to be shared when the need for technology development and ACP comes from growth in commercial aircraft numbers.
- Drones are an issue, both now and going forward. Designs should account for future use and safety. The development of technology for use in airspace design needs to account for other advances in aviation technology which can complicate or aid the workloads of ATCO's.
- Default setting should not be Class D for new airspace use.
- ACP's should be pre-determined using firm, committed plans and not based around something that does not exist yet.
- EC an issue for smaller aircraft. EC debate must include use of wide range of technologies, not just a narrow band.
- ATC surveillance should take account of different types of EC devices, especially ADS-B. This should mean greater acceptance of aircraft into controlled airspace.
- As part of the ACP process, there is a worry that airports will be trying to 'grab' airspace as class D minimum requirement, and thus shrinking the airspace that lower class aircraft can operate in. Technologies need to help all types of aircraft and allow a large programme of integration.

6. What do you consider to be particularly important when developing design principles that concentrate on airspace integration? Are there any other themes linked to integration that should be considered when developing design principles?

- Respite in flight paths is an issue, both at present and as part of any design solution. Multiple respite routes for commercial airliners will result in restricting airspace for other users.
- Design should start with a default Class G, then figure out which changes can be made to allow all aircraft into the most amount of airspace. Minimum operational need needs to be established with Class G shown more tolerance.
- Needs to be a broad spectrum which allows integration of other users. Requirements need to be mandated.
- Class D areas don't need to encompass everywhere near the airport, only the entry/exit routes. This needs to be a key consideration for any future design. The areas that aren't on the flight path but are close to the airports can be freed up for classes lower than class D.
- EC strategies are based on future ideas which aren't feasible and there needs to be a reality check considered for ACP. CAA future strategy is everyone/every aircraft visible to everything via one common EC system which simply isn't realistic.
- You need different EC methods to be extended based on profiles as this has a large bearing on integrated airspace. Not everyone can have transponders on their planes and if they do, then everyone needs collision avoidance technology etc. Tech needs to account for safety as a paramount priority, as well as the needs of all aircraft users.
- EC isn't a complete solution to airspace issues. All design principles should seek to maximise eventualities/solutions. In current environment, this seems that we can't input into design from a tech perspective.
- Would like a minimisation of class D airspace and maximisation of Class G. Change in paths need to account for everyone not just commercial airliners.
- ATC must have the capacity to handle and integrate VFR traffic, provide crossing clearances etc

7. What do you consider to be particularly important when developing design principles that concentrate on resilience? Are there any other themes linked to resilience that should be considered when developing design principles?

- Not good to operate at capacity.
- Design must be future proofed for future movements and technology developments. This process shouldn't be revisited any time soon.
- Airspace shouldn't be designed for emergencies and should be designed for day-to-day efficiencies for all. Any 'spare' airspace is unacceptable just to account for potential disruption. If proposal is to create airspace for resilience, a large consequence is that it will restrain airspace in other locations. Benefits vs adverse impacts to other users need to be considered and not disregarded.
- Needs to be a clear principle from SOU as to what they wish to achieve capacity wise as SOU aren't currently operating a maximum capacity.
- Base technologies can't be commented on just yet.

Table 2

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|------------------------|
| Organisation |
| Gatwick Airport |
| Specsavers Aviation |
| XJC |
| Solent Airport |
| Bournemouth Airport |
| Bournemouth Airport |
| Vector Aerospace |
| Lee Flying Association |

1. What do you consider to be particularly important when developing design principles that concentrate on safety? Are there any other themes linked to safety that should be considered when developing design principles?

- Need to secure capacity for special VFR transit and securing capacity for special VFR in class D, as this is at capacity. The maintenance of separation between VFR traffic is key.
- Infringements made by of SOU's airspace are of concern. Airspace should be designed so safe for all aircraft, not just commercial.
- Keen to see a decrease in the probability of aircraft getting close to one another. Need displacement of tracks, not just vertical separation. We need to facilitate VFR traffic through safe expedition and a holistic view. Important for emergency service aircraft.
- Concern regarding the squeeze of airspace on GA.
- Need more than one route to accommodate VFR traffic. Need resilience built in to enhance safety of GA operations.
- Simplicity of airspace design reduces infringement.
- Change needed to make aircraft more conspicuous in an electronic sense.
- Need joined up thinking with other airports when it comes to design.

2. What do you consider to be particularly important when developing design principles that concentrate on capacity? Are there any other themes linked to capacity that should be considered when developing design principles?

- If you take too much Class G airspace, you may have an impact on safety.
- Need to be joined-up thinking between airports.
- To be refused access due to ATC workload is unacceptable. Often hard to secure radar clearance. Capacity should revolve around ATCO numbers.
- Implementation of PBN gives more capacity. Be mindful of environmental and noise aspects – provide more than one route.
- Secure resilience through additional routes.
- Scheduling of capacity is key, particularly with so many airports close together in the South.

- Airspace for training needed. Within any future design, the holding capacity for daily operations is needed.

3. What do you consider to be particularly important when developing design principles that concentrate on flight efficiency and environmental performance? Are there any other themes linked to efficiency that should be considered when developing design principles?

- In the US they climb much faster for environmental reasons. Suggest design on leading edge of aircraft technology and design – suggested we set minimum performance targets for climbs to allow faster climb. Where an aircraft does not have this performance, could we have a range of gradients and optimise? In order to optimise you might need to mandate new gradient profiles.
- From a VFR perspective, we need a greater distance between conspicuous air and non-conspicuous aircraft. Opportunity to say that to enter new controlled airspace you must be conspicuous. If you cannot, then that aircraft must use a different route.
- When it comes to arrivals, an arrivals regime needs to be considered. Vectoring requires workload and is less environmentally friendly.
- A current issue is the unpalatable design of airspace between ground level and 2,000 ft. Balance needs to be struck between GA and CA.
- Opportunity to design airspace around modern aeroplanes, not those of the 1950s.
- Modern aircraft with a curved approach may be the answer; means you may not need to get as far out as 11 miles before descending.
- Greater consistency in how ATC's direct people need – new standard procedure.
- Airspace design should be simple and straightforward.

4. How should the minimising the total noise impact of overflights and the difference between multiple route options and avoiding areas that were previously unaffected be traded off against one another? Are there any other themes linked to noise management and mitigation that should be considered when developing design principles?

- Need mix of routes for range of traffic being managed.
- PBN routes now very accurate so will be more of a concern. PBN routes are not random and they could go over same house every time.
- Consider where you can offer meaningful relief e.g. Time dimension on multiple routes e.g. during evenings.
- Designs should start with a 'blank paper' with net gains for everyone to minimise the effects on most people.
- Minimum climb gradient and integration with airports to avoid issues. Human ATC use well practiced routes whereas algorithms and joined-up technology means variety.
- Should be able to reduce separation and volume of Class D Airspace.
- Most people complain about aircraft noise at low-level; slow GA flights, for example, Harvard's and need to consider GA single-engine piston and helicopter.
- Most complaints are about GA and helicopters as they are held. Design of airspace should efficiently integrate GA routes to avoid GA holds.

5. What do you consider to be particularly important when developing design principles that concentrate on new technology? Are there any other themes linked to technology that should be considered when developing design principles?

- Electronic conspicuity is integral to modern airspace and advised use of Memorandum of Understanding to facilitate. This standpoint was split across the table.
- Avoid restrictions on operators but use technology to make it more efficient. It will be difficult to integrate everyone, but we should make the most of it.
- Airspace is trying to catch up with airlines and aircraft technology.
- Use of data link to facilitate more efficient transit between aircraft advised; enhance safety by using routes no one else will be using and which should be exclusive to the airport.
- Consider unofficial technology currently used by aircraft right now – and those who cannot use ATS. Use of mobile data could increase capacity.
- More traffic services for GA.

6. What do you consider to be particularly important when developing design principles that concentrate on airspace integration? Are there any other themes linked to integration that should be considered when developing design principles?

- Priority should be to facilitate all users. Need enough ATM capacity and inclination – would like ATMs with presumption of yes to GA access.
- Consider lower airspace radar too. Would like to see integration of flight strip system where info on flights is shared automatically, like in France where they have one ANSP. Joined-up thinking to deliver better quality airspace radar system is needed. Currently, having multiple conversations causing greater inefficiency. Rarely get handover when passing from one to next.
- Ensure airspace integration works for everyone so that if you take from GA you give back elsewhere. This is an opportunity to integrate operational ATM system not just airspace.
- Concerns about who fronts the cost for these changes.

7. What do you consider to be particularly important when developing design principles that concentrate on resilience? Are there any other themes linked to resilience that should be considered when developing design principles?

- Keep sufficient conventional navigation as a back-up to new satellites.
- There is a certain amount of terminal and runway capacity. SE England is a special case given the number of airfields in one place.
- GNSS was number 5 on UK Infrastructure Risk Register – surprised at move to increasingly rely on this given risk of solar flares. Should we be removing ground based NAVaids?
- Weather requires a greater degree of resilience. Need to account for multiple routes at any one time. Others suggested two distinct routes that are sufficiently separated would be acceptable.

- Compromise between creating considerable resilience and detriment to noise, environment. A balance needs to be struck.

Table 3

| |
|------------------------|
| Organisation |
| Western Air (Thrupton) |
| Western Air (Thrupton) |
| Old Sarum Airfield |
| Farnborough Airport |
| Heli Air |
| Hampshire Constabulary |

1. What do you consider to be particularly important when developing design principles that concentrate on safety? Are there any other themes linked to safety that should be considered when developing design principles?

- RE helicopters - need to be able to transit with gas and oil pipeline surveillance; cannot diverge from the route of the pipeline. Any redesign below 2000ft could impact helicopter operators, which could in turn affect noise levels on the ground due to holding.
- There must be some lateral expansion of Solent/SOU CTA to the North. What classification of airspace will this be? No more than class D, presumably, or a more VFR-friendly Class E? Current airspace could be redesigned to release some Class D airspace in the CTA by adjustment of base levels.
- Aircraft performance has moved on from original airspace design.
- No expansion of existing controlled airspace and simplification of controlled airspace which prevents people from having to think too much and reduces infringements.
- Don't create a design which creates bottlenecks.
- Changing airspace should involve consideration of visual reporting points.
- Number of air traffic controllers is very important.
- Concerned about the interests of gliders being overrepresented, as they don't fly as low as Heli pilots.
- Conflicts with military airspace need to be addressed.

2. What do you consider to be particularly important when developing design principles that concentrate on capacity? Are there any other themes linked to capacity that should be considered when developing design principles?

- Important to reduce pinch points.
- Having enough ATCOs remains important. In past low resources has meant access to CAS restrictions.
- Ability to accommodate both IFR and VFR traffic is important. ATS unit must be sufficiently managed to offer service to both VFR and IFR traffic.
- Thrupton are considering the possibility of a GNSS approach. If SOU wanted to expand north or lower airspace to the north, that could jeopardise Thrupton's opportunities for SE approach in the future. These landmarks are easily seen by pilots visually, so expanding airspace can deny these visual markers.
- Need to be mindful of parachuting in Old Sarum is at 15000ft.

- Concern that other airports are overestimating future capacity and that desire for increased capacity is unnecessary.
- SOU doesn't have adequate controlled airspace at the moment so CTA expansion must be considered, particularly in the Winchester orbit. Most speculated traffic is from the north.

3. What do you consider to be particularly important when developing design principles that concentrate on flight efficiency and environmental performance? Are there any other themes linked to efficiency that should be considered when developing design principles?

- Maintaining closer hold spots to SOU for helicopters would be beneficial. If not holds will be for longer and cause more impact.
- To reduce environmental impact, it's considered that a reduction of CTA to the NE is essential, albeit a managed one.
- Efficiency is allied to safety and particularly capacity, due to SOU's need for circling aircraft to the north to lose height, directly impacting airspace capacity.
- Over-reliance on GPS a concern, couple with lack of ground satellites. It won't take much to inhibit the ability of aircraft to divert.
- Q400 could operate at higher level, but Airbus 320 and 737 could not accept steeper descent. Q400 could probably adequately handle 5 degrees, but bigger jets couldn't.
- Spare capacity must be provided – efficiency means different things to different people

4. How should the minimising the total noise impact of overflights and the difference between multiple route options and avoiding areas that were previously unaffected be traded off against one another? Are there any other themes linked to noise management and mitigation that should be considered when developing design principles?

- Need to avoid expanding controlled airspace to accommodate respite routes. Doubling number of routes would mean expansion of existing airspace which isn't good.
- Focus should be on continuous climbs and descents; this would ally with previous government policy to get planes up and down quickly.
- People want less noise because the potential for aircraft noise encounters is constantly going up.
- Noise complaints tend to come from small numbers of people, who complain regularly. Complaints are often centred around people's lifestyles.
- Pinch points, both vertical and lateral, is important to concentrate on. Not just important that controlled airspace is minimised, but that it's directed to avoid the creation of pinch points. Any expansion must include increase in ATCOs.

5. What do you consider to be particularly important when developing design principles that concentrate on new technology? Are there any other themes linked to technology that should be considered when developing design principles?

- Technology is there to facilitate continuous climbs and descents.

- Loss of any ground based NAVAIDS which SOU has an NDB or a VOR/DME denies us resilience and backup/support. Primarily, they're used for training, but equally to keep clear of SOU's controlled airspace. If we can't do that, we'll have to rely on either our own technology or ATCs – linking back to the need for enough ATCs.
- If ground based NAVAIDS are withdrawn, what is there to protect against the failure of new technology?
- DME is very useful for keeping out of controlled airspace, reducing the workload on ATC
- When we track down, it's surprising to see how difficult it is to avoid SOU when also trying to avoid gliders at Lasham. It's difficult to stay within the relatively tight margins. This is even more difficult when attempting to avoid Shoreham.

6. What do you consider to be particularly important when developing design principles that concentrate on airspace integration? Are there any other themes linked to integration that should be considered when developing design principles?

- Need to handle VFR traffic without pinching them down too much.
- Added complication is that there are two separate entities – SOU and BOH – sharing Solent CTA. There needs to be close and early interface between both, which are currently both going separately with separate ACPs. There needs to be a joint presentation of SOU and BOH's aspirations to the group present today.
- Although they need to be integrated, we as users need to know which entity we're interfacing with – difficulty of knowing which frequency to listen to. Important to make sure that the approaches are integrated, but that it's clearly delineated for users to know who they should be talking to.
- Issue is integration of SOU's Class D airspace and NATS' class A airspace which is going to have a strong influence on how much SOU's CTA will need to expand laterally – the more clearance from NATS to lower their Class A, it may impact favourably on SOU's ability to expand laterally.
- There's room to disestablish some of existing CTA but there's a problem where SOU and BOH overlap.

7. What do you consider to be particularly important when developing design principles that concentrate on resilience? Are there any other themes linked to resilience that should be considered when developing design principles?

- Important to consider what contingency measures are going to be put in place for satellite-based systems. Air-based systems aren't necessarily sufficiently reliable.
- What provision is going to be made for systems failure in the case of transit-based flight, which won't involve significant diversion around controlled airspaces?
- Design principles they need to make provision for the loss of ground-based systems, for example in poor weather.
- GA operating outside of controlled airspace, when a GPS goes down with a loss of NAVAIDS the backup navigation has disappeared. SOU needs to think of how they'll maintain safety.
- Not practical to remove ALL the ground-based systems.

- We're assuming SOU will retain its radar system and have enough staff to manage situations, if and when they arise.

Notes from summary round up

Once all tables had concluded their group discussions, a representative from each table was selected by other members on their table to present the highlights and key themes to their discussion, referring to each design theme.

Table 1 Summary

Safety

- This is taking place in the context of transformation of the upper airspace. Of the view that we should let upper airspace change mature first.
- Electronic conspicuity is still immature and so communications need to work with current technology
- Need to find the optimal centre of gravity between GA and commercial – not just deliver for one.
- We have no insight into the realities of SOU's expansion aspirations (numbers). It will be necessary to see real figures on this.
- Without baseline of risk it is impossible to discuss safety – need formal baselines so we can all participate. Need the total system perspective though, not just SOU.
- Simplify airspace structure as much as possible to avoid complications. A complex airspace structure will put more pressure on pilots.
- Maximising integration / minimising segregation - it can look very different from different perspectives

Capacity

- Must talk about future routes of air traffic – real number for requirements not just aspirations and estimates.
- Practical volumes need to be discussed, not just imagined. Realistic forecast numbers must be issued. At present it appears that future volumes are highly optimistic, if imagined this will place undue workload on ATCOs.

Flight efficiency and environmental performance

- Total system concept to be considered. Squeezing airspace on one can have large increased enviro impacts. If you introduce new CAS it could force GA into operating in more constrained environment
- Trade-offs need to be understood.

Noise

- Respite and CAS for respite could increase noise made by GA.
- Secondary effects to be considered. Access to controlled airspace needs to be maximised.
- A neat distinction of airspace may not be feasible to make efficient flight patterns etc.

Technology

- Drone tech essential to be considered as future proofing etc.
- PBN involves CAS – would like to see the irreducible minimum amount of controlled airspace to be found which maximises access to GA – asked that we look on a case-by-case basis to identify interoperability.

Integration

- Taking place against a wider landscape in terms of airspace design. Upper airspace transformation.
- EC and tech conversations are at early stage. Need to be practically minded when considering design.
- Needs to be a centre of gravity amongst stakeholders – integration vs exclusion.
- Stressed the need to involve the ‘u-airspace drone community.’

Resilience

- Resilience: is it for necessity or convenience? Delays are a part of any normal system and airspace should not be permanently squeezed to make potential improvements which will be so infrequently used.
- Do not design airspace for emergency situations. This would constrain GA unnecessarily.

Table 2 Summary

Safety

- Airspace should be deconflicted by design and should build in layers of safety; need an element of electronic conspicuity; need to use technology and business behaviour to improve safety.
- Current limitation is we have reduced ability for all GA to be able to fly in controlled airspace due to EU regulation (Mode S transponders) - how do we facilitate the ability to accommodate the non IFR users in Class D airspace?

Capacity

- PBN needs to be more smartly applied. We need to plan routes based on advanced planes, not lowest common denominator.
- Need to design greater ATC capacity to handle both CAT and GAT.
- Erosion of Class G a concern.

Flight efficiency and environmental performance

- Use of curved approaches may be appropriate.

Noise

- Discussed merits of using multiple routes.

Technology

- Suggested a design that works for everyone.
- Consider how we grant access to CAS for GA.
- PBN - the application of datalink and ADS-B as well.

Integration

- Integration and cross coupling of all things involved not to isolate them.

Resilience

- Resilience for necessity vs convenience – delays are a part of any normal system.

Table 3 Summary

Safety

- Question any justification for the expansion of SOU's Control Zone. Current concept of two controlled zones should stay so will need CTA, but expansion of CZ is not warranted. All modernisation can be handled within current CZ. However, the current CTA zone is not fit for purpose. Change the airspace, but do not expand the airspace.
- Staff resources for managing airspace are insufficient – when responsible for airspace it is reasonable to expect among GA that SOU efficiently manage the airspace. Please provide visual demarcation of controlled CA for GA to avoid.
- Avoid bottlenecks and pinch points where possible.

Capacity

- Adequate access for helicopters – there are somewhat inordinate restrictions on helicopters. London handles helicopters better.

Flight efficiency and environmental performance

- Steeper approaches for general use are considered not to be practical
- Adequate access for helicopters due to their low altitude.
- Some odd restrictions are put on helicopters and are held off the runway centrelines
- Compare London with SOU. SOU are behind on their integration of helicopters which affects environmental performance.

Noise

- Facilitation of continuous climb and descent within CAS would be welcome
- Respite routes without considerable expansion of SOU CA is a non-starter. Will not be practical.

Technology

- What happens in the event of technological failure? You need to keep some ground-based navigation.
- Staff resources to facilitate access to CAS key.

Integration

- hope that SOU and BOU will give joint presentation on their options for their ACPs.
- How flexible will NATS be on Class A airspace?

Resilience

- Important to account for potential technology failures in design.

Glossary

| | |
|----------------|--|
| <u>ACP</u> | Airspace Change Proposal / Process |
| <u>AGS</u> | AGS Airports Ltd |
| <u>ANSP</u> | Air Navigation Service Provider |
| <u>ATC</u> | Air Traffic Controller |
| <u>ATM</u> | Air Traffic Management |
| <u>ATZ</u> | Aerodrome Traffic Zone |
| <u>BOH</u> | Bournemouth Airport |
| <u>CA</u> | Civil Aviation |
| <u>CAA</u> | Civil Aviation Authority |
| <u>CTA</u> | Control Areas |
| <u>DME</u> | Distance Measuring Equipment |
| <u>EC</u> | Electronic Conspicuity |
| <u>GA</u> | General Aviation |
| <u>GBAS</u> | Ground Based Augmentation System |
| <u>GBN</u> | Ground Based Navigation |
| <u>GNSS</u> | Global Navigation Satellite System |
| <u>GPS</u> | Global Position System |
| <u>ILS/MLS</u> | Instrument/Microwave Landing System |
| <u>IOW</u> | Isle of Wight |
| <u>IRT</u> | Instrument Range Testing/Test(s) |
| <u>LARS</u> | Lower Airspace Radar Service |
| <u>MATZ</u> | Military Aerodrome Traffic Zone |
| <u>NATS</u> | National Air Traffic Services |
| <u>NAVAIDs</u> | Ground-based navigational aids |
| <u>NDB</u> | Non-Directional Beacon |
| <u>PBN</u> | Performance-based navigation |
| <u>SON</u> | Statement of Need |
| <u>SOU</u> | Southampton Airport |
| <u>UHF</u> | Ultra-High Frequency |
| <u>VFR/IFR</u> | Visual Flight Rules/Instrument Flight Rules |
| <u>VOR</u> | VHF (Very High Frequency) Omni-Directional Range (VOR) |

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Document Overview

This document is an overview of a workshop held with Local Government and Business stakeholders on Monday 1st July 2019 regarding the development of design principles for a change in Southampton Airport's airspace. Attendees included parish and county councillors, and local government and business group representatives.

This document details what potential themes and issues were raised for consideration as part of the development of Southampton Airport's airspace design, for this particular workshop.

Please note that all conversation was summarised in the interests of transparency, although not everything stated by attendees was always applicable to Southampton Airport, the ACP or the Design Principles.

Workshop objectives

The objectives of the workshops were to:

- Increase awareness and understanding among participants about the need for airspace change and of the process for bringing it about
- To gain an understanding of what key stakeholders believe are the main constraints and opportunities connected with the use of airspace and any proposed changes to airspace use.
- To provide Southampton Airport with an insight into participants perspectives as to what factors should be considered when developing the design principles around changes to airspace.
- To develop a forum which can meet further to assess views on how the above findings are being used to shape and frame the design principles and to enable effective engagement throughout the Airspace Change Process (ACP).

Attendees representing Southampton Airport

SOU attendees

- Employee 1: provided an introduction, giving a high-level overview of the ACP process and welcoming all stakeholders present.
- Employee 2: provided additional information to stakeholders' questions where necessary, both in response to the presentation and when matters arose that required SOU input during the design theme discussions.
- Employee 3: observed the session and provided additional information in response to stakeholders' questions, where necessary.

Trax attendees

- Employee 1: presented in greater detail how SOU will develop a set of design principles for Southampton Airport's airspace change. They presented technical details surrounding the need for the ACP and was also there to provide additional

information to stakeholders' questions, both in response to the presentation and when matters arose that required SOU input during the design theme discussions.

- Employee 2: manned the presentation and took notes throughout the summary discussion. There were also there to provide additional information to stakeholders' questions, both in response to the presentation and when matters arose that required SOU input during the design theme discussions.

BECG attendees

- Employee 1: facilitated the room discussion and ensured that all key objectives were met throughout the session.
- Employee 2: facilitated the discussion on Table 1 and minuted the feedback. Asked questions to facilitate the discussion when appropriate.
- Employee 3: facilitated the discussion on Table 2 and minuted the feedback. Asked questions to facilitate discussion when appropriate.

Workshop format and design themes for discussion

As highlighted above, the presentation was given by an employee of Trax, who highlighted the seven themes that were to be outlined and discussed throughout the workshop. They also asked stakeholders at the end of the session if there were any additional themes we should consider. The initial seven themes discussed were:

- Safety
- Airspace capacity
- Flight efficiency and environmental performance
- Noise management and mitigations
- New technology
- Airspace integration
- Resilience

The following questions were asked regarding the relevant theme:

Safety

1.1. What do you consider to be particularly important when developing design principles that concentrate on safety?

1.2. Are there any other themes linked to safety that should be considered when developing design principles?

Airspace capacity

2.1. What do you consider to be particularly important when developing design principles that concentrate on capacity?

2.2. Are there any other themes linked to capacity that should be considered when developing design principles?

Flight efficiency and environmental performance

3.1. What do you consider to be particularly important when developing efficiency/environmental performance principles?

3.2. Are there any other themes linked to efficiency that should be considered when developing design principles?

Noise management and mitigations

4.1. How should the minimising the total noise impact of overflights and the difference between multiple route options and avoiding areas that were previously unaffected be traded off against one another.

4.2. Are there any other themes linked to noise management and mitigation that should be considered when developing design principles?

New technology

5.1. What do you consider to be particularly important when developing design principles that concentrate on new technology?

5.2. Are there any other themes linked to technology that should be considered when developing design principles?

Airspace integration

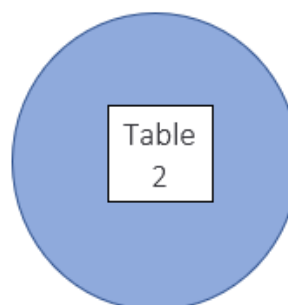
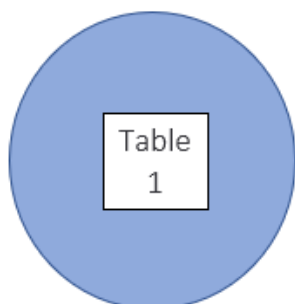
6.1. What do you consider to be particularly important when developing design principles that concentrate on airspace integration?

6.2. Are there any other themes linked to integration that should be considered when developing design principles?

Resilience

7.1. What do you consider to be particularly important when developing design principles that concentrate on resilience?

7.2. Are there any other themes linked to resilience that should be considered when developing design principles?

Table Plan and List of Attendees

| | | <u>Organisation</u> |
|----------------|-----|---|
| TABLE 1 | 1. | Solent Local Enterprise Partnership |
| | 2. | Bishopstoke Parish Council |
| | 3. | New Forest National Park Authority |
| | 4. | Compton and Shawford Parish Council |
| | 5. | Eastleigh Borough Council (also part of Southampton Airport Consultative Committee) |
| | 6. | Eastleigh Borough Council (also part of Southampton Airport Consultative Committee) |
| | 7. | Southampton City Council |
| TABLE 2 | 8. | New Forest District Council |
| | 9. | Twyford Parish Council |
| | 10. | Winchester City Council |
| | 11. | Winchester City Council |
| | 12. | Eastleigh Borough Council |
| | 13. | South Downs National Park Authority |

Notes from presentation

Following a short introduction from an employee of Southampton Airport, an employee of Trax took the presentation. The employee of Trax outlined the themes for discussion before asking the room if they had any questions prior to moving on to table debates.

An attendee asked how NATS and SOU airspace integrate? An employee of Trax explained role of NATS and SOU in ACP and airspace management. This is the first time there has been a wholesale change to airspace.

An attendee asked how will our feedback count and is safety the only priority? An employee of Trax explained that safety is number one priority but no running order for themes after that. The employee of Trax explained that CAA specifically asked that we engage with safety as a design principle for discussion.

An attendee asked how these themes have been selected? An employee of Trax stated that these are presented only for structure, not to steer the conversation away from any particular issues. The employee of Trax also stated they were happy to hear any other suggestions as the day progressed.

An attendee raised the point of future proofing - what is the timeline? An employee of Trax explained that government timeline runs until 2040, as predictions after that data might not be too realistic and forecasts become unreliable. NATS have said that once this has been implemented it should not be changed – we should be deploying enough airspace for future maximum capacity scenario – may not happen, but this is govt advice.

An attendee commented that trade-offs for growth are concerning and need to be addressed as part of the design process. Will we discuss this today? An employee of Trax confirmed that attendees could discuss this today as part of an open discussion. The employee of Trax also talked about liaison between NATS and SOU, and how SOU envisage things may change, but that ultimately our design principles would be guided by issues raised across all the stakeholder focus group workshops. There is an expectation that SOU more efficiently manage noise.

An attendee asked how will SOU and NATS integrate airspace below and above 7,000ft? CB stated that NATS have asked that SOU consider this in relation to “letterboxes”, where the two could link up. Extremely difficult and has not been done before. Helpful feedback as we are aware of the challenge.

Notes from each table

Each table had a member of staff from BECG there to facilitate and record any issues relevant to the themes discussed. These notes are shown below in relation to each design theme for consideration.

Table 1

| Organisation |
|---|
| Solent Local Enterprise Partnership |
| Bishopstoke Parish Council |
| New Forest National Park Authority |
| Compton and Shawford Parish Council |
| Eastleigh Borough Council (also part of Southampton Airport Consultative Committee) |
| Eastleigh Borough Council (also part of Southampton Airport Consultative Committee) |
| Southampton City Council |

1. What do you consider to be particularly important when developing design principles that concentrate on safety? Are there any other themes linked to safety that should be considered when developing design principles?

- Looking at scheduled and known aircraft -should we consider police aircraft, emergency services, police helicopters and military aircraft?
- Structures within the current flightpath places number of constraints within Southampton in terms of building heights and the trees in Marhill Copse which impinge into airspace. As there is a current area of tolerance, with improved technology, will there be more ability for safety margins to be narrowed? We want to protect old and beloved trees.
- Whose safety are we considering? Planes or passengers? People under the flightpath? If it's the last of these, you might want to prioritise a path which keeps away from population densities.
- We need a back-up system for technology outages. Air traffic controllers need a back-up staff numbers are cut. Demonstrate safety in this regard.
- Security is very important - we need to consider integrity of the system used and any potential backups.
- What if any aircraft has a problem? There must be a process for overlaps on final approach to airport and an increased capacity for non-scheduled flights. Where are the non-scheduled and holding emergency points? Flexibility needs to be included.
- SOU needs greater capacity to manage greater demand. procedures for managing emergency scenarios need to be fully established.

2. What do you consider to be particularly important when developing design principles that concentrate on capacity? Are there any other themes linked to capacity that should be considered when developing design principles?

- Capacity should not be increased locally that it prevents opportunity to deliver improvements to local area. A local net benefit should be achieved through routes to create minimum impact on communities; heights of buildings within airspace etc.
- Ecological impact – we have sensitive sites within Solent region e.g. Solent mudflats and nesting birds.
- Routes impacted through increased capacity.
- What will take greater priority: protection of environment and ecology or creating extra capacity?
- If limiting factor to increased capacity is runways, this should be defined by SOU first. Is continuing growth of air travel a long term goal? Are we going to achieve the carbon plans?
- What else will airspace be used for in future? Needs to be accounted for, particularly technology developments. There should be an assumption that headroom is given for change. if there was a new plane technology with significant benefits for community and environment e.g. slow gradient – this needs to be accommodated.
- Regarding drones, we need to recognise that technology can change and no longer fit within this model.

3. What do you consider to be particularly important when developing design principles that concentrate on flight efficiency and environmental performance? Are there any other themes linked to efficiency that should be considered when developing design principles?

- Innovation is often prevented by existing rules. Airspace infrastructure needs to accommodate future.
- Emissions and air quality are as important as noise – don't think one more important than the other. Noise is more immediately apparent which is why people focus on it more.
- Concerning that air quality above 1000ft is not considered a local air quality issue. If you have emissions it will have some impact, health officials say there is no safe level.
- Is there any concern that if you reduce emissions you need steep climbs and more efficient aircraft? do you need bigger planes for steeper climbs? Do you need to consider changes made to weight of aircraft and the type of fuel used for steep climbs?
- Increased efficiency means more people, more cars, parking issues etc. There needs to be a new traffic system and initiatives for increase on rail capacity; all for efficiency.
- Across most airports there has been a reduction in public transport for airports because of very early flights.
- Freight needs to be considered. This is especially true when considering the public transport burden of increased air freight.
- Should freight distribution companies be brought into this process?
- geographic and economic factors need to be considered e.g. if you were in an area with lots of industry or housing below, would it be more appropriate to fly over this area of housing or will it be better to fly over greenbelt areas?

4. How should the minimising the total noise impact of overflights and the difference between multiple route options and avoiding areas that were previously unaffected be traded off against one another? Are there any other themes linked to noise management and mitigation that should be considered when developing design principles?

- If you want to enlarge capacity of airspace, then from take-off that there is little that you can do. If you must reduce the time before you turn, there will be more noise in an area. If you have aircraft flying at a steeper angle, can you offset the noise?
- Is there a benefit of having more aircraft? Do SOU currently operate noise mitigation routes?
- There are restrictions on operation hours at present. Recognition locally that Consultative panel worked well to manage the noise-preferred areas.
- SOU encouraged to consider multiple routings and agreed that the Southampton Airport Consultative Committee should be kept apprised.
- Because of the mandated need to have PBN routes, the option of conventional routes is not possible – will pollution be more concentrated as a result? Could this be resolved if they descended at a steeper angle?
- Important to embed in stakeholder element and monitoring of these things to avoid creeping of issues, possibly through use of a panel to monitor and report on.
- Do thresholds for noise need to change along with the new routes?
- Will SOU seek to pressurise Eastleigh Borough Council to give them more hours? Can the government influence the aircraft used? Bigger aircraft may require larger runways?
- Big problem in planning and airports. Giving Local Authorities more powers would help represent community interests but at present we have no power to implement behavioural change. This is true for both preventing developers building on unsuitable areas and around airports regarding noise.
- Is it better for more people affected less often than more often? Which is better? If you have an array, then more people could be affected, but impact less frequent and less intense.
- We pay 50m per year for national parks. There are views that some low flying aircraft are affecting this. Suggested that flying over the sea was more appropriate than our protected landscapes.

5. What do you consider to be particularly important when developing design principles that concentrate on new technology? Are there any other themes linked to technology that should be considered when developing design principles?

- Reluctance to move to new technology. Will there be sufficient training? Will airlines be reluctant?
- New technology is great, but what is your back-up?
- Should there be measures to ensure that operators are forced to use technology? Who forces the change?
- Aircraft manufacturers – will they be able to provide planes which can deliver the steeper gradient? Manufacturers of aircraft must conform to standards. Are NATS

and airports working together to ensure that aircraft operators meet these new climbs? Who is forcing this change through?

- Technology preventing emissions are required – requirement them to use new technology to keep emissions down and deliver benefits to the community.
- Does the airport authority demand only use aircraft that can use this steep ascents and descents?
- We need to see in transparent manner showing how technology can deliver. If that technology is not adopted, then why?
- Will there be a phasing in of us of new technology for airliners – consider that small airliners have small margins? Different airports have different needs in this regard.
- With increased capacity, do you also need to consider the land capacity?

6. What do you consider to be particularly important when developing design principles that concentrate on airspace integration? Are there any other themes linked to integration that should be considered when developing design principles?

- Other airspace users are important also e.g. air ambulance and police helicopter. Issue that they often make most noise.
- Suspect there needs to be clear govt policies on these e.g. drones. Lots of people have private licenses.
- How are small aircraft going to be handed over from one airport to another when they don't climb above 7,000ft and into NATS airspace?
- If SOU air grab, they may be shutting down GA corridors - conscious that we may need to have flexible use of airspace.
- Military need to be considered. Military airspace is limited now, but often military are not there. Is there not a point regarding military being able to access military space that is not being used?
- Resources to account for increased integration or separation need to be accounted for by SOU.
- Is there an overlap between traffic management between SOU and Bournemouth Airport – who is responsible for managing these below 7,000 feet?

7. What do you consider to be particularly important when developing design principles that concentrate on resilience? Are there any other themes linked to resilience that should be considered when developing design principles?

- ACP should be reviewed every 15 to 20 years or if there is a fundamental change of technology there should be a review of the airspace. There should be a principle for a series of triggers which triggers a review – not set in stone until 2040. This set of triggers will make it more resilient.
- Flexible airspace – during an emergency the flexibility should be enhanced.
- Hacking is an issue – we need security of constant reviews to ensure that we can tweak when new technology and concerns can be adapted. A back-up to satellites is needed.
- Theme should be resilience and responsiveness – saying nor fundamentally changing things means system could become obsolete with new technology. Different

protocols are needed for different types of situations and resilience. There needs to be a universally understood protocol for managing complete system failure mandated by government.

- Question of whether every pilot has the technology and radios to communicate with ATC.

Table 2

| Organisation |
|-------------------------------------|
| Hampshire Chamber of Commerce |
| New Forest District Council |
| Twyford Parish Council |
| Winchester City Council |
| Winchester City Council |
| Eastleigh Borough Council |
| South Downs National Park Authority |

* highlighted red denotes did not attend

1. What do you consider to be particularly important when developing design principles that concentrate on safety? Are there any other themes linked to safety that should be considered when developing design principles?

- News in the media around pilots being overworked – Ryanair pilots on strike. How can this be affected?
- Routes are selected. Are we making provisions for planes to crash into greenfield sites etc.? Will safety be affected as a part of trying to move routes?
- GPS is much more accurate than industry standard of 1 nautical mile. Design considerations must account for different models of aircraft and their ability to manoeuvre etc.
- Talked about inbound delays taken in the air to avoid stacking.
- Design up to 7000ft takes precedence as it is the trickiest to design and more impactful to people below.
- Got to reduce impact on the local national parks.
- Increasing capacity increases risk. How do we decide on risk factors that are manageable? If GNSS drops, what is the back up?
- If there are lots more planes, will they be tightly bunched together? This creates a safety risk if there are more planes. SOU doesn't have extra runway like other airports.

2. What do you consider to be particularly important when developing design principles that concentrate on capacity? Are there any other themes linked to capacity that should be considered when developing design principles?

- It's all linked to safety. You need capacity but only if safety isn't compromised. There must be a point of saturation within areas of airspace. Risk assessment needed.
- Delays have knock on effects. Impacts need to be managed.
- What is the risk associated with their SOU staff numbers? Will there be a transition to new technology? An employee of Trax confirmed NATS are looking to bring in 'systemised' routes through new technology. ATCO's to manage traffic flows rather than individual aircraft. ATCO's ability to manage remains the biggest block to increased capacity.

- The switch to satellite navigation means that there will be issues, even if there are fewer errors than just relying on human perception.
- Impact on community needs to be managed. Just because you can fly – should you? This will cause noise, pollution etc. the feeling of intrusion needs to be managed. [Participant] concurred that this is [their] role. For borough councils, this has a knock-on effect to infrastructure on the ground. Economic benefits can be great though. Flying isn't going to go, and capacity can be improved on the roads.
- How does this programme tie up with other airports growth strategies? Number of flights has dropped the last few years at SOU? Will air traffic be moved from London towards other regional airports like SOU.
- Will this tie in with other technology and gliding clubs etc? What control over other aircraft do they have?
- More throughput – does that mean less space for emergency services in the air? How does it affect them?

3. What do you consider to be particularly important when developing design principles that concentrate on flight efficiency and environmental performance? Are there any other themes linked to efficiency that should be considered when developing design principles?

- There needs to be a strategy around emissions going down and passenger numbers going up.
- Dealing with rural areas means that we need to be careful in how we work with the smaller areas. SOU in between two national parks, near the Itchen with lots of receptors to pollution etc. where does unburned fuel, rubber particles go? This needs to be accounted for as part of any ACP and in particular - light path changes.
- Majority of emissions come from cars and others on ground. Aircraft so high up dissipates and it can't be measured, which makes it tough to decide how to counteract as we don't know the true facts and figures. Has indirect effects on emissions with cars travelling to the airports etc. This needs to be considered.
- Different plane types must run at different efficiencies. Smaller planes aren't tied into routes for landing. Smaller planes don't have GPS tracking.
- Local air quality only counts to 1000ft. Houses within the impact range are impacted but beyond that at a higher height, it isn't measurable. If planes can get up quicker, then the emissions saved are quite a lot. If we can avoid stacking and holding through slower and more targeted journeys, this would help. Floating up to the approach would save fuel. Moving the window would reduce emissions. Controlled airspace needs to be expanded to help with this.
- At what point does increasing the flight numbers change the emission levels and particulates overall?
- Planes need to be filled to ensure appropriate emissions.
- Type of aircraft also an issue.
- Model of approach on roads in certain zones happen in town/cities. Can this be replicated or incentivised in the sky? Needs to be assessed.

4. How should the minimising the total noise impact of overflights and the difference between multiple route options and avoiding areas that were previously unaffected be traded off against one another? Are there any other themes linked to noise management and mitigation that should be considered when developing design principles?

- Double glazing in houses, does this help?
- Ecology – are quicker ascents/descents good for it?
- Minimum distance from runway before planes vector for safety. At what point does it happen?
- A town affected by noise, using a precise flight path, is it right to spread the load? Do we keep it in same source? Making sure not flying over residential areas? NPs are tranquil. People and tourists don't want to see or hear planes when they visit. They need to be protected. At what altitude can planes fly over the national parks? Itchen valley – if you vary the flights slightly you can reduce the impact.
- Decreasing the frequency of the impact as opposed to removing it. Someone is always going to be impacted. People are amenable to a bit of noise if they know the frequency. With the summer weather, it can be difficult with the windows open and more flight numbers. Different aircraft have different impacts. Jets aren't noisy at a slightly higher altitude. This becomes irritating as house used to be quieter and now there are more planes. This can affect value on property and personal health.
- Airport's master plan shows that bigger planes could be used to reduce flight numbers. More modern and quieter aircraft need to be in use.
- Places that aren't currently affected, introducing impacts to them now could be very bad. Tranquil surroundings need to be protected for all, not just those that live close etc. seeing planes can put people off NPs. You won't be able to sell that to everyone. People are already impacted. Lessening the impact for more people need to be accounted. People who are in their homes can't get away from it. If you're in a National Park - you can. Balance needs to be struck.
- Principles need to be – get planes up as quickly as possible. Descent need to be quiet and floating in to avoid noise, though quicker climbs could increase noise in local areas. We need to consider the noise impacts of quicker versus slower climbs/descents.
- Less impacts on the south side due to the water. It's hard to spread the impacts.
- Expectation that if you live close to airport – you'll have lots of noise near you. Varying the impacts is worrying. People who are used to it are used to it.

5. What do you consider to be particularly important when developing design principles that concentrate on new technology? Are there any other themes linked to technology that should be considered when developing design principles?

- Fines for airspace infringements. Can technology be used across all planes?
- Different classes shouldn't be flying in certain areas.
- Technology is the reason for change and needs to be used. Also means that the change can be impactful. Will this technology be used across all planes?
- At what stage do pilots or ATCOs move in? People need the ability to step in if tech fails. You're either fully autonomous or not – based on studies. Blended tech with humans is an issue. This might be different for long haul vs short haul. If it fails what

happens? Are there any themes that need to be considered as a result? Will it affect safety? Will technology systems affect the local community?

- New technology will mean more innovations for air quality. Noise mitigation and safety through tech. Will these tech improvements be given to local communities or just on planes?
- Need to safeguard against terrorism and human negligence. Safety mechanisms need to be overridden in case of danger.
- If you have a system that doesn't work in the EU, then that would be an issue. Is Europe going through the same process? An employee of Trax talked through the different countries in the EU and what is happening. NATS work with the ATCs in other countries using standard agreements. SOU are looking for flexibility to help each other out. As it moves further on, there needs to be accessible information handed over. We need full visibility as design principles get developed. Needs pictures and laymen's terms where possible.

6. What do you consider to be particularly important when developing design principles that concentrate on airspace integration? Are there any other themes linked to integration that should be considered when developing design principles?

- This is tricky as gliders and other GA aren't using latest technology.
- [Participant] has a private pilot's license and there used to be a mixed airspace. Feels now there needs to be more segregation – very out of line with other pilots but feels this is crucial for safety reasons. As tech improves things need to change. The mixing of technologies won't work, and airspace segregation needs to occur as a result. Shared airspace is hard to maintain.
- Cost element needs to be accounted for. Local airfields won't cost much to land in. You need segregation at major airports.
- Minimum standards, technology standards, integration issues with different classes of aircraft. Public won't find safety risks acceptable. Potential impacts are catastrophic. This is in relation to a commercial airport, safety is paramount. It only takes one accident for it to go wrong.
- Military airspace needs to be accounted for. How do you regulate and enforce breaches that occur?
- Drones are unregulated and need serious attention. They are developing very fast and their range is crazy. What happens in the cases of airspace infringement?
- Technologies cannot mix. How can hot air balloons be managed? They don't have the manoeuvrability of light aircraft etc.

7. What do you consider to be particularly important when developing design principles that concentrate on resilience? Are there any other themes linked to resilience that should be considered when developing design principles?

- Need extra capacity. Technology will change and needs to be accounted for. SOU needs to design for both future capacity and additional resilience.
- Resilience needs to be beneath safety and environment in terms of importance. Technology can mitigate other things; they should be able to fly through low cloud and land safely. If tech can help to avoid weather etc. then this will help.

- Convenience and public safety are different issues. Planes can be slowed earlier in journey through good scientific data. Does safety set resilience or does resilience set safety?
- Are ground operations resilient?
- What is the resilience of the supporting aviation industry? Personnel is a key thing.
- How does Brexit affect resilience? Different satellite systems etc. It's one of the only worldwide standardised systems to increase safety lots.
- SDNP is an international dark sky reserve. No planes to go over. You can see milky way with the naked eye. Please avoid the area with planes. There should also be restrictions around renewable energy sites – due to glare and flying close etc.

Notes from summary round up

Once all tables had concluded their group discussions, a representative from each table was selected by other members on their table to present the highlights and key themes to their discussion, referring to each design theme. Each table was asked to include any other themes they feel need to be considered as part of this process.

New themes for consideration

- Zero carbon by 2050 is a new government commitment and ecology needs to be considered as part of this process. This warrants its own theme and principle. In terms of future – it seems odd to say this cannot change and then see fourth industrial revolution and technology change.
- Security needs to be considered, potentially as a separate item. We have seen major multinationals suspend operations with date loss – if they are wrestling, we need to consider it.
- South Downs National Park is a dark skies reserve. You can see the milky way with the naked eye from parts of the national park – ergo we do not want to see any planes flying overhead. Would like to see this recognised.
- Solar farms and wind farms are restricted due to radar and glare – is there potential to removing certain restrictions on renewable energy locations?
- General project management – validation of success – it is down to airports to manage sub-7k – but how do airports manage the success of this? E.g. how do they validate whether they have managed it properly in environmental terms? Do we need success criteria?
- Need information in a form that is understandable – especially for when this becomes public – need to see contour mapping – CAA asked us to provide information which is simple enough for folk to understanding (we will have to consider whether our materials will be simply enough to understand?)
- Will the airspace be changed before or after expansion of terminal space? Airspace change needs to be in place before Heathrow expansion takes place. Heathrow plans to expand by 2026.

Table 1 Summary

Safety

- Geography of region. Balance between high populations and lower populations.
- Height of structures and safety margins. How do buildings interact?
- Unknown aircraft interacting with airspace (emergency services, military and UAVs)

Capacity

- There needs to be safety net for diverting capacity when needed. How do they divert and who do they go to?
- Opportunity of cost – economic and assessment of the costs and what they outlay? Drive for capacity doesn't limit the deliverables on the ground. Will it gridlock local towns?
- Other limiting factors - runway
- Ecology vs future growth aspirations – 2050 zero carbon agenda for the government. Where does the area see itself?
- Fundamental – is air capacity responsible to change?
- Will there be barriers to local development as a result of any ACP
- Knock-on local effects of logistics company expanding etc.

Flight efficiency and environmental performance

- Emissions are as important as noise. Pronounced in our area, dense population.
- Why 1,000ft – why does air quality only matter below that?
- Certain areas are focusing on freight, passengers etc. – broader and cleaner infrastructure requirements need to be accounted for.
- Hard to separate ACP from airport master plan. Needs to be clearer understanding portrayed by SOU.
- Local communities will need to be communicated with to understand how impacts will be spread. Emissions need to be listed as part of that discussion.

Noise

- Is there a benefit to having fewer people getting more exposure or the exposure getting split out between them? In different areas of Southampton, trade-offs might be difficult as people generally get used to things, especially with airplanes getting quieter over the years.

Technology

- Security a big concern and needs to be thought about.

Integration

- Do you have an intensification of existing flight paths or not? Increase of air capacity, this might reduce the overall impact. Restricting the flight paths is preferred amongst this table following the S106 agreement that was signed between SOU and EBC. Having managed restrictions in flying hours is seen as favourable. The process in place is well structured currently.
- SOU have never asked to work outside the S106 agreement. We need to test that opinion by going to the wider public. Change management needs to be reflected on from previous events. Lessons learnt and engage earlier.

Resilience

- Local transport network not currently catered towards any future growth. Upgrades need to occur.

Table 2 Summary

Safety

- Safety is paramount. Technology – is it resilient? Do we put all our efforts into the one GNSS technologies? Does the industry have the capacity to deliver in future and now?
- Need ground facilities and staff to cope.

Capacity

- When designing the airspace, you need to account or ground facilities. Members of staff, location of taxi runway etc. Will the local structural links accommodate this?
- Flow of people - weakest link needs to be addressed i.e. getting people to the airport. Capacity outside of the airport needs to be addressed also regarding local transport network.
- Delays could have a knock-on effect to customers and media.

Flight efficiency and environmental performance

- Debate about air quality. Flight efficiency and overtaking the ground is a very desirable outcome. Can we remove the need to fly so low all the time?
- Aircraft efficiencies need to keep happening. Mandating certain classes of aircraft.
- Clean air zone consultation learnings – infringements can be followed up on?
- What are the impacts from increasing capacity, not just in the air but to ground based sources too? We are on the ground most of the time, how does this work? Electric buses, can they be incorporated? Increased local emissions might not come from the aircraft but will be there as a result of the airport.
- Particulates need to be carefully considered. Heavy metals from unburned fuel are dangerous and this needs to be accounted for – this has been found in areas surrounding the airport. Air quality can be affected by prevailing winds coming over from the continent. At what point do particulates increase? Data needs to be studied and actioned. Global emissions need to be accounted for.

Noise

- Damned if you do and dammed if you don't regarding moving flight paths and sharing the burden. Consult those affected as you don't want to make untested assumptions.
- Get the planes up quickly, although in counter – this will increase throttle and noise/air quality issues to locals. Can we please get the data? This will inform our decisions.
- Coming into the airport, continuous approach needs to be made a priority when landing. This will reduce emissions. Design solutions at source.
- Move the routing for those impacted heavily maybe? At what point do we say the flight routing is breaching limits for noise? Harder to manage the noise impacts if we are spreading the impact? What sort of standards do we expect?

Technology

- New technology drives the process and needs to be robust for security purposes. Again – is technology resilient and are there going to be any failsafe's?

Integration

- Integration of airspace – public perception that to be had. They expect that safety is paramount. The idea that other users aren't accounted for and can cause safety issues worries us e.g. gliders and small aircraft. You need to be able to separate aircraft effectively.

Resilience

- Resilience doesn't trump safety and environmental issues. Aviation is at the centre of the fight against global warming.
- Resilience needs to be set against the weakest link in the chain. The number of personnel on the ground will affect the airspace more than airspace changes in the air.
- Regulatory changes and laws need to be accounted for. ACPs must follow rules but maybe the rules could be changed. Fines for airspace infringement should be pursued. Automatic fines can help in the management of airspace. There is a global regulator for aviation that will strive for safety. Leaving the EU won't exclude us from all of this.

Closing comments regarding the presentation

- Early engagement has been very good. Happy that this is happening now. The earlier the engagement occurs with the public, the greater the level of understanding this will enable.
- Any developments or consultation need to lay out in both simple terms for local government/business stakeholder and the wider community.

Glossary

| | |
|----------------|--|
| <u>ACP</u> | Airspace Change Proposal / Process |
| <u>AGS</u> | AGS Airports Ltd |
| <u>ANSP</u> | Air Navigation Service Provider |
| <u>ATC</u> | Air Traffic Controller |
| <u>ATM</u> | Air Traffic Management |
| <u>ATZ</u> | Aerodrome Traffic Zone |
| <u>BOH</u> | Bournemouth Airport |
| <u>CA</u> | Civil Aviation |
| <u>CAA</u> | Civil Aviation Authority |
| <u>CTA</u> | Control Areas |
| <u>DME</u> | Distance Measuring Equipment |
| <u>EC</u> | Electronic Conspicuity |
| <u>GA</u> | General Aviation |
| <u>GBAS</u> | Ground Based Augmentation System |
| <u>GBN</u> | Ground Based Navigation |
| <u>GNSS</u> | Global Navigation Satellite System |
| <u>GPS</u> | Global Position System |
| <u>ILS/MLS</u> | Instrument/Microwave Landing System |
| <u>IOW</u> | Isle of Wight |
| <u>IRT</u> | Instrument Range Testing/Test(s) |
| <u>LARS</u> | Lower Airspace Radar Service |
| <u>MATZ</u> | Military Aerodrome Traffic Zone |
| <u>NATS</u> | National Air Traffic Services |
| <u>NAVAIDs</u> | Ground-based navigational aids |
| <u>NDB</u> | Non-Directional Beacon |
| <u>PBN</u> | Performance-based navigation |
| <u>SON</u> | Statement of Need |
| <u>SOU</u> | Southampton Airport |
| <u>UHF</u> | Ultra-High Frequency |
| <u>VFR/IFR</u> | Visual Flight Rules/Instrument Flight Rules |
| <u>VOR</u> | VHF (Very High Frequency) Omni-Directional Range (VOR) |

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|--|----|
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Document Overview

This document is an overview of a workshop held with Community and Interest stakeholders on Monday 1st July 2019 regarding the development of design principles for a change in Southampton Airport's airspace. Attendees included community stakeholders representing local schools, residents' associations, the Campaign to Protect Rural England, and the National Farmers' Union.

This document details what potential themes and issues were raised for consideration as part of the development of Southampton Airport's airspace design principles, for this particular workshop.

Please note that all conversation was summarised in the interests of transparency, although not everything stated by attendees was always applicable to Southampton Airport, the ACP or the Design Principles.

Workshop objectives

The objectives of the workshops were to:

- Increase awareness and understanding a-mong participants about the need for airspace change and of the process for bringing it about.
- To gain an understanding of what key stakeholders believe are the main constraints and opportunities connected with the use of airspace and any proposed changes to airspace use.
- To provide Southampton Airport with an insight into participants perspectives as to what factors should be considered when developing the design principles around changes to airspace.
- To develop a forum which can meet further to assess views on how the above findings are being used to shape and frame the design principles and to enable effective engagement throughout the Airspace Change Process (ACP).

Attendees representing Southampton Airport

SOU attendees

- Employee 1: provided an introduction, giving a high-level overview of the ACP process and welcoming all stakeholders present.
- Employee 2: provided additional information to stakeholders' questions where necessary, both in response to the presentation and when matters arose that required SOU input during the design theme discussions.
- Employee 3: observed the session and provided additional information in response to stakeholders' questions, where necessary.

Trax attendees

- Employee 1: presented in greater detail how SOU will develop a set of design principles for Southampton Airport's airspace change. They presented technical details surrounding the need for the ACP and was also there to provide additional information to stakeholders' questions, both in response to the presentation and when matters arose that required SOU input during the design theme discussions.
- Employee 2: manned the presentation and took notes throughout the summary discussion. They also there to provide additional information to stakeholders' questions, both in response to the presentation and when matters arose that required SOU input during the design theme discussions.

BECG attendees

- Employee 1: facilitated the room discussion and ensured that all key objectives were met throughout the session.
- Employee 2: facilitated the discussion on Table 1 and minuted the feedback. Asked questions to facilitate the discussion when appropriate.
- Employee 3: facilitated the discussion on Table 2 and minuted the feedback. Asked questions to facilitate discussion when appropriate.

Workshop format and design themes for discussion

As highlighted above, the presentation was given by an employee of Trax, who highlighted the seven themes that were to be outlined and discussed throughout the workshop. They also asked stakeholders at the end of the session if there were any additional themes we should consider. The initial seven themes discussed were:

- Safety
- Airspace capacity
- Flight efficiency and environmental performance
- Noise management and mitigations
- New technology
- Airspace integration
- Resilience

The following questions were asked regarding the relevant theme:

Safety

1.1. What do you consider to be particularly important when developing design principles that concentrate on safety?

1.2. Are there any other themes linked to safety that should be considered when developing design principles?

Airspace capacity

2.1. What do you consider to be particularly important when developing design principles that concentrate on capacity?

2.2. Are there any other themes linked to capacity that should be considered when developing design principles?

Flight efficiency and environmental performance

3.1. What do you consider to be particularly important when developing efficiency/environmental performance principles?

3.2. Are there any other themes linked to efficiency that should be considered when developing design principles?

Noise management and mitigations

4.1. How should the minimising the total noise impact of overflights and the difference between multiple route options and avoiding areas that were previously unaffected be traded off against one another.

4.2. Are there any other themes linked to noise management and mitigation that should be considered when developing design principles?

New technology

5.1. What do you consider to be particularly important when developing design principles that concentrate on new technology?

5.2. Are there any other themes linked to technology that should be considered when developing design principles?

Airspace integration

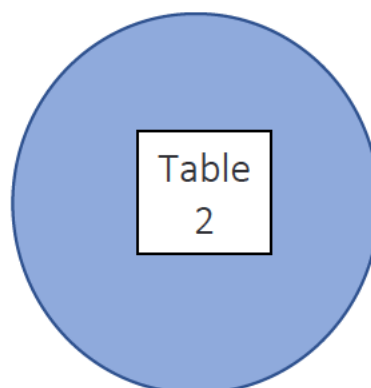
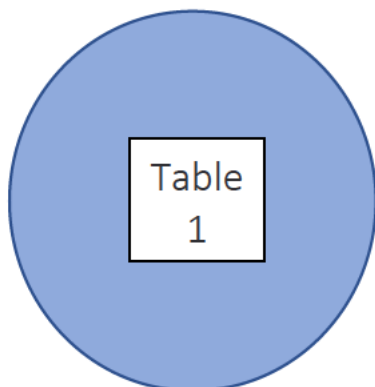
6.1. What do you consider to be particularly important when developing design principles that concentrate on airspace integration?

6.2. Are there any other themes linked to integration that should be considered when developing design principles?

Resilience

7.1. What do you consider to be particularly important when developing design principles that concentrate on resilience?

7.2. Are there any other themes linked to resilience that should be considered when developing design principles?

Table Plan and List of Attendees

| | | <u>Organisation</u> |
|----------------|----|---|
| TABLE 1 | 1. | Southampton Commons and Parks Protection Society |
| | 2. | Bitterne Park School |
| | 3. | Campaign for the Protection of Rural England, Hampshire |
| | 4. | Natural England |
| TABLE 2 | 5. | National Farmers Union South East |
| | 6. | Wickham Society |
| | 7. | Cherbourg Primary School, Eastleigh |
| | 8. | Townhill Park Residents' Association |

Notes from presentation

Following a short introduction from an employee of Southampton Airport, an employee of Trax asked the room if they had anything to add or any questions.

An attendee asked if there would be an increase in air traffic. An employee of Trax stated that the assumption is that there will be an increase in total flights. The attendee followed by asking to what degree will the new routes be saturated. The employee of Trax reassured the audience that there will be a targeted discussion about traffic growth and capacity, at a later stage during the workshop.

An attendee asked if anything was yet set in stone in terms of outcomes or decisions. An employee of Trax described the CAA process, how this is the first stage of that process, and how SOU are at an information gathering stage.

An attendee stated that as the general public are told that there are cleaner better aeroplanes, are SOU anticipating more or less aeroplanes as part of the ACP. An employee of Trax stated that the government's assumption is there will be a growth in the total number of flights, but newer aircraft are typically quieter and cleaner emissions wise. The attendee raised that people may be concerned about new flight paths caused by more planes in the sky. The employee of Trax quoted and referred all present to numbers within the FASI-South document on the CAA portal.

An attendee asked if the session would be focused only on SOU or other airports as well. The employee of Trax stated that the main focus is on developing the design principles for SOU's airspace change. Given the fact that 16 airports in southern England (including SOU) are planning to redesign the arrival and departure routes that they are responsible for (and the associated controlled airspace between the ground and 7000ft), and in the same timeframe NATS are planning to redesign the route network above 7000ft, there are many complex interdependencies that must be taken into account as part of the SOU airspace change.

An attendee asked if SOU will be using newer technologies to manage airspace and air traffic, and whether there will be a model that links all airports listed within FASI-South. An employee of Trax confirmed that newer technologies will be used; that differing models for NATS airspace are being produced; and that the current models will be developed as each airport gets deeper into their ACP process.

An attendee asked if there is any truth to moving aviation consumers (e.g. Business, tourism and logistics) to different airports based on their needs. An employee of Trax confirmed that this does happen in Europe but won't happen in UK as all airports are privatised and there is no central planning around different types of consumer – freight, commercial, tourist etc.

Following these questions, the employee of Trax continued with the presentation before setting up the forum for discussion.

Notes from each table

Each table had a member of staff from BECG there to facilitate and record any issues relevant to the themes discussed. These notes are shown below in relation to each design theme for consideration.

Table 1

| |
|--|
| Organisation |
| Southampton Commons and Parks Protection Society |
| Bitterne Park School |
| CPRE Hampshire |
| Natural England |

1. What do you consider to be particularly important when developing design principles that concentrate on safety? Are there any other themes linked to safety that should be considered when developing design principles?

- Safety is paramount and comes first.
- Want to know about environmental risk, risk of noise, risk to sites. Where there are going to be environmental impacts, we would be looking at environmental impacts and compensation, but would not be saying no if it is the safest.
- Concern regarding schools under flight path. Clearance a main concern. Is there any chance that modern technology will allow the aircraft to rise faster safely?
- Consider the possibility of continuing to have approaches over the motorway.
- Approaches and departures – surely, we are constrained in terms of design options by what NATS decide to do with their airspace above 7,000 feet? If you want to climb faster, what happens above 7000ft may add constraints.
- Should the airport acquire more airspace vertically – what happens if they are coming into land? They are coming in a straight line – they should use a straight route in and out. Arrivals are less of an issue as they turn. It would be beneficial to start the approach further down (earlier and higher than 7000ft).
- Procedures of other airports will have an impact on this ACP.
- Key safety issue is how airspace controlled by NATS interacts with airspace below 7,000 ft. This will limit what can be done.

2. What do you consider to be particularly important when developing design principles that concentrate on capacity? Are there any other themes linked to capacity that should be considered when developing design principles?

- Aviation industry only thinks about capacity. It would be better to come by train and change lifestyle. This is a style of living we don't really want, given the current concerns around climate change.
- Massive issue with sustainability and climate change. How much longer can you keep expanding and enduring long-term impact? Any contribution to climate change needs

to seek to mitigate impacts elsewhere. What else can SOU do to reduce carbon footprint? If we are making flight paths more efficient then we could see net benefit. We need to see environmental figures.

- We are assuming this capacity demand will continue and that government could not put constraints on increase in air traffic. Is this compatible with government's targets on climate change?
- The least that can be expected is a requirement to offset carbon emissions. More extreme would be setting limits on air traffic.
- If SOU cannot expand then the airspace may not be used. Demand on the ground is the reason for growth in capacity. Local demand is pushing need for expansion. You could increase airspace capacity, but it could never be used. Current model not environmentally friendly or sustainable – change to airspace is a good idea, but you may not need to fill it.
- Not against prosperity of the airport given the economic role it plays but needs to be properly integrated and sustainable. Local traffic network needs to be more efficient. Needs to account for M27 and further expansion through SOU means more people getting to it, either by rail or by road, already with constraints.
- The issue of bird strikes needs exploring from a wildlife protection and safety perspective.
- Mitigations and compensation for people who are overflowed are crucial. At present, there is a gap between arrivals. If handling capacity increases, then SOU could have a constant series of arrivals.

3. What do you consider to be particularly important when developing design principles that concentrate on flight efficiency and environmental performance? Are there any other themes linked to efficiency that should be considered when developing design principles?

- Nitrogen deposition on Solent coastal protected sites from development and air quality, where NO_x is one of the main components on environmental impact. Recent case law on this issue in EU legislation – if sites are already failing their objectives, you cannot legally increase this problem without adding mitigations. Will need full air quality impact assessment and monitoring of nitrate deposition.
- Question the idea that air quality is only an issue below 1,000 feet. Saying that steeper climbs are usually more fuel efficient is “weasel words”.
- Steady acceleration is better for cars, not sure about planes. More noise and emissions are generated by throttle, but for shorter amount of time – is this the same for planes?
- Hope SOU don't renege on their agreement to not fly at night.
- If you are increasing capacity in airspace, how many flights could this bring in to SOU? How many flights could you get in if this was all made more efficient?
- What does effectively mitigate environmental performance mean? What could feasibly be done to mitigate aircraft noise?
- Residents and parents of children at school regularly complain about noise. People chose to live under a flight path but if you have been there for some time, then the impact is real. 2,000 students under flight path every day.

4. How should the minimising the total noise impact of overflights and the difference between multiple route options and avoiding areas that were previously unaffected be traded off against one another? Are there any other themes linked to noise management and mitigation that should be considered when developing design principles?

- With motorcars we are taking old cars off the road. Should we not do same with planes? If they are making more noise beyond certain level, then they should be prohibited.
- It isn't good enough to just assume that aeroplanes get quieter over the years. This needs to be verified.
- People who have had flight paths thrust onto them will be less willing to accept the change.
- If you bend routes in and out, you can add more capacity as SOU's capacity is limited now. How much can you bend this? How quickly and how late can the descent happen? You could change route in, but how late can you line up with the runway? If you need 2km of straight-line approach, this will mean no real change to impacts of people nearby.
- What is the final point in approach that planes can vector before approach becomes fixed? Need to be clear about the breadth of the arrival and departure swathes, otherwise there will be a widespread public reaction of noise everywhere.
- We need more technical information on how late a plane can turn into approach to Southampton e.g. can a plane follow the M27 before suddenly turning to approach SOU? However, routes need to be comfortable for airline passengers.
- Regarding environmental impact of noise, it depends on how they change routes over Solent coastal sites as a lot of EU designated sites near SOU and Solent with special protection status. 10% of Brent geese population overwintering on sites which use high tides land inland – there could be adverse disturbance issue of birds when feeding and roosting. This needs assessment – anything under 69 decibels is ok. If routes change around coastline then this may be ok. Geese have established flight paths across Solent which are protected. Environmental Impact assessment needed.
- Noise does have an impact on open spaces which are relatively unaffected e.g. Southampton Common. Currently enjoyment of open space an issue.
- Aviation industry does not hear the noise that residents hear from aircraft. Residents need to be heard.

5. What do you consider to be particularly important when developing design principles that concentrate on new technology? Are there any other themes linked to technology that should be considered when developing design principles?

- The wider public good must be the top priority. If uses of new technology imposes public burdens, then this is undesirable.
- Seeking improvements in noise and air quality through technology, this could be a benefit to school pupils.
- If you live within a mile of SOU, is technology going to impact meaningfully? From local level without examples difficult to say, if new technology means quicker and quieter planes.

- One would anticipate the present trend in noise reduction continues as technologies improve. Aircraft flying today are likely to be flying in 15 years' time. We don't want old planes flying if they are polluting the air.
- Electric aircraft is something to be aware of. If the power for aircraft different then the question is quite different. We need information on the new technology.
- There will always be an impact somewhere. There needs to be an acceptance of impact somewhere because of benefits to the wider public E.g. benefits to people and environment. Communicating the benefits to residents could mediate the potential backlash over overflights.
- It's currently cheaper to go by plane than train, which is an environmentally retrograde step. An issue which should be addressed.
- Weather must affect the ability to fly these routes. Can they be managed with weather impacts? Do they have to stick with routes given weather?

6. What do you consider to be particularly important when developing design principles that concentrate on airspace integration? Are there any other themes linked to integration that should be considered when developing design principles?

- If you can integrate this would avoid delays and knock-on effects. This is a benefit because other airports all owned by other companies and can affect one another. Anticipate that larger players can affect smaller players. Not sure how this will work in practice?
- Are airports forced into this, or are they keen to get involved? Seems odd that airports cannot affect NATS airspace design changes above 7,000ft.
- Bournemouth Airport seems underused with owners with a dubious sense of future – 3 departures a day seems inactive – they are in a different market. Local infrastructure around BOU is very bad – aware that this limits their integration with SOU.
- Might be helpful to have knowledge about other local airports as part of this process.
- Government policy is to encourage regional airports, but the industry is largely unregulated. Concerns here regarding unhealthy competition, citing the potential for Heathrow 'air grabs / landgrabs', which could have an unhealthy competition impact on regional airports and general aviation. Interested in Competition and Markets Authority assessment of Heathrow and the impact on competition.
- At SOU GA traffic is much noisier than commercial airliners. Tranquillity in the New Forest is impacted by GA in a big way.

7. What do you consider to be particularly important when developing design principles that concentrate on resilience? Are there any other themes linked to resilience that should be considered when developing design principles?

- I don't think resilience is impact of airspace, you could put extra 1000 planes in the sky and still work. The issue is local infrastructure – you must consider resilience of roads and rail. Airport could have new taxiway and terminal for local resilience. Should you consider capacity and resilience outside airport gates on ground? Commercial port terminal is a concern as it grows and is putting rail infrastructure

under pressure. Increase in port rail traffic and increase in airport rail traffic is in conflict.

- Change of airspace might mean you can land in bad weather.
- Airspace change and masterplan are separate which isn't clear. Is expansion possible because of airspace change?
- Process seems transparent. Once ACP is confirmed, it shouldn't be changed for a long time. Certainty around this would be good.

Table 2

| |
|--------------------------------------|
| Organisation |
| NFU South East |
| Wickham Society |
| Cherbourg Primary School, Eastleigh |
| Townhill Park Residents' Association |

1. What do you consider to be particularly important when developing design principles that concentrate on safety? Are there any other themes linked to safety that should be considered when developing design principles?

- SOU isn't unique as an airport but feel that planes are very close to M27 and numerous cars on approach. Increased traffic in the air and ground is a concern for safety as this increase's chances of collision.
- Location of airport means that traffic will almost always overfly M27. Use of new technology has already been implemented for south of airport approaches and seeing some improvements already.
- What are the initial risks? Need more information. An employee of Trax stated that safety assessments are always undertaken first. CAA pushed for change to involve community at an early stage to include health as part of safety discussion etc. following learnings from other consultations. Discussing risks more broadly – workload, too much traffic at one team vs. vectoring, infringements into airspace and lower staff resources, flight levels not being adhered to 'level busts'.
- Near misses with drones are currently underestimated, having seen this in a news report.
- Concerns of dropping the 'health' from health and safety as listed within the design themes. Should this have happened?
- Children in my school (Cherbourg Primary) can't open windows in the summer due to noise from the aeroplanes. This affects teaching and the concentration of children as it can get hot in the classroom.

2. What do you consider to be particularly important when developing design principles that concentrate on capacity? Are there any other themes linked to capacity that should be considered when developing design principles?

- Capacity vs environmental performance. This will inevitably clash.
- Impacts on the ground network. Higher air movements in the air mean higher movements on the ground to get to and from the airport. Is this being considered?
- Bus/rail movements need to be improved. Can SOU affect this or does it need to come from someone else? From Wickham and other South Downs areas you can only get to SOU via car or taxi. Increased capacity – does this mean increased night flights? This would be a concern.
- Edinburgh a great example of how integration can work. Trams are great for integration.

- RE natural capital - can increased growth be accommodated when other developments are occurring so fast? Will capacity be scoped appropriately? What are the reasons for capacity increase? Not entirely clear.
- 30% of flights from SOU are to Edinburgh, Manchester and Amsterdam. SOU looking to be carbon neutral by 2030. Getting people to fly in the UK far away vs car – plane more environmentally friendly. People automatically assume that flying the worst form of travel, but it can sometimes be better for the environment, particularly for local air quality.

3. What do you consider to be particularly important when developing design principles that concentrate on flight efficiency and environmental performance? Are there any other themes linked to efficiency that should be considered when developing design principles?

- Regarding planes landing in south direction, you can bring planes down fast following the hill to reduce concentration of pollutants
- Environmental performance must be of the utmost priority.
- Last year SOU had lower number of flights but the same number of passengers on previous years. Reducing the number of flights accordingly will help environmental performance.
- There mustn't be a greater environmental impact.
- Impacts on the ground need to be considered due to extra pollutants caused by movements to and from airport before and after travel.
- More passengers at SOU will be taken from other airports. More development is because of need. Planes on the IOW tend to fly at lower altitudes. Greater regulation and restrictions from government needed on drones to not impact on flying operations. Because of the delays this may cause, we don't want planes waiting on the ground and in the sky, creating more emissions. Offsetting of other developments on the ground could be proposed. How can impacts be spread across the locations of the other 16 airports listed in FASI-S? The areas around Southampton are already saturated.
- Between Fair Oak and Emsworth there have been 100,000 houses designated to be built over the coming years. In contrast, SOU is a private business and their forecasts will often reflect these housebuilding numbers.
- Cost of flights at SOU are often more expensive, resulting in having to drive to Gatwick to fly at a cheaper cost. This isn't good for the environment. Could there be a way to ensure that locals get cheaper flights?
- Needs to be greater policy direction from Government. Could there be more pressure on NATS or CAA to make better all-round decisions?
- New technology will help in collaborative efforts and develop better public transport methods etc.

4. How should the minimising the total noise impact of overflights and the difference between multiple route options and avoiding areas that were previously unaffected be traded off against one another? Are there any other themes linked to noise management and mitigation that should be considered when developing design principles?

- Poultry is a big issue with flight paths. Poultry really panic around flight paths. New flight paths need to consider poultry shed locations.
- Can we use technologies at source (poultry sheds) for white noise to counteract this? If you drown the noise of planes out with a steady background noise could this help?
- Areas of countryside that is likely to be affected by climb gradients will be reduced by new paths which is good.
- SOU is restricted geographically due to hill location.
- Noise does affect the school and when I'm on the phone at my house. Is there a way this impact can be mitigated?
- Aviation industry is currently looking to get all planes electric. This would reduce noise. Changes of planes have reduced noise and impact somewhat now which is pleasing.
- SOU need to extend the runway due to existing taxi lane/ location on the runway. Noise is a big consequence of the current conditions.
- Increase in flight numbers are a concern to my school. We would need to know the full predictions to numbers and how these numbers are formulated. Are these based on hope or verifiable?
- Impacts depend on flight numbers and 'slotting' of planes. Standards for airports mean noise levels need to be adhered to.
- Will new flight paths mean greater complaint numbers? Upgrade of infrastructure in the air means that there are more opportunities and challenges associated.
- Regarding cruise liners in Southampton - generators remain on because the Council doesn't enforce against generator use when electricity plug-ins could be used instead. Local government need to be more active in lowering their carbon footprint.

5. What do you consider to be particularly important when developing design principles that concentrate on new technology? Are there any other themes linked to technology that should be considered when developing design principles?

- Drones are a concern. The Government need to create and enforce rules regarding this. Amazon looking to use drones for delivery will be a nightmare. Airports won't like this. Government need to step in and legislate accordingly. Terrorism threat and security needs to be very important as part of this process.
- Government won't bow to pressure from pilots for 5-mile exclusion zone which is ridiculous. Laser pens are also an issue. Current variations in technology between north and south of the airport already show that GPS systems are the way forward. New technology is safer to use because it gives greater visibility to ATCs and pilots are more confident when guided by GPS.
- Difference between private companies and all airports – proactive management across the region isn't possible without commercial entities working together. Can this be addressed by the CAA, NATS or Government? Technology can help integration.

- Are pilots going to become more obsolete as a result of technology? Surely there will always be at least one person present, even as a backup. GPS is so accurate, and risk of collisions reduced.
- NATS as coordinators have ability now to shortcut routes at a higher airspace level.
- How quickly can technology be implemented for full use? Doubts around speed of implementation.

6. What do you consider to be particularly important when developing design principles that concentrate on airspace integration? Are there any other themes linked to integration that should be considered when developing design principles?

- Issues amongst different airspace users and segregation of airspace. Could we ban gliders entering controlled airspace? They can't get up there without a plane and emissions wouldn't be good. A hobby isn't as important as a functional need to get from point A to B.
- Privatisation causes issues as airports aren't really managed by a central entity. Needs tracking system which is centralised. New technologies will help safety massively.
- As roads become more congested, alternative transport methods will be sought. We need to address this issue as we are already at capacity on the ground. Trains being restricted by old technology doesn't help.
- Regarding futureproofing, will the new design last for long? An employee of Trax stated that beyond 2040, it is hard to foresee how people will travel due to changes in technology. New design will be able to accommodate future growth at airports and expansions, although that doesn't preclude this happening. Any expansions etc. would still need to go through separate planning process.

7. What do you consider to be particularly important when developing design principles that concentrate on resilience? Are there any other themes linked to resilience that should be considered when developing design principles?

- Concern around drones. When drone incident occurred at Gatwick, planes had to be diverted.
- Weather and shift patterns can be a logistical issue, not just resilience of technology – staff hours and numbers can be an issue.
- Weather during winter will be worse, and there needs to be greater planning around this. How much extra capacity do we allow? Are SOU accounting for no shows and delays etc?
- SOU have recently introduced an automatic fog measuring tool, which allows greater number of flights in trickier conditions. Satellite technology can sometimes be limited in vertical accuracy. SOU's current ILS is 1950s technology and needs upgrading; greater technology will enable flights in and out during worse weather spells. Also, automatic landings will help. As technology improves, hopefully this will improve delays etc.
- Will increase in plane numbers affect this resilience?
- Human error and terrorism are big fears for safety going forward. Technology needs to account for this.

Notes from summary round-up

Once all tables had concluded their group discussions, a representative from each table was selected by other members on their table to present the highlights and key themes to their discussion, referring to each design theme. An employee of Trax asked each table to include any other themes they feel need to be considered as part of this process.

New themes for consideration

- Lack of integration with wider transport network a real concern. The Port of Southampton is expanding at a time when local transport is already working at capacity. Increasing the capacity for flights means greater pressure on the ground.
- Will there be constraints on older aeroplanes? They should be limited if they pollute more.
- An employee of Trax confirmed that keeping older aeroplanes often isn't commercially viable to companies as they are obsolete cost wise. Secretary of State could be invited to limit certain aircraft etc.
- Climate change is a massive issue. Does this ACP at local and national level tie-in with govts commitment to become carbon neutral by 2050? Is this sustainable? An employee of Southampton Airport stated that weighing out the impacts can be tricky as reducing one impact can increase another etc. Sustainability will be included as a theme. Needs to be thought about at a regional level.
- Sustainability needs to become a separate theme.

Table 1 Summary

Safety

- As safety shouldn't be compromised as part of this process, not much of a concern from a flying point of view.

Capacity

- Whether the airspace changes will affect SOU directly?
- Will they benefit economically.
- SOU might bank capacity and not use it.

Flight efficiency and environmental performance

- Concepts affecting impacts. NOx increases in nitrogen on European protected process, prevalent issue in terms of development.
- Statement of air quality only relevant up to 1000ft needs evidencing.
- There needs to be separation of emissions at a global level vs local level.
- Migration of wildlife to be considered a part of design.

Noise

- Do you change paths or not? At what point can you bring a plane in to land? Can this be explored to bring respite to people experiencing high levels of noise already?
- How much flexibility is there as part of this process regarding gradients and vectoring?
- More information to alleviate people who don't need to be alarmed would be useful.
- Protected nature sites are an issue due to bird strikes etc.

Technology

- Good for planes in the sky, but will it help anyone on the ground?

Integration

- Air-grabbing needs to be considered.
- Bournemouth Airport is very close and needs to be thought about.

Resilience

- Local network the main concern. Impacts on local transport and community need to be really considered.

Table 2 Summary

Safety

- Impact on people living nearby. School children nearby.
- M27 nearby and planes get very close to that road.

Capacity

- Wouldn't like flights to happen at night. Impact of additional planes movements – how does this affect things on the ground?
- Needs government oversight.

Flight efficiency and environmental performance

- Welcomes the reduce of stacking.
- Concern on environment through additional capacity, will this increase emissions? Net impact should reduce, not increase.
- Fuzzy line between expansion and ACP. Needs to be clarified by SOU.

Noise

- Poultry farms across Hampshire are large in number. Planes can cause stampedes in the shed and kill livestock.
- Animals in general are spooked, changes in routes need to be properly understood. CB confirmed noise sensitive location registers to be developed before any changes occur.
- Windows must be shut in schools due to plane noise.

Technology

- The development of technology is very welcome and there are lots of benefits.
- Drones are a big concern, both because of delays and security concerns.
- Becoming too reliant on technology can result in a deskilled workforce and more open to failures and a terrorist attack.
- Lasers are also an issue.

Integration

- How do you future-proof for future technologies?
- Transport on the ground a real concern.

Resilience

- This process is positive to enable resilience for the future. Future proofing the airspace.
- Needs to account for weather.
- Major resilience concern is the local transport network and impacts on locals.

Closing comments regarding the workshop

An attendee felt the conversation was over guided and constrained. Conversation needs to be expanded and more time allowed for individuals to make a case-in point.

An attendee felt that being provided with more information before the workshop would have been helpful.

Two attendees suggested that the workshop was very open and structured. Very happy. Good engagement process undertaken so far.

An attendee raised concerns that information in the media would create a panic to locals. Another attendee stated that the media have misrepresented the airport in the past.

Glossary

| | |
|----------------|--|
| <u>ACP</u> | Airspace Change Proposal / Process |
| <u>AGS</u> | AGS Airports Ltd |
| <u>ANSP</u> | Air Navigation Service Provider |
| <u>ATC</u> | Air Traffic Controller |
| <u>ATM</u> | Air Traffic Management |
| <u>ATZ</u> | Aerodrome Traffic Zone |
| <u>BOH</u> | Bournemouth Airport |
| <u>CA</u> | Civil Aviation |
| <u>CAA</u> | Civil Aviation Authority |
| <u>CTA</u> | Control Areas |
| <u>DME</u> | Distance Measuring Equipment |
| <u>EC</u> | Electronic Conspicuity |
| <u>GA</u> | General Aviation |
| <u>GBAS</u> | Ground Based Augmentation System |
| <u>GBN</u> | Ground Based Navigation |
| <u>GNSS</u> | Global Navigation Satellite System |
| <u>GPS</u> | Global Position System |
| <u>ILS/MLS</u> | Instrument/Microwave Landing System |
| <u>IOW</u> | Isle of Wight |
| <u>IRT</u> | Instrument Range Testing/Test(s) |
| <u>LARS</u> | Lower Airspace Radar Service |
| <u>MATZ</u> | Military Aerodrome Traffic Zone |
| <u>NATS</u> | National Air Traffic Services |
| <u>NAVAIDs</u> | Ground-based navigational aids |
| <u>NDB</u> | Non-Directional Beacon |
| <u>PBN</u> | Performance-based navigation |
| <u>SON</u> | Statement of Need |
| <u>SOU</u> | Southampton Airport |
| <u>UHF</u> | Ultra-High Frequency |
| <u>VFR/IFR</u> | Visual Flight Rules/Instrument Flight Rules |
| <u>VOR</u> | VHF (Very High Frequency) Omni-Directional Range (VOR) |

APPENDIX C - Stakeholder Feedback Received

Following Workshop 1

NEW FOREST NATIONAL PARK AUTHORITY

From: [REDACTED]
Sent: 05 July 2019 10:27
To: #SOU Airspacechange <airspace.change@southamptonairport.com>
Subject: Feedback from the New Forest National Park Authority

Design principles for Southampton Airport's airspace change proposal

Thank you for inviting the New Forest National Park Authority to the above workshop held earlier this week. It provided a useful overview of the emerging proposals and the range of factors being considered.

In terms of additional feedback, as was highlighted at the workshop held on 1 July one of the particular features of Southampton Airport and its surrounding environs is the close proximity of two National Parks - the South Downs and the New Forest. The two statutory purposes of National Parks were originally established in the *National Parks & Access to the Countryside Act 1949* as:

- to conserve and enhance the natural beauty, wildlife and cultural heritage of the National Park; and
- promote opportunities for the understanding and enjoyment of the special qualities of the National Park by the public.

It is important to emphasise that these statutory National Park purposes are relevant for a wide range of relevant authorities, and not just the respective National Park Authorities. The Government has produced further guidance on this 'duty of regard' which can be found [here](#). This duty of regard, "...recognises that a wide range of bodies have a direct influence over the future of these protected landscapes...It also acknowledges that the fulfilment of protected area purposes rests not only with those bodies directly responsible for their management but also relies on effective collaborative working." Relevant authorities are expected to be able to demonstrate that they have fulfilled the duty of regard. Where their decisions may affect National Parks, relevant bodies should be able to clearly show how they have considered the purposes of these areas in their decision making. The Annex to the guidance confirms that the Civil Aviation Authority are a 'relevant authority' bound by this duty of regard.

The New Forest National Park was designated in 2005. Linked to the second statutory Park purposes, the Authority has worked with the public and others to identify the 'special qualities' of the National Park. These are summarised [here](#) and identify the New Forest as a haven of tranquillity in the midst of the busy, built-up south of England. The relative tranquillity of large parts of the National Park has consistently been cited as one of the New Forest's most valued special qualities. The National Park Authority therefore has undertaken tranquillity mapping highlighting the areas of tranquillity within the Park and this is attached for your information. This does provide some coverage of impacts from Bournemouth and Southampton Airport.

In conclusion, the legal framework for National Park requires a wide range of relevant authorities to have regard to the two Park purposes in making decisions that could affect them. The tranquillity of the New Forest National Park is one of its special qualities and the Authority would urge very careful consideration to be given to airspace change proposals that could further increase the overflying of the National Park at low levels.

I hope this response is helpful and I would be happy to discuss matters with you further if that would be helpful.

Regards

[REDACTED]

LASHAM GLIDING SOCIETY

From: [REDACTED]
Sent: 06 July 2019 18:14
To: #SOU Airspacechange <airspace.change@southamptonairport.com>
Cc: [REDACTED]
Subject: Lasham Gliding Society's Feedback on SOU ACP Design Principles

Dear [REDACTED]

Further to Neil Garwood's email below, please find attached the requested Feedback on Design Principles from Lasham Gliding Society (LGS).

At the meeting on 27 June the need for an 'overall' theme was identified, since a number of points apply to several of the specific themes. For example:

- The need to clarify the regulatory requirement for the ACP
- The principle that the design should be optimised from all perspectives including GA/gliding and that how this is done should be properly explained
- The principle that all analysis, such as that related to safety for all airspace users, must be evidence-based and the data, methodologies and results must be published.

On a separate point, During the first SOU ACP stakeholder mtg about Design Principles on 27 June 2019, it became apparent that a number of attendees were unaware that the CAA had published a Statement of Need and minutes of the CAA Assessment meeting for the SOU ACP on the CAA airspace change portal. A SOU representative stated these had been published, which mystified attendees who had viewed the website but not found the docs.

The reason was discovered by chance after the meeting: When viewing the SOU ACP on the CAA portal, it opens with the timeline starting at Stage 1b. Stage 1a is not visible despite there being ample room on the page. It is not stated, neither is it clear on the webpage, that to view Stage 1a it is necessary to left-click on the timeline and, while holding the left mouse button down, manually scroll the whole timeline from left to right. Only when the timeline 'bubble' for Stage 1a is visible and then clicked do the documents appear at the bottom of the screen.

This is far from intuitive and, at the very least, clear instructions on the need to scroll the timeline to select completed stages should be shown on each ACP webpage.

Secondly, the website feature whereby notification of updates are automatically sent to a registered email address does not seem to work.

Regards,

[REDACTED]
LGS

Feedback Entry from Lasham Gliding Society

Question

1.1. What do you consider to be particularly important when developing design principles that concentrate on safety?

- **No choke points (in Class G) to be created or exacerbated**
- **GA/gliding requirements and current operations to be explicitly taken into account and not restricted, with an explanation.**
- **Cost of safety to GA/gliding to be borne by SOU, e.g. transponders, electronic conspicuity**
- **Design must employ the minimum controlled airspace**
- **Risk profiles must be baselined for each class of traffic, including GA/gliding. If a safety impact is identified, must redesign.**
- **Design must be data-driven and data used must be published. Proper scientific methodologies must be used.**
- **Class G users are no less important than commercial users and must be treated equally.**
- **Visual references for CAS boundaries should be required.**

Question

1.2. Are there any other themes linked to safety that should be considered when developing design principles?

Included in 1.1

Question

2.1. What do you consider to be particularly important when developing design principles that concentrate on capacity?

- **Capacity requirements MUST be based on forecasts which are independently validated and have specific, plausible reasons for growth**
- **The need for more capacity must be properly demonstrated – since forecasts for airports' growth (ATM and PAX) have proved wildly optimistic**
- **SOU does not have a capacity problem; there has been a 20% drop in movements over the past 10 years**
- **ATC must have capacity to handle non-commercial traffic, i.e. GA/gliding.**

Question

2.2. Are there any other themes linked to capacity that should be considered when developing design principles?

Included in 2.1

Question

3.1. What do you consider to be particularly important when developing efficiency / environmental performance principles?

- **Design must meet efficiency criteria as currently defined in CAP1616 (total number of aircraft, including GA, in a given volume of airspace over a defined period of time)**
- **GA diversions, hence concomitant efficiency and noise issues must be analysed and included, especially where GA must divert low under new controlled airspace**
- **Continuous climb and descent profiles are preferable**
- **What capacity is the airspace being designed for and why? See 2.1 above**
- **PBN is not efficient in densely-populated areas with complex airspace and high traffic densities – e.g. London City (LCY) which has longer track miles, lower in altitude, hence more noise and pollution.**

Question

3.2. Are there any other themes linked to efficiency that should be considered when developing design principles?

Included in 3.1

Question

4.1. How should the minimising the total noise impact of overflights and the difference between multiple route options and avoiding areas that were previously unaffected be traded off against one another?

- **PBN concentrates noise. If respite routes are added to 'share' noise between communities on a time-based arrangement, it potentially requires multiples of the controlled airspace volumes required for one PBN route, which will create choke points for GA/gliding, constrain GA/gliding ops and force GA lower under the respite routes, causing more noise and safety issues.**
- **The noise and trade-offs analysis must include ALL traffic, including GA/gliding.**

Question

4.2. Are there any other themes linked to noise management and mitigation that should be considered when developing design principles?

Included in 4.1

Question

5.1. What do you consider to be particularly important when developing design principles that concentrate on new technology?

- **During the mtg on 27 June 2019 it was stated that EU IR 2018/1048 apparently requires ground-based NAVAIDS to be turned off in 2030, with all aircraft relying on GNSS/PBN. However, the regulation appears to allow the use of ground-based aids to continue where required for resilience. There are obvious resilience issues involved with depending solely on GNSS systems.**
- **PBN works in low population-density areas at moderate levels of traffic densities. It has already proved problematic in Southern England (e.g. LCY and the LHR PBN trial). 'Greater predictability' does not mean 'better noise management', it means concentrated noise for certain communities. Multiple respite routes potentially require multiples of the volume of controlled airspace and only a small number of PBN respite routes can be managed by ATC and airline pilots before it gets too complex.**
- **Electronic Conspicuity (EC) solutions proposed as part of the design MUST be based on real, certified solutions, not on unproven, uncommitted proposals.**

Question

5.2. Are there any other themes linked to technology that should be considered when developing design principles?

Included in 5.1

Question

6.1. What do you consider to be particularly important when developing design principles that concentrate on airspace integration?

- **The default airspace classification should be Class G, and the minimum specification of controlled airspace should be considered to meet specific needs, e.g. Class G TMZ, Class E TMZ, BEFORE Class D.**
- **It appears to be implied by SOU that PBN RNAV1 routes must be in Class D, though the Containment Policy permits such procedures in Class G under certain conditions. Known environments can be created within Class G (e.g. a Class G TMZ) and Class G should be the default.**
- **Although it is theoretically possible for a GA aircraft to be given a Class D transit without a transponder, the likelihood of this is low, especially when crossing public transport routes. Most GA transits are only granted for aircraft with transponders. Only fully-certified transponders meet this requirement. Transmissions from CAP1391, FLARM, PilotAware and other variants are not visible on ATC screens and in any case do not meet the standards required for commercial traffic separation in Class D, therefore cannot be used as alternatives to transponders for Class D transits. There are also fundamental problems with requiring use of fully certified transponders by all GA and gliding, e.g. spectrum congestion on 1090MHz.**
- **CAA Lower controlled airspace strategy is needed before airports launch into designs.**

Question

6.2. Are there any other themes linked to integration that should be considered when developing design principles?

Included in 6.1

Question

7.1. What do you consider to be particularly important when developing design principles that concentrate on resilience?

- **SOU appears to claim that EU IR 2018/1048 requires ground-based NAVAIDS to be turned off in 2030, with all aircraft relying on GNSS/PBN. However, the Regulation appears to allow the use of ground-based aids to continue where required for resilience. There are obvious resilience issues involved with depending solely on GNSS systems. See 'New Technology' above.**
- **What capacity will SOU ACP be designed for? Current airspace is not designed to include extra capacity for bad weather, neither should a new design. Don't incorporate extra routings for rare events, it will simply constrain other airspace users 24/7 and create problems and safety issues for their routine operations.**

Question

7.2. Are there any other themes linked to resilience that should be considered when developing design principles?

Included in 7.1

TWYFORD PARISH

-----Original Message-----

From: [REDACTED]
Sent: 08 July 2019 15:49
To: #SOU Airspacechange <airspace.change@southamptonairport.com>
Subject: Feedback meeting 1st July

I found this to be a thought provoking meeting dealing with a subject of which I have only a limited knowledge. Discussing how airspace might be increased was based entirely on the presumption of advancements in technology, the production of new aircraft and means of propulsion, all of which I, and most present, lack expertise to provide anything meaningful.

It would have been interesting and helpful to have first set the scene and to learn about the following; how the national airspace is used and the capacity of flight corridors, how Southampton airspace is used, why an increase is necessary, how it might be done and the capacity of the airport, current and potential after alterations.

With that information as a background, I may have found it easier to offer something more worthwhile about what might need to be considered in respect to safety, noise, flight paths, type of aircraft, impact on the environment etc.

Notwithstanding the above, I look forward to the follow up on 19th July.

[REDACTED]

Feedback Form

Creating airspace design principles that will guide the development of Southampton Airport's airspace change proposal. (Stage 1B)

Feedback Entry

Question

1.1. What do you consider to be particularly important when developing design principles that concentrate on safety?

Not forgetting environmental issues.

Question

1.2. Are there any other themes linked to safety that should be considered when developing design principles?

Question

2.1. What do you consider to be particularly important when developing design principles that concentrate on capacity?

Not sacrificing environmental amenity just for bigger "payloads".

Question

2.2. Are there any other themes linked to capacity that should be considered when developing design principles?

All other forms of travel, as possible alternatives.

The need for fewer aircraft per 1,000 travellers.

The need to reduce pollution, especially air pollution and noise pollution.

Question

3.1. What do you consider to be particularly important when developing efficiency / environmental performance principles?

Fuel efficiency. Cost to travellers. Air pollution and noise pollution.

Question

3.2. Are there any other themes linked to efficiency that should be considered when developing design principles?

Use of renewable energy as opposed to fossil energy.

Question

4.1. How should the minimising the total noise impact of overflights and the difference between multiple route options and avoiding areas that were previously unaffected be traded off against one another?

Bringing new routes not previously flown should be done only very reluctantly because polluting new areas is to be highly regretted.

Question

4.2. Are there any other themes linked to noise management and mitigation that should be considered when developing design principles?

The noise levels should all be published.

Question

5.1. What do you consider to be particularly important when developing design principles that concentrate on new technology?

Technology should always be subject to ultimate human control.

Question

5.2. Are there any other themes linked to technology that should be considered when developing design principles?

No

Question

6.1. What do you consider to be particularly important when developing design principles that concentrate on airspace integration?

Priority for the national interest. Priority for the business community.

Question

6.2. Are there any other themes linked to integration that should be considered when developing design principles?

No

Question

7.1. What do you consider to be particularly important when developing design principles that concentrate on resilience?

Resilience is or should be inherent in sensible technology.

Question

7.2. Are there any other themes linked to resilience that should be considered when developing design principles?

Design for aircraft should not be solely concerned with aircraft.

NATURAL ENGLAND

From: [REDACTED]
Sent: 10 July 2019 13:59
To: #SOU Airspacechange <airspace.change@southamptonairport.com>
Cc: [REDACTED]
Subject: RE: Invitation to participate in the development of design principles for Southampton Airport's airspace change proposal

Dear [REDACTED]

Thank you for your voicemail left for my colleague [REDACTED] who recently attended the stakeholder workshop regarding the airspace change proposal. I understand that there is a further workshop plan for later this month (Fri 19th July or Tues 23rd July). Unfortunately Natural England cannot attend, but as requested at the workshop we would like to provide you with some further comments before the 17th July deadline.

Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.

We provide advice on protected nature conservation sites, species and landscapes, included national and internationally protected sites (Sites of Special Scientific Interest (SSSI), Special Area of Conservation (SAC), Special Protection Areas (SPA), Ramsar sites and Marine Conservation Zones (MCZs). We advise that there are a number of environmental issues which should be considered within the scope and design principles for Southampton Airport's airspace change proposal which will also need to be considered in any assessment undertaken by including:

Potential impacts to statutory protected nature conservation sites (SPA, SAC, Ramsar, SSSI and MCZs) and protected species and possible mitigation requirements under the relevant legislation including The Conservation of Habitats and Species Regulations 2017, The Wildlife and Countryside Act 1981(as amended) and Marine and Coastal Access Act 2009. The following potential impacts should be included in any consideration and assessment:

- Air and water quality impacts to protected sites and the wider environment, including nitrogen deposition.
- Consideration and assessment of disturbance and noise impacts on SPA/SSSI birds (e.g. will proposed changes and new routes affect roost sites, bird flight-lines or result increase bird strike risk. Is any mitigation/compensation required for impacts to protected site bird interests). You may wish to access the [Solent Wader & Brent Goose network](#) mapping to inform the design of new flight routes.
- Wider Environmental Sustainability, including how this proposal fits with government policy for climate change and carbon emissions. Consideration of offsetting measures for increases in greenhouse gas emissions.

For more detail on protected sites that may be impacted by the airspace change proposal, please access the Defra [MAGIC](#) website that provides authoritative geographic information about the natural environment.

I hope you find these comments useful and are taken into consideration in the development of the proposal.

Kind regards

[REDACTED]

[REDACTED]

Dorset, Hampshire and Isle of Wight Team

Natural England
4th Floor, Eastleigh House
Upper Market Street
Eastleigh
SO50 9YN

Feedback Form

Creating airspace design principles that will guide the development of Southampton Airport's airspace change proposal. (Stage 1B)

Feedback Entry

Question

1.1. What do you consider to be particularly important when developing design principles that concentrate on safety?

Safety should mean the safety of all existing and planned airspace users, not just that of the proposer's business interests. Southampton Airport's plans should not increase the safety risk of GA and other airspace users by creating hot spots, funnelling, or no go areas.

Question

1.2. Are there any other themes linked to safety that should be considered when developing design principles?

Question

2.1. What do you consider to be particularly important when developing design principles that concentrate on capacity?

ACP proposers should be honest about the number of planned movements and not try to enhance their cases by using passenger numbers as a justification when these are carried in larger aircraft than previously, possibly in fewer aircraft movements than previously.

Capacity should be designed only for the minimum amount of controlled airspace required for normal operations, and not for the rare occasions when overloads might happen.

Question

2.2. Are there any other themes linked to capacity that should be considered when developing design principles?

Question

3.1. What do you consider to be particularly important when developing efficiency / environmental performance principles?

Question

3.2. Are there any other themes linked to efficiency that should be considered when developing design principles?

Question

4.1. How should the minimising the total noise impact of overflights and the difference between multiple route options and avoiding areas that were previously unaffected be traded off against one another?

Should it be deemed desirable to allow for multiple routings in and out of an airport, there is no excuse for permanently sterilising large volumes of airspace to enable this to happen. Flexible use of airspace should be built in to any new design should that be a requirement. Flight profiles should all be designed to be as high as possible to reduce noise levels on the ground at a distance.

There must be no squeezing of GA aircraft lower to the ground or into corridors as a consequence of any new airspace design, placing the noise reduction burden on GA to the benefit of commercial operators.

Question

4.2. Are there any other themes linked to noise management and mitigation that should be considered when developing design principles?

Question

5.1. What do you consider to be particularly important when developing design principles that concentrate on new technology?

New technology may be helpful to the airport operator but it should be fully recognised that the cost, complexity and regulatory burden of applying new technology for electronic conspicuity might prove inordinately disadvantageous to some classes of GA aircraft. It is vital that their interests are taken fully into account when making such proposals and that agreement on the terms for such additions is reached before any ACP goes to the CAA.

Question

5.2. Are there any other themes linked to technology that should be considered when developing design principles?

Question

6.1. What do you consider to be particularly important when developing design principles that concentrate on airspace integration?

It must not be assumed that all aviation users are keen to have access to radio/ATC services when flying in Class G airspace. Most GA users do not, and prefer to rely on see and avoid. It is all too easy for a commercial organisation based on the use of controlled airspace to assume that everybody want to fly as they do.

Question

6.2. Are there any other themes linked to integration that should be considered when developing design principles?

Question

7.1. What do you consider to be particularly important when developing design principles that concentrate on resilience?

Resilience planning should be based on the median case and not on building in resilience for every contingency every day. A proportionate approach is necessary, recognising that airspace is a public asset not a prospective monopoly to appropriated by those with commercial interests.

Question

7.2. Are there any other themes linked to resilience that should be considered when developing design principles?

Southampton Airport



1. The aviation and airport industry is hoping and expecting to expand. There is increased demand from all types of aircraft user. The industry provides much support for industry and business. The expanding industry provides expanding business and employment opportunities.
2. The industry is looking to design improved capacity from the available airspace, taking advantage of improving technology, to accommodate more and bigger and quieter and “cleaner” aircraft.
3. Southampton will continue to be constrained by the limits on the length of the runway, and there are no proposals for lengthening. The aircraft taxiing and apron parking will be improved.
4. The flight paths will be “opened out”, or “spread out”, giving respite to some local residents but drawing in some local residents not previously bothered by noise. See the Southampton Airport masterplan, which is proposing lengthening the flight paths.
5. Air pollution continues to be a real problem. The industry expects to have less polluting aircraft. But there are no proposals for any sort of prohibition or taxing of old toxic aircraft, by comparison with the current campaign against

old road vehicles. NOx particulates are “distributed” or dispersed over a wide area! But “they do not ultimately go away”.

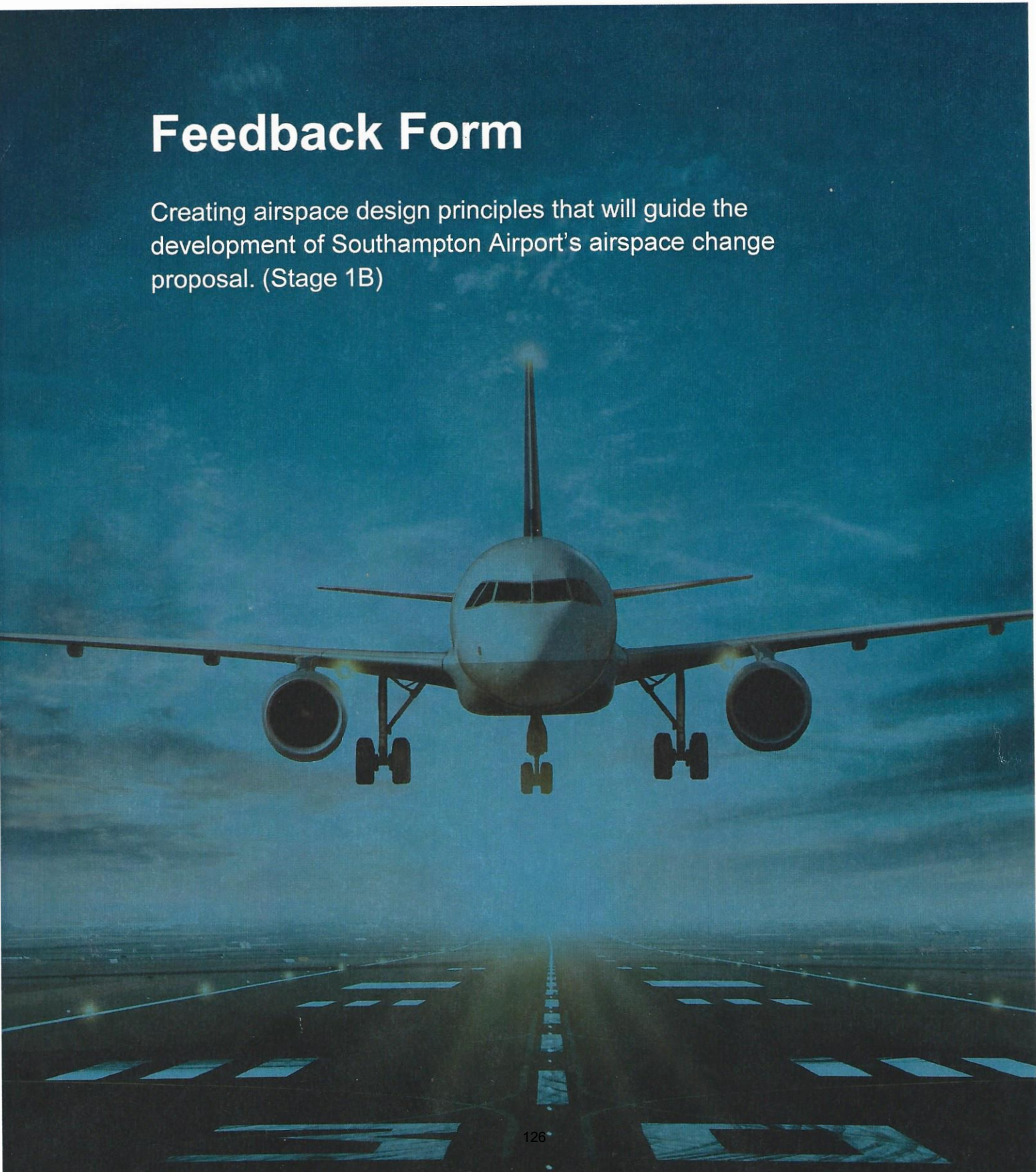
6. Noise will be reduced in modern aircraft. But there will be more aircraft. A modern big aircraft with a big “payload” can make a steep climb away, but can make more noise and use much fuel.
7. Aircraft noise can seriously interfere with tranquillity, e.g. urban gardens, public parks, open spaces, national parks, New Forest, areas of special protection. CPRE Hampshire is promoting new green belt in south Hampshire. 70 DBA or more upsets wildlife.
8. There are no proposals to interfere with the existing 11pm-6.30am night flight ban.
9. An environmental impact assessment EIA will be required.
10. Continuing concerns
 - (a) The airport industry seems to be largely unregulated.
 - (b) How do Bournemouth, and Farnborough and the other airports in Hampshire fit into the overall picture?
 - (c) The threats from the Airport to the quality of life in Hampshire remain significant, especially air pollution and noise, and impact upon traffic and travel in the area.

- (d) The airport industry appears not to think in terms of better integration with transport, particularly the docks, the railways, and the motorway and road network.

Report by [REDACTED] representing CPRE Hampshire at Holiday Inn Eastleigh
Monday 1 July at a meeting held by Built Environment Communication Group
BECG acting on behalf of the industry and Southampton Airport.

Feedback Form

Creating airspace design principles that will guide the development of Southampton Airport's airspace change proposal. (Stage 1B)



Feedback Entry

Question

1.1. What do you consider to be particularly important when developing design principles that concentrate on safety?

The following is to clarify issues raised at the initial workshop held on 27 June 2019 by Western Air (Thrupton) Ltd, in the capacity of Aerodrome Licence Holder, Thrupton Aerodrome.

1. The current Southampton CTR is not fit for purpose as it does not comply with ICAO Annex 11 Standard 2.11.5, which the UK does not notify a Difference from. In this respect aircraft flying a procedural Instrument Approach Procedure (IAP) using the VOR or NDB as an Initial Approach Fix (IAF) are likely to leave controlled airspace while executing a base turn to intercept the final approach track. This contravenes the subject Standard.

To achieve current compliance with the Standard the CTR would need to be extended. However, with the intent to remove most ground based nav aids by 2030 it is considered that flying an IAP using an IAF overhead the Airport, ie currently the VOR or NDB, which at Southampton is already an exceptional event, will no longer be applicable.

Consequently any extension of the current CTR cannot be considered justifiable.

2. When comparing aircraft performance from when the current CAS was introduced and the current date, and considering the probability that some level of continuous descents for arriving traffic could be implemented, it is considered feasible that part of the current CTA lower limits to the southwest and east of Southampton can be raised, thereby providing an increased level of flexibility for aircraft to operate in contiguous Class G airspace.

Question

1.2. Are there any other themes linked to safety that should be considered when developing design principles?

Question

2.1. What do you consider to be particularly important when developing design principles that concentrate on capacity?

1. The ACP should illustrate how the managing ANSP will ensure adequate human resources are provided to facilitate optimum capacity, providing CAS access not only IFR traffic, but also VFR traffic that wishes to transit through it. In this respect access to CAS should not be unreasonably refused due to reduced staffing levels, as is currently evident at certain times of the day/night.
2. Consideration is being given to a GNSS based IAP at Thruxton. Concern would be expressed if any expansion of the Solent CTA impacted on this. While extension of the Solent CTA to the north-east is likely to have a positive impact on capacity, a lower limit of such an extension below 3500 FT ALT is not considered to be justifiable.

Question

2.2. Are there any other themes linked to capacity that should be considered when developing design principles?

Question

3.1. What do you consider to be particularly important when developing efficiency / environmental performance principles?

1. In addition to the potential to increase CAS capacity (mentioned at 2.1), provision of expeditious arrival and departure routings realised by a CTA extension to the north-east will minimise fuel burn and thereby its current negative environmental impact. In this respect removal of the current "Winchester orbit" technique, provided by ATC in order to achieve an acceptable descent gradient for IFR arrivals from the north & north-east, will have a significant positive impact.

Question

3.2. Are there any other themes linked to efficiency that should be considered when developing design principles?

Question

4.1. How should the minimising the total noise impact of overflights and the difference between multiple route options and avoiding areas that were previously unaffected be traded off against one another?

1. It is considered doubtful that any significant respite routes would be practicable due to the CAS environment to the north-east and east of Southampton. This will need to be traded off by the ability to provide continuous climbs and descents.

Question

4.2. Are there any other themes linked to noise management and mitigation that should be considered when developing design principles?

Question

5.1. What do you consider to be particularly important when developing design principles that concentrate on new technology?

1. Technology should be exploited to support SIDs and STARRs with the potential for continuous climbs and descents. This is considered to have a positive impact on limiting CTA lower limits, enabling raising of some that are currently in place.

Question

5.2. Are there any other themes linked to technology that should be considered when developing design principles?

Question

6.1. What do you consider to be particularly important when developing design principles that concentrate on airspace integration?

1. Regrettably it is understood that the Bournemouth ACP is not progressing concurrent to Southampton's. It is considered possible that Bournemouth may determine that changes are necessary to CAS. In this respect can Southampton seek early clarification from Bournemouth what changes are sought to CAS east of Bournemouth that could impact on the Southampton ACP?
2. As NATS En-Route are only responsible for airspace change proposals from 7000 FT and above, it is assumed that the ACP will provide for raising of the Solent CTA upper limit where appropriate to remain contiguous with Class A airspace, rather than lowering of Class A airspace lower limits.

Question

6.2. Are there any other themes linked to integration that should be considered when developing design principles?

Question

7.1. What do you consider to be particularly important when developing design principles that concentrate on resilience?

1. Following withdrawal of ground based radio navigation aids, the ACP should illustrate how the impact of a satellite based navigation system failure will be mitigated.

Question

7.2. Are there any other themes linked to resilience that should be considered when developing design principles?

WESTERN AIR THRUXTON

From: [REDACTED]
Sent: 16 July 2019 15:57
To: [REDACTED]
Cc: [REDACTED]
Subject: Re: Invitation to attend 'follow-up' workshop on the development of design principles for Southampton Airport's airspace change proposal

Dear [REDACTED]

Attached is a summary of feedback following the initial ACP Design Principles Workshop held on the 27th June and the Aviation Stakeholder Report circulated after it.

The attachment represents feedback from the Thruxton Approved (Flight) Training Organisation. I have grouped our feedback under the seven subject headings that were used at the initial workshop.

I understand that you have already received the feedback from my colleague, [REDACTED], representing the Thruxton Aerodrome Licence Holder.

I confirm as per our brief telecon last week, that both myself and [REDACTED], shall be attending the follow-up Workshop this coming Friday, 19th July.

Best regards
[REDACTED]

WESTERN AIR THRUXTON

Thruxton Approved (Flight) Training Organisation Feedback to Workshop 1 – Aviation Stakeholders

Safety

Start with a clean design sheet, but frequently compare it to existing CAS to ensure it is less intrusive on GA than the existing arrangement of CTR and CTA.

Create a simplified layout of CTR and raise the underside of CTA to simplify the vertical layout.

Keep lateral limits of the CTR and the underside of any CTA well clear of visual reference points and line features that provide clear, unique visual navigation features for GA traffic routing around CAS.

Do not create new choke points for GA, nor exacerbate existing choke points either laterally or vertically. As a guide, the Southampton/Bournemouth Corridor, Manchester Corridor and Heathrow/Gatwick Corridor are all hopelessly inadequate.

Provide an adequate number of Air Traffic Controllers, to manage GA traffic in the vicinity of any CTR/CTA. Such Controllers need to be sympathetic to the needs and abilities of recreational pilots. Note, GA doesn't usually file a flight plan in advance so on first contact it needs the Controller to listen sympathetically to the Pilot's request.

Airspace Capacity

Take into account :-

- ALL the recommendations of The Lord Kirkhope Inquiry into UK Lower Airspace and
- the Government's policy statement "...to ensure that the UK has the minimum volume of controlled airspace consistent with safe and efficient air traffic operations" AND
- to "make the UK the best country in the world for General Aviation"

Provide adequate airspace north of Southampton up to Alt 7,000ft for Stall/Spin awareness training; Undesired Situation awareness training; Aerobatics.

Default airspace classification should be Class G. Class E should be considered for CAS. Class D should not be the automatic default. RMZ and TMZ will need adequate provision of ATCOs

Flight Efficiency & Environmental Performance

Ensure that the steeper and continuous climbs and descents of modern aircraft result in smaller lateral extent and higher base level of CAS.

Make adequate for GA Transits through any CTR/CTA at approx 2,500 ft with sufficient and suitable Controllers to provide good usage. Do not confine GA to narrow or low level corridors.

Adoption by the UK of SERA in Class D airspace could limit the vertical extent of VMC availability. Make provision for the sensible use of Zone Transits.

Noise management and Mitigation

Provision of Respite Routes for commercial traffic should not result in loss of Class G airspace for GA traffic.

New Technology

Provide contingency, ground-based navigation equipment against failure/spoofing of GNSS (as is currently being experienced in Israel).

Provide “Fail-safe” arrangements for the use of transponders and “listening squawks” or similar systems. The current arrangements are not “fail-safe” eg if the transponder is unknown to be defective. This might require additional Controllers.

Airspace Integration

Remember your stated aim is to REDUCE the extent of CAS and its effect on GA.

Design to be co-ordinated with surrounding Airports and the MOD/Military airfields and Danger Areas including Porton Down. Is Porton Down Danger Area really necessary ?

Take into account any frequent Temporary CAS eg that Notamed by Farnborough to/from CPT and to/from Goodwood.

Take into account Thrupton’s aspiration for a GNSS approach with FAF 248deg/5nm to Thrupton; IF 248deg/5nm to FAF and 2xIAF 150/338deg5nm to the IF ie with one of the IAFs near to Bullington Cross. MSAs 2,400ft (Hannington Mast)

Resilience

Provide ground-based navigation and approach equipment including ILS/DME; Primary and Secondary Radar. Airlines might have IRS but GA doesn’t.

Feedback Entry

Question

1.1. What do you consider to be particularly important when developing design principles that concentrate on safety?

Safety should always have primacy, but not exclusivity. Efforts to create an improved safety management system, beyond regulatory requirements and good practice, should be balanced against the range of other potential benefits which an opportunity presents.

Question

1.2. Are there any other themes linked to safety that should be considered when developing design principles?

There will be other ways to improve safety besides airspace design; it is important to understand how these interact with, and can be supportive of, airspace design.

Question

2.1. What do you consider to be particularly important when developing design principles that concentrate on capacity?

Greater airspace capacity is created thorough a combination of a range of factors including system design, design standards, operating procedures, regulatory constraints and the extent to which other airspace users may need access to the same airspace.

Question

2.2. Are there any other themes linked to capacity that should be considered when developing design principles?

It is important to decouple airspace design and system capacity from airport capacity. This is an ambition of airspace modernisation, however, airports should not design in constraints that impose limits on the use of the terminal airspace.

Question

3.1. What do you consider to be particularly important when developing efficiency / environmental performance principles?

Identify when they are mutually beneficial and exploit these areas as much as practical. When they diverge consider the right emphasis on a case by case basis. The overall system and airport requirements should also be factored into the considerations.

Question

3.2. Are there any other themes linked to efficiency that should be considered when developing design principles?

Levels of efficiency are also affected by now operating resilience is baked into a design and the extent to which design/procedure complexity and safety have been an influence on the overall design.

Question

4.1. How should the minimising the total noise impact of overflights and the difference between multiple route options and avoiding areas that were previously unaffected be traded off against one another?

Assuming that, the airport wishes to utilise its spare runway capacity to offer increased choice to passengers, it is important to take a long-term view and use airspace modernisation to offer a range of benefits to a multitude of stakeholder groups.

Question

4.2. Are there any other themes linked to noise management and mitigation that should be considered when developing design principles?

Question

5.1. What do you consider to be particularly important when developing design principles that concentrate on new technology?

Effective systems integration is key to success. Introduction of new technology should be carefully controlled. The application of existing technology in new ways should be embraced and the lessons learnt from other's experiences.

Question

5.2. Are there any other themes linked to technology that should be considered when developing design principles?

Question

6.1. What do you consider to be particularly important when developing design principles that concentrate on airspace integration?

Airspace boundaries should evaluate traffic interactions in the vertical and horizontal planes and consider the in-cockpit capabilities that are available. Single source safety solutions should be avoided wherever possible.

Question

6.2. Are there any other themes linked to integration that should be considered when developing design principles?

Question

7.1. What do you consider to be particularly important when developing design principles that concentrate on resilience?

There are a wide range of external factors that interact dynamically with the airspace surrounding an airport.

The ideal solution is to create a design that allows the competing aspects of efficiency, resilience and complexity to be prioritised in a similarly reactive way so that adverse impacts (on all stakeholders) are minimised.

Question

7.2. Are there any other themes linked to resilience that should be considered when developing design principles?

Feedback Form

Creating airspace design principles that will guide the development of Southampton Airport's airspace change proposal. (Stage 1B)

Feedback Entry

Question

1.1. What do you consider to be particularly important when developing design principles that concentrate on safety?

Question

1.2. Are there any other themes linked to safety that should be considered when developing design principles?

Question

2.1. What do you consider to be particularly important when developing design principles that concentrate on capacity?

Question

2.2. Are there any other themes linked to capacity that should be considered when developing design principles?

Question

3.1. What do you consider to be particularly important when developing efficiency / environmental performance principles?

Question

3.2. Are there any other themes linked to efficiency that should be considered when developing design principles?

Question

4.1. How should the minimising the total noise impact of overflights and the difference between multiple route options and avoiding areas that were previously unaffected be traded off against one another?

Ideally the load should be spread. This would be fairer and democratic. Current sufferers should not be further impinged on simply because they “have got used to it”, they probably haven’t.

If this isn’t feasible, compensation should be considered and be part of the economic cost of the plan.

Question

4.2. Are there any other themes linked to noise management and mitigation that should be considered when developing design principles?

Wider consultation should be encouraged such that vested interest groups do not have too much influence on the outcome (eg National Parks and benefiting business).

Question

5.1. What do you consider to be particularly important when developing design principles that concentrate on new technology?

Question

5.2. Are there any other themes linked to technology that should be considered when developing design principles?

Question

6.1. What do you consider to be particularly important when developing design principles that concentrate on airspace integration?

Question

6.2. Are there any other themes linked to integration that should be considered when developing design principles?

Question

7.1. What do you consider to be particularly important when developing design principles that concentrate on resilience?

Question

7.2. Are there any other themes linked to resilience that should be considered when developing design principles?

Feedback Form

Creating airspace design principles that will guide the development of Southampton Airport's airspace change proposal. (Stage 1B)

Feedback Entry

Question

1.1. What do you consider to be particularly important when developing design principles that concentrate on safety?

Safety should be an underpinning design principle and sit above all others. Any design should at least maintain current safety standards. Regulatory requirements should be met.

Question

1.2. Are there any other themes linked to safety that should be considered when developing design principles?

Safety considerations should encompass the implications of impact to all airspace users as a result of any airspace change. i.e. whilst creating a portion of controlled airspace may meet safety criteria for those flying within CAS, this may have a negative effect on those airspace users flying out with CAS affected by new portions of CAS (e.g. traffic funnelling).

Question

2.1. What do you consider to be particularly important when developing design principles that concentrate on capacity?

MOD has no specific comment in terms of any requirements to increase capacity. The MOD would wish to ensure however that consideration is made to the impact that any increase in capacity may have on other airspace users. Maintaining a provision and ability to facilitate access to other airspace users should be considered when looking at capacity.

Question

2.2. Are there any other themes linked to capacity that should be considered when developing design principles?

Nil.

Question

3.1. What do you consider to be particularly important when developing efficiency / environmental performance principles?

MOD has no comment.

Question

3.2. Are there any other themes linked to efficiency that should be considered when developing design principles?

MOD has no comment.

Question

4.1. How should the minimising the total noise impact of overflights and the difference between multiple route options and avoiding areas that were previously unaffected be traded off against one another?

MOD has no comment.

Question

4.2. Are there any other themes linked to noise management and mitigation that should be considered when developing design principles?

MOD has no comment.

Question

5.1. What do you consider to be particularly important when developing design principles that concentrate on new technology?

Interoperability

The MOD is favour of embracing new technologies and recognises the importance of this with respect to modernisation of airspace.

Question

5.2. Are there any other themes linked to technology that should be considered when developing design principles?

Nil.

Question

6.1. What do you consider to be particularly important when developing design principles that concentrate on airspace integration?

The MOD would wish to ensure that any controlled airspace implemented should be minimised and there should be provision for other airspace users to transit portions of controlled airspace. It should also consider the impact on any adjacent uncontrolled airspace e.g. traffic funnelling, as a result of any change. It is important that provision is made to allow all airspace users access to any portions of controlled airspace when required.

The MOD recognises the importance of Airspace Modernisation and remains committed to ensuring airspace is used safely, efficiently and flexibly. Airspace modernisation and future airspace design must consider and allow for MOD access to airspace in order to meet future defence requirements.

Question

6.2. Are there any other themes linked to integration that should be considered when developing design principles?

Nil.

Question

7.1. What do you consider to be particularly important when developing design principles that concentrate on resilience?

MOD has no comment.

Question

7.2. Are there any other themes linked to resilience that should be considered when developing design principles?

MOD has no comment.

NEW FOREST DISTRICT COUNCIL

From: [REDACTED]
Sent: 17 July 2019 18:51
To: #SOU Airspacechange <airspace.change@southamptonairport.com>
Subject: reponse from New Forest District Council

In response to the workshop:

In terms of additional feedback, one of the particular features of Southampton Airport and its surrounding environs and its close proximity to the two National Parks - the South Downs and the New Forest and the Southampton Water shoreline which has protected habitat. I am aware that the National Park Authority has commented that 'the two statutory purposes of National Parks were originally established in the *National Parks & Access to the Countryside Act 1949* as:

- to conserve and enhance the natural beauty, wildlife and cultural heritage of the National Park; and
- promote opportunities for the understanding and enjoyment of the special qualities of the National Park by the public.'

It should be noted that these statutory National Park purposes are relevant for a wide range of relevant authorities, and not just the respective National Park Authorities. The Government has produced further guidance on this 'duty of regard'. This duty of regard, "...recognises that a wide range of bodies have a direct influence over the future of these protected landscapes...It also acknowledges that the fulfilment of protected area purposes rests not only with those bodies directly responsible for their management but also relies on effective collaborative working."

The tranquil nature and the special habitat status of the New Forest District Council and adjoining National Park make the area sensitive to activities that increase noise and potentially impact on air and water quality. Very careful consideration needs to be given to these important environmental matters as the airport forms its thinking around changes that may take place.

I hope this response is helpful and I would be happy to discuss matters with you further if that would be helpful.

[REDACTED]

[REDACTED]

New Forest District Council

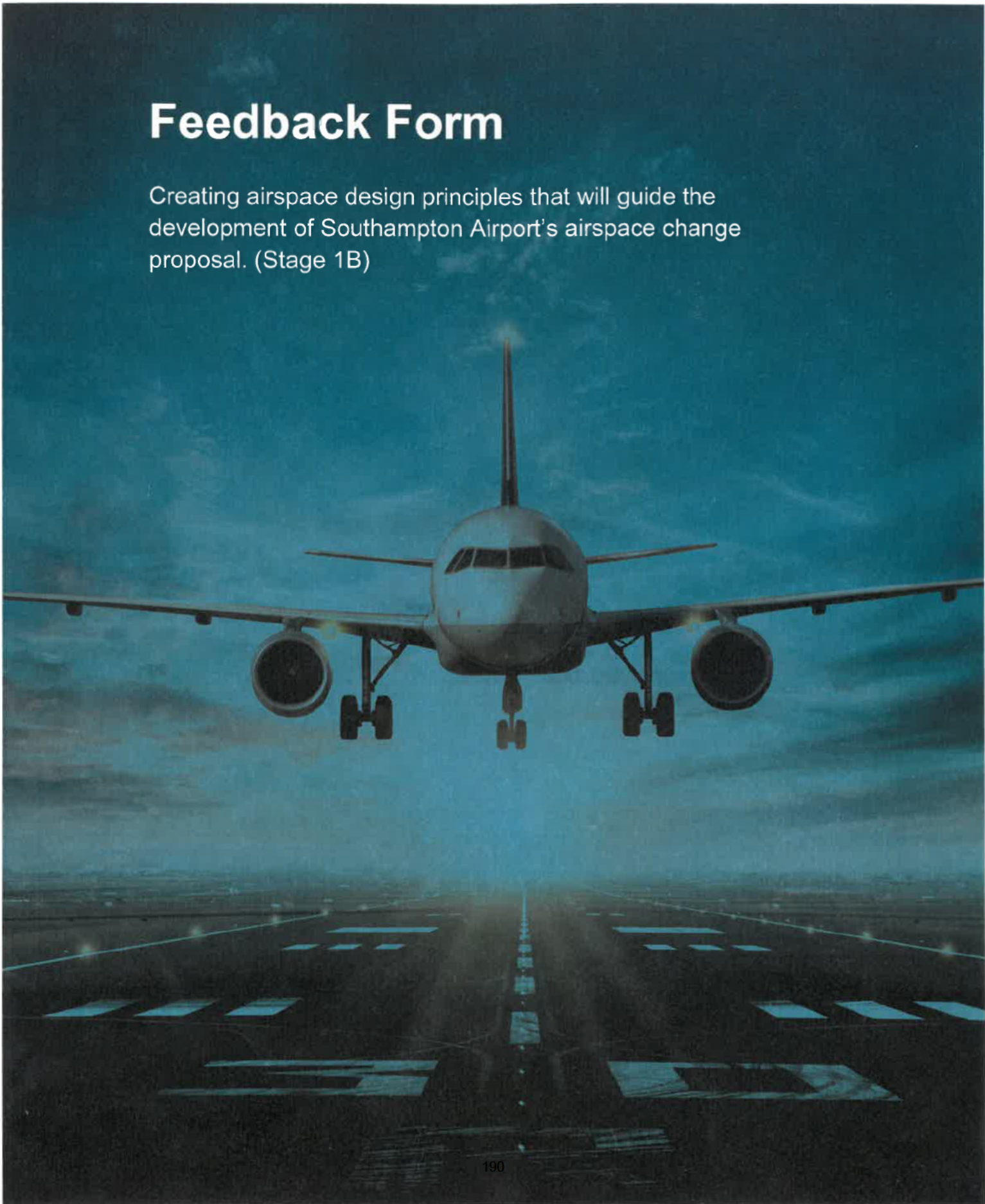
Tel: [REDACTED]

newforest.gov.uk



Feedback Form

Creating airspace design principles that will guide the development of Southampton Airport's airspace change proposal. (Stage 1B)



Feedback Entry

Question

1.1. What do you consider to be particularly important when developing design principles that concentrate on safety?

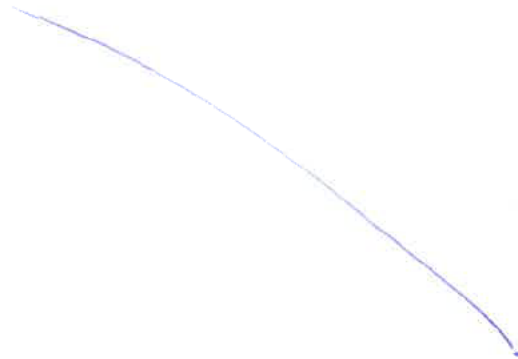
*Within this questionnaire I have chosen to highlight only those issues relevant to the South Downs National Park.
I feel they were all already picked up at the workshop,
so this is only intended to be a back-up.*



South Downs National Park Authority

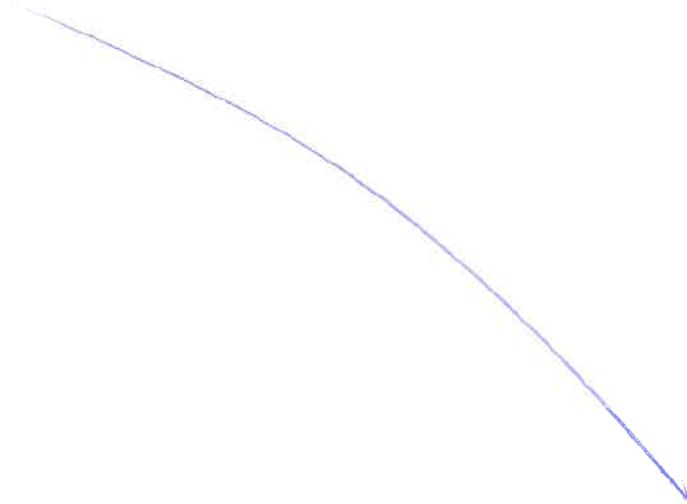
Question

1.2. Are there any other themes linked to safety that should be considered when developing design principles?



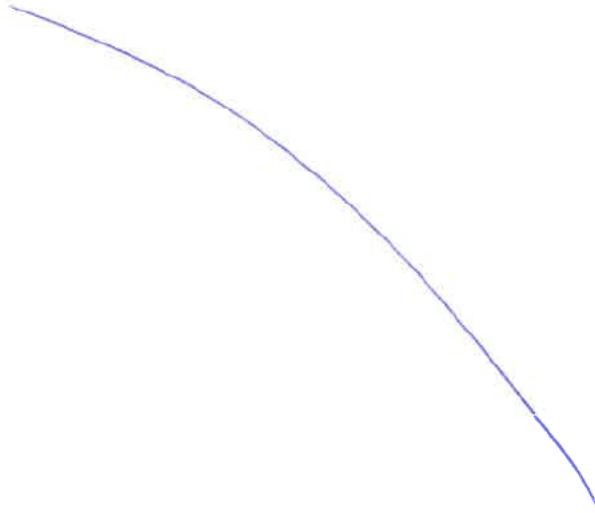
Question

2.1. What do you consider to be particularly important when developing design principles that concentrate on capacity?



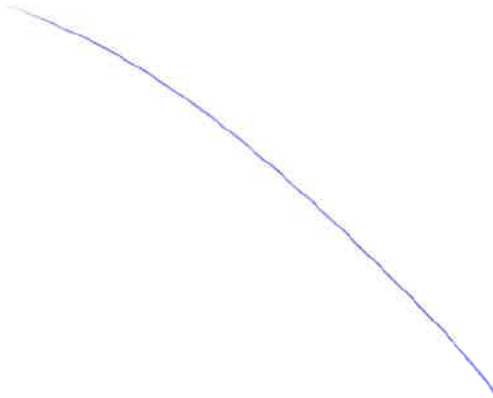
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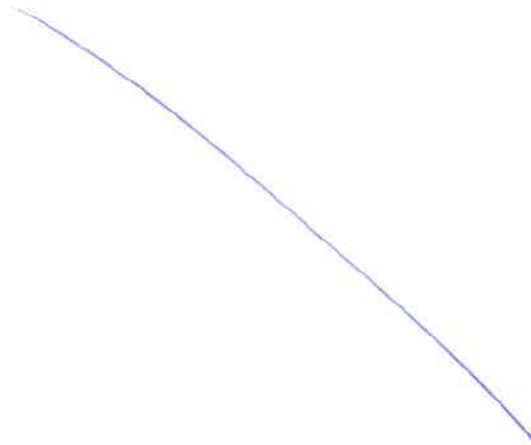
Question

3.1. What do you consider to be particularly important when developing efficiency / environmental performance principles?



Question

3.2. Are there any other themes linked to efficiency that should be considered when developing design principles?



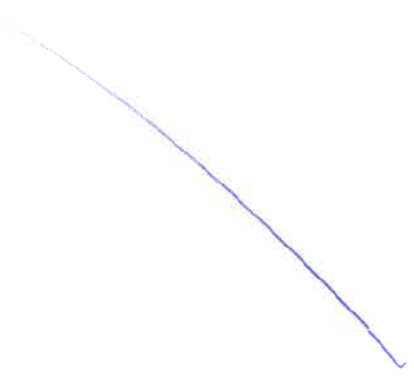
Question

4.1. How should the minimising the total noise impact of overflights and the difference between multiple route options and avoiding areas that were previously unaffected be traded off against one another?

- We would be concerned about introducing noise to a currently tranquil area
- We would be interested in the impacts of multiple routes within areas already impacted by noise.
- The South Downs & New Forest are to be treated equally. We would not want noise issues affecting the SDNP to be transferred to the New Forest and vice versa.

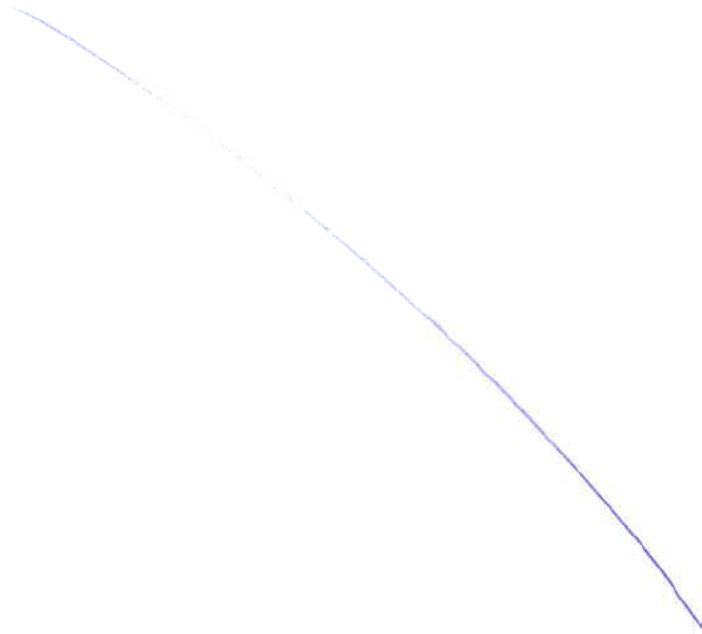
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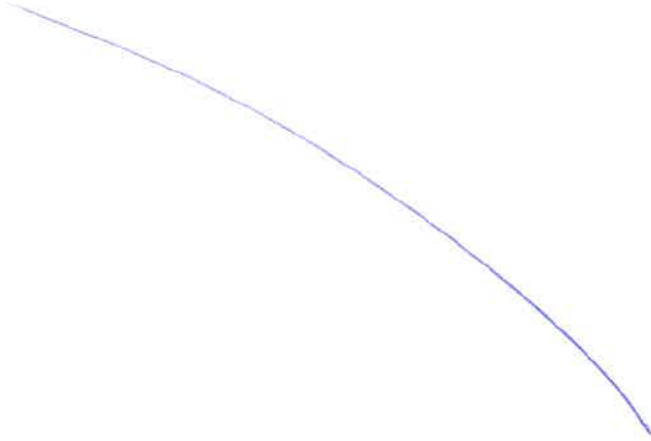
Question

5.1. What do you consider to be particularly important when developing design principles that concentrate on new technology?



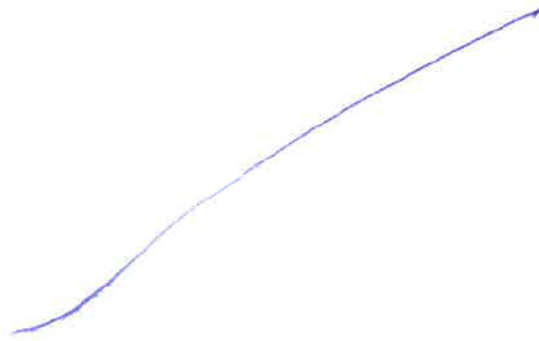
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5.2. Are there any other themes linked to technology that should be considered when developing design principles?



Question

6.1. What do you consider to be particularly important when developing design principles that concentrate on airspace integration?



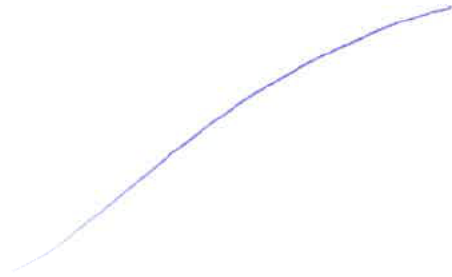
Question

6.2. Are there any other themes linked to integration that should be considered when developing design principles?



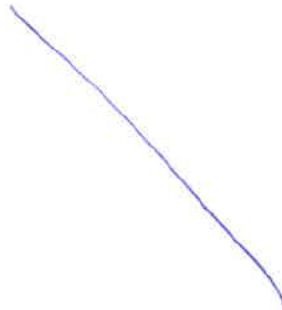
Question

7.1. What do you consider to be particularly important when developing design principles that concentrate on resilience?



Question

7.2. Are there any other themes linked to resilience that should be considered when developing design principles?



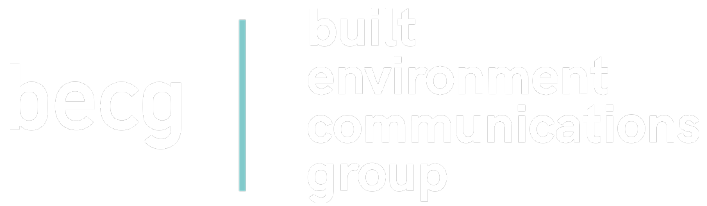
APPENDIX C - Stakeholder Feedback Received

Stakeholder Engagement Phase 2

Workshop Notes

- **Follow-up Workshop 1 - pages 206-228**
- **Follow-up Workshop 2 - pages 229-256**

- **Updated Workshop 2 Notes - pages 300-345**



Development of design principles for
Southampton Airport's airspace change
proposal

Follow-Up Workshop 1

Location: Holiday Inn Eastleigh, Leigh
Rd, Eastleigh, Hampshire, SO50 9PG

Friday 19th July 2019

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Document Overview

This document is an overview of a Follow-up Workshop held with a mix of Aviation, Local Government and Business, and Community and Interest stakeholders on Friday 19th July regarding the development of design principles for a change in Southampton Airport's airspace.

Please note that all conversation was summarised in the interests of transparency, although not everything stated by attendees was always applicable to Southampton Airport, the ACP or the Design Principles.

Workshop objectives

The objectives of the workshops were to:

- Increase awareness and understanding among participants about the need for airspace change and of the process for bringing it about.
- Offer clarification on points raised in feedback at the previous three design principles workshops on 27th June and 1st July.
- Provide a summary of the feedback received during the first three design principles workshops, from the feedback received in writing in response to these, and from the Focus Groups held.
- Explain the initial design principles statements that we have developed based on the feedback received so far.
- Gather feedback from stakeholders in response to these draft statements, with the aim of refining the design principles for submission to the CAA.

Attendees representing Southampton Airport

SOU attendees

- [REDACTED]: provided a brief overview of the Southampton Airport Master Plan at the beginning of the presentation, to address a request for clarification made by stakeholders at the initial workshops. He latterly provided additional information to stakeholders' questions where necessary, both in response to the presentation and when matters arose that required SOU input during the design theme discussions.
- [REDACTED]: observed the session and provided additional information in response to stakeholders' questions, where necessary.
- [REDACTED]x: observed the session and provided additional information in response to stakeholders' questions, where necessary.

Trax attendees

- [REDACTED]: led the presentation throughout the workshop; walking stakeholders through the points of clarification which emerged from initial workshop feedback; summarising the feedback received in response to the first airspace design principles workshops; presenting the feedback from the focus groups, held in addition; providing a recap of the need for Airspace Modernisation; outlining the proposed design principles which had been formulated in response to all feedback received; and seeking feedback from stakeholders in response to these draft principles.
- [REDACTED]: observed the workshop and provided additional information to stakeholders' questions, where necessary.

BECG attendees

- [REDACTED]: facilitated the room discussion and ensured that all key objectives were met throughout the session.
- [REDACTED] minuted the feedback.
- [REDACTED]: minuted the feedback.

List of Attendees

| <u>Workshop</u> | <u>Follow-up Workshop 1</u> Date: Friday 19 th July 2019 Stakeholders: Mix of Aviation, Local Government & Business, and Community & Interest Workshop Time: 10am to 1pm | |
|---|---|--|
| <u>Stakeholders Present at the event</u> | <u>Name</u> | <u>Organisation</u> |
| | [REDACTED] | easyJet |
| | [REDACTED] | Flybe |
| | [REDACTED] | Flybe |
| | [REDACTED] | Flybe |
| | [REDACTED] | Western Air Thrupton |
| | [REDACTED] | Independent Commission on Civil Aviation Noise (OBSERVER) |
| | [REDACTED] | Airspace-4-All |
| | [REDACTED] | Farnborough Airport |
| | [REDACTED] | Western Air Thrupton |
| | [REDACTED] | Bournemouth Airport |
| | [REDACTED] | Hampshire Constabulary |
| | [REDACTED] | Twyford Parish Council |
| | [REDACTED] | Winchester City Council |
| | [REDACTED] | Winchester City Council |
| | [REDACTED] | New Forest National Park Authority |
| | [REDACTED] | Solent Local Enterprise Partnership |
| | [REDACTED] | Airspace Change Organising Group (OBSERVER) |
| | [REDACTED] | Eastleigh Borough Council |
| | [REDACTED] | Compton and Shawford Parish Council |
| [REDACTED] | Townhill Park Residents Association | |

Notes from the Workshop

Minutes of Previous Workshops

Each stakeholder present had received a copy of the external minutes of the initial design principles workshop relevant to their stakeholder type, whether or not they had personally attended. As such, Aviation stakeholders received the external report on the Aviation Workshop on 27th June; Community and Interest stakeholders received the external report on the Community and Interest Workshop on 1st July; and the Local Government and Business stakeholders received the external report on the Local Government and Business Workshop on 1st July.

██████████ – gave the attendees present at this Follow-Up Workshop an opportunity to comment on the contents of the minutes they had each received. None of the stakeholders in attendance sought to offer comment.

Clarification Questions

████ – provided clarification on EU 2018/1048 and spoke about its implications for what SOU is required to do. He noted that some people believe that the ACP was a result of this, but that this was not the case, as SOU's ACP instead relates to the modernisation of airspace.

████ noted that questions had been raised about safety assessments: he noted that CAP725 left stakeholder engagement to the end, while CAP1616 involves engagement from a much earlier stage, before principles have been developed, and that this enables stakeholders to see how proposals have been formulated. He outlined the different stages, and noted that Stage 2B would involve safety assessments, and that 3A would involve a much “deeper dive” into safety. He noted that the full safety case would be presented at the end, and that sign-off would be received from the regulator a month before the changes go live.

████ – spoke about the current issues faced by SOU from a pilot / ATC perspective, and spoke about the distinction between the ACP and the DCO, noting that this workshop was focused on the ACP. He noted that these processes were separated but related in the sense that both were influenced by capacity. He noted that particular questions had been raised about ground infrastructure, but that these were DCO / Master Plan issues, not related to the ACP.

██████████ – was introduced by ██████████ and noted that the main issue faced by pilots approaching SOU from London could not approach in a straight line, due to London's airspace. Any flight arriving from the North must overfly Winchester twice, simply to land. He noted that this issue was not present from the South, where straight line approaches were possible. He noted that this would ideally be the case for arrivals from the North, which would reduce noise, pollution, and track-miles.

████ – clarified that this was only the case for runway 2-0

████ – confirmed that this was the case.

████ – reiterated that the ideal scenario for pilots and airlines would be straight entry in from the north to avoid overflying and double-overflight of Winchester.

Master Plan Slides

■ – introduced ■ who gave a brief overview of SOU's high-level Master Plan. He noted that the Master Plan in full was available on SOU's website, but that he would introduce the relevant portions for the workshop.

■ – On Air Transport Movements (ATMs), he noted that SOU is not at capacity. He explained that while SOU believe it is realistic to double passenger numbers by 2017, there is no plan to double the number of ATMs, due to increased efficiency and larger aircraft. From an airspace perspective, he noted that the that the key numbers are an increase from 53,100 movements per year to 57.800 movements per year by 2037.

■ – noted that there is no plan to increase the airport's working hours, and that any development would be within the existing boundary fence. He also presented an overview of current and projected economic impact. He introduced the plans for future airport development in terms of terminal, runway, etc. development. He presented an artist's impression for how the airfield might look by 2037, highlighting the runway extension but noting that the airport had no plans for the threshold or touchdown zone to change. He noted that taxiways were heavily dependent on traffic movements, demand, and willingness of Eastleigh Borough Council to grant planning permission. He noted the plans to increase the capacity for parking aircraft to the North, and moving existing general aviation hangers, fire station etc. to the south.

■ – noted that the masterplan did not list larger planes, but that the Master Plan slides show larger planes.

■ – explained that there are no plans to introduce entirely new large aircraft, but that there are plans to alter the makeup of the fleet that lands at SOU; specifically, by increasing the frequency of larger aircraft. The individual queried whether the planes proposed were the 737-800, and ■ noted that the most common aircraft at present was the Q400 but that there was a plan to increase the larger number of planes.

■ – requested details of hourly ATMs by 2037 and the associated noise contours with the new fleet mix, rather than simply annual figures, as frequency makes a hug difference.

■ – explained that it is difficult to know at this stage – and that no concrete figures can be provided – as this would depend on airlines, who have yet to do their scheduling. Nevertheless, he indicated that this would likely mirror current plans. He also explained that some detail on this had been factored into noise profiles and was available in the Master Plan.

■ – noted, however, that the Master Plan does not have anything about planes per hour, and that it would be more transparent if it did so.

■ – noted that a planning application is due for the Master Plan at the end of this month and queried whether there would be a longer consultation period for this type of application. She asked what the consultation deadline would be. ■ said he will let Winchester City Council know when he was clear on this, as he didn't know.

■ – noted that the future airport development plan showed development south of the existing terminal, where the 2037 showed the post office building in place. ■ clarified this point. ■ queried that there would be development of the existing apron, and ■ clarified that this was not the case.

■ – explained that the slide showing Southampton Airport’s indicative layout in 2037 is an artists’ impression and not a planning application, and one which shows what SOU could do, and we thought it would be useful to show you from an airspace perspective.

■ – explained that where there is an overlap between the APC and the Master Plan is in reference to the Air Traffic Movements – given an ATM is a departure or an arrival.

■ – returned to the presentation and explained that from an airspace perspective, passenger numbers are irrelevant and ATMs are the element that should be considered. He noted that by 2037 there would be an average expected 155 ATMs.

■ – noted that the types of aircraft and the forecast schedule would be important to know when it comes to assessing route options, as we would need to consider noise, etc.

■ – clarified that ACPs typically look forward 10 years in terms of cost, benefit, and impact, whereas a DCO projects forward for the lifespan of the application. ■ requested for everyone to go around the room introducing themselves.

Points raised regarding Re-Cap of Airspace Modernisation

■ – introduced FASI South and its history, noted that there is also a FASI North, and briefly commented on the introduction of the Airspace Modernisation Strategy (AMS). He noted the Future Airspace Strategy was written in 2010 and that the Implementation process emerged later. the roles of airports and NATS in ACPS.

■ – explained that there are 16 airports involved in the FASI South process; he clarified that airports are responsible for airspace under 7,000 feet because the airports explained to NATS that they wanted to redesign low-level airspace because they wanted relationships with their own stakeholders.

■ – observed that ■ from Airspace Change Organising Group (ACOG) was in attendance and asked her to clarify the role of ACOG.

■ – provided clarification on this point, noting that ACOG was a mixed group with secondees from a range of other groups.

■ – noted that from a community and stakeholder perspective, airports must coordinate their consultation activities, to ensure that communities were all represented and that the approach would be joined-up. He noted that stakeholders’ views may change based on different proposals. He added that the airports need to coordinate on their engagement with their consultees to take into account of cumulative issues, before stating that airports were endeavouring to avoid interacting with other airport’s ACPs, with most airports having design principles to avoid overflight of communities with multiple routes.

■ – asked whether, with the division of responsibility between NATS and airports, he could reasonably assume that there will be a change to the upper limit of SOU’s CTA, particularly to the North, in order to avoid what Flybe and others have noticed – namely the removal of the Winchester orbit. Can we assume that any change here would be Classes B or D airspace, not class A?

█ – noted that nothing could be assumed. He asked for clarification about █ question.

█ – noted that the upper limit of the CTA to the North was 5,500ft, but that at Southampton this increased to 6,500ft. He suggested that to provide acceptable descent gradients, there would need to be an extension to the North and a raising to the CTA base. He stated that GA users wanted to see no rise to the lower levels. He added that if this can be done to the north it can be done to the south.

█ – noted that nothing could be assumed, but that if more airspace were needed by SOU, it would be unlikely to be Class A – though he noted that this was not a commitment, and this could not be confirmed, but was simply his expectation.

█ – explained that there were quite a number of questions / queries about how much extra airspace is required and that this must be linked to the Master Plan. He linked this to the figures on aircraft movements presented by SOU and noted that the figures presented by SOU were available in the masterplan. He noted that the increase in ATMs was not a huge increase from an airspace POV, putting this in the context of 110 to 155 ATM, though it may be for passengers etc. He noted that the important thing to ensure is that ACP must not constrain this growth.

█ – noted that SOU was legally required to use PBM and that we cannot get away from the fact that this concentrates noise. On this basis, he said, the principles that were most important to communities generally relate to mitigating the effects of this concentration.”

█ – he continued, saying that most people were in favour of sharing the burden, but that a small minority supported concentrating. “There are groups that don’t want to share the love

█ – noted that airports and ACPs need to consider all airspace users, including GA users.

█ – presented an overview of the seven-stage process and highlighted that the present stage was Stage 1B. He noted the role of the CAA and pointed out that they were focused on the process, not the principles themselves. He said that we develop our design principles along with our stakeholders and submit to the CAA the evidence of what they said, though this is redacted. He outlined that the CAA are checking whether we have applied the process, looking at how airports have engaged and how they have taken on board feedback. If not, we have to say why.

█ – we then design options which seek to meet the principles, though these principles can contradict each other. We assess them against the design principles, trying to take forward options which best meet as many of the principles as possible. We have to show all options, including ones that may be barking. After we create options we come back to these stakeholder groups and show options. Only then do we do options appraisal.

█ – drew attention to the process of option analysis, and the airport’s selection of a preferred option. He noted that a public consultation would take place when options had been developed, and that feedback would be received through this process, commenting that proposals may change as a result and that re-consultation may be required. He noted that the CAA would comment on the options themselves after the consultation had taken place.

█ – asked a rough timeframe for the process.

█ – noted that ACPs typically took two years.

█ – noted that mid-2023 would be the expectation for implementation, though.

■ – noted as a caveat that any other airport affected by the change could cause the date to move around, and that 2023 was the earliest.

■ – added that it would be useful to have a timeframe for each part of the process.

■ – commented that design principles are a framework against which to evaluate the options. While they may seem directly opposed, you can put in multiple routes over as few people as possible as a general principle. He noted that there is no requirement to use multiple routes but that it is required that we consider it. He noted that having this in the principles was useful as it mattered to stakeholders.

Points raised regarding Feedback Theme of Safety

■ – introduced the theme of safety, outlining the feedback received from the Aviation, Community, and Local Government and Business groups. Much of this involved reading from “Safety Feedback – A Summary” from the Follow-up Workshop presentation.

■ – highlighted the following feedback themes from the presentation: the need for a baseline of safety performance to measure against; the need for a simple airspace structure; the need for routes to be deconflicted by design; the need for safety nets; the need for new technology use to be guided by safety; the need for visual demarcation of CAS for GA; the need to avoid pinch points; and the need to consider the risk of removing NavAids.

■ – explained that according to some feedback, stakeholders said that if airspace boundaries are changing, it would be helpful to have visual elements on the ground to help those who are flying visually, in addition to co-ordinates.

■ – said that it is important to consider the context of changes across 16 different airports, namely that overnight the routes for every airport will be different. He therefore argued that from a safety point of view, simplicity would be very important. He said this would be particularly important for pilots who only rarely flew into SOU.

■ – explained that while he is totally committed to reducing noise, safety is the most important overall. You can have 45 different routes, but if people are confused, this will reduce safety.

■ noted that ATCs were always working in the same airspace, but that crews may only attend a given airport a few times a year, meaning that simplicity was particularly key.

■ – agreed with ■.

■ – told us that he is also involved with Southend Airport. He stressed the need for communications management in the roll-out and implementation of this ACP.

■ – noted that safety is paramount to her, and queried how this ACPO would affect the safety of small aircraft.

■ – explained that if airspace is complicated and changes by time of day, then this could increase the risk of airspace infringement.

■ – queried what happened as a result of infringement.

■ – noted the process herein, and the relevant legal process, noting that the CAA has a legal duty to review all infringements, and that this could result in an infringement awareness course or the need for legal action.

■ – noted that infringements can lead to easyJet planes being pulled off routes and being put into circular holds, causing noise issues. He observed that SOU's airspace has some of the most infringed airspace in the world.

■ – wondered aloud whether they should increase enforcement in this regard.

■ – explained that the process of enforcing against infringement is complicated – ATCs have to sanitise the airspace when they see an infringer, which pulls them off the console.

■ – agreed with ■, and noted that when GA traffic gets near the boundary with controlled airspace – even when the GA traffic is not going to infringe there can sometimes need to be avoiding action for aircraft. He is keen to see greater boundaries.

■ – suggested that this was not correct, and that ATCs were not required to redirect traffic.

■ – confirmed that ATCs did sometimes need to encourage avoidant action.

■ – noted that airspace around SOU is complicated and that it takes real effort to avoid its controlled airspace. If you are going to change it, you need to consider the number of ATCs – his view is that there are not enough controllers at the moment – and that SOU will need more to keep GA traffic safe.

■ – noted that this point was raised later in the presentation. He noted that some PBN routes could take a great deal of space, and that they needed to exist within CTA, though he noted that this did not need to be solely Class D or Class G.

■ – noted the community's desire that safety should not be compromised; that wildlife migration should be considered; that the proximity to roads and schools be considered; and that nature sites should be considered in relation to bird strikes. He asked specifically whether SOU get many bird strikes.

■ – confirmed that bird strikes were not common at SOU but that a lot of work was done to ensure this.

■ – noted that SOU and other airports have to file a Bird Management Plan.

■ – noted the priorities of local government and business: safety as a primary concern; sufficient obstacle clearance retained; flight paths avoiding dense populations; and the risk of unknown aircraft interacting with airspace.

■ – raised the point of overall integrity for GPS systems in terms of terrorism. He said that the GPS system needs to be safe from nefarious individuals.

■ – suggested that this was captured under technology, but requested ■ to point it out if this was not.

Points raised regarding Feedback Theme of Flight Efficiency and Performance

■ – noted that only a small number of aircraft can do short, final, curved approaches, and that this would need to be investigated by the airport.

■ – observed that if an aeroplane can make a continuous climb, it should require less controlled airspace.

■ noted the concerns of communities regarding NOx, air quality, and emissions. He noted that they would welcome a reduction in airborne holdings. He explained that airspace change would not inherently alter air quality, but that they were related, due to the impact of efficiency on e.g. holding patterns.

■ – noted, however, that it's one thing to create a more efficient airspace for commercial planes, but if the result is that GA fly lower to go around, then there's an environmental impact to this.

■ noted the wishes of local government and business: air quality, noise, emissions Clean Air Zone consultation, etc. ■ noted the impacts of secondary development resulting from increased numbers (e.g. park and ride). ■ noted that this would relate more to the DCO/masterplan, but that the airspace change sponsor would have to consider the impact of the change on air quality. He noted the desire to route aircraft over water, and the impacts on air and water quality

■ – pointed out that steeper approaches would focus the impact on Eastleigh. On this basis, he describes a play-off between the benefits of quicker take-off and landing and risk of focusing the impact on Eastleigh.

■ – stated that this would not necessarily be the case for arrivals but may have an impact on departures.

■ – pointed out that there may be differences in opinion for different local authorities. ■ noted that closer local authorities had less desire for steeper approaches, and that authorities farther away would have a greater desire for steeper climbs. He further noted that airlines want to climb more slowly. From an air navigation point of view, you have to mitigate any significant impacts.

■ – noted that aircraft are already pulling up very steeply on departure and that the noise difference between this and arrivals was significant. He noted that there was a huge difference between aircraft, with larger aircraft being significantly louder, and noted that this would have an impact.

■ – noted that aircraft were louder on departure, so the view on this depends on where you live.

■ – noted that one of the issues around air quality is that in various areas places are coming close to limits (and SOU is coming close to limits), so it would be useful to know the impact on air quality of steeper gradients. ■ noted that multiple factors were combining to lead to an exceeding of healthy limits. He noted the presence of the air quality management area, and that an increase in air traffic could reduce the positive impact of efforts being made elsewhere for air quality.

■ – noted that we are looking at a 50% increase in aircraft in airspace – when does number affect air quality – air quality can be affected by places very far away – at what point does this become a problem – do more planes equal more air quality issues?

■ – said that air quality is not a non-issue, but that generally impact is mostly passengers going too and from the airport.

■ – noted that SOU will need to show the impact on air quality of its ACP.

■ – pointed out that since the last workshop various local authorities had declared climate emergencies, and that Winchester and Eastleigh both had 2030 targets for carbon neutrality.

■ – queried whether the airport could therefore expect strategies to be produced by these councils for environmental management.

■ – confirmed that this would be the case, and that Eastleigh Borough Council will be working in partnership with the airport.

■ – noted that this needs to be noted as feedback.

Points raised regarding Feedback Theme of Capacity

■ – introduced the feedback given in terms of capacity, as outlined on the PowerPoint presentation. He provided clarification on what PBN stood for at the request of an attendant from ■. He noted the impact of SOU's DCO on capacity, and that the potential change in the runway may impact this.

■ – explained that SOU have to explain whether additional capacity will cause increase emissions as part of the ACP.

Points raised regarding Feedback Theme of Capacity

■ – noted the feedback presented on noise, pointing out that GA movements could have a significant impact on residents and that this could reduce the positive impact of commercial airspace adjustments. In particular, he explained that additional controlled airspace can increase noise from GA if these are forced lower to enable quieter commercial operations, with the impact on residents this can cause.

■ – noted that the current airspace is very tight, and that if you added new or multiple routes with sufficient gap, this could cause a growth in controlled airspace.

■ – again emphasised that multiple routes must be considered, but that it was not necessary that this should be implemented.

■ – noted that respite meant different things to different people. Does it mean different runway approaches or different times of day?

■ agreed with this, highlighting the different views taken towards respite. He noted that this also included different perspectives on respite regarding noise: does it mean less noise at times of day or no noise at times?

■ – reiterated that everything said here goes onto the portal and is public.

■ – described that if we put different routes in or move routes, then noise will be different and contours will change. He observed that it is the CAA advice to try and avoid changing the established noise contours, but that this is difficult to achieve given that PBN concentrates noise.

■ – commented that JH had eluded to visual impact and that this was a concern for some stakeholders e.g. SDNPA. He also commented that ecological impact needed to be borne out more strongly in the feedback outline, as it was present in the principles but needed more emphasis prior to this. ■ confirmed that this would be added for the next workshop.

■ – added that there are some very sensitive sites in the area which need to be considered – and that at the moment the noise feedback summary does not pick up non-human noise receptors.

■ – noted that multiple respites may not be practical without expanding controlled airspace. She then asked whether an expansion of controlled airspace is off-the-cards.

■ – replied that it is not off the cards, but we are just saying that this is something we need to be cognisant of.

■ – commented that those who wanted to concentrate traffic / do not want to share traffic should be brought to areas where traffic is presently, as the noise levels are unbelievable.

■ – noted that he empathised with ■, but that Eastleigh residents get it inevitably, and that there will be people in Winchester who say ‘I bought my house where it is quiet, and now I am getting noise’ – saying that any change to routes will cause difficulty.

■ – asked how SOU are going to empirically assess consultative responses and come up with defined routes. He said that he can guarantee that you will get different airports assessing this differently within FASI.

■ – noted that consultation responses are normally a mess of for and against, but that responses to consultations are generally in objection, regardless of the proposals.

■ – commented on the emergence of new engine technologies, highlighting Rolls-Royce’s approach to electric engines, and suggested that this should be pointed out to residents, as this could make the pain of additional noise seeming more short-term. Indeed, he stressed that we need to show residents that this is a plan for the long-term (e.g. 40-50 years). We need to show that planes will become quieter, even if they have to put up with more noise in the short-term, to secure long-term benefits.

■ – noted that proposals could not be developed on the basis of promised new technologies.

■ – noted that airport expansion would see a shift from turboprop to turbojet or turbofan, and that this would affect not only the volume of noise but also the type (tone, pitch etc.). Similarly, he said the type of noise will change as you move up through sizes of aircraft. He suggested that this should be considered sooner, rather than later.

■ – queried whether changing the aircraft operating from an airport required and permission, and ■ confirmed that this was not the case.

■ – pointed out that smaller airplanes almost served as their own form of respite for local residents around LHR.

Points raised regarding Feedback Theme of Technology

■ – introduced the feedback given on the theme of technology, as highlighted on the PowerPoint presentation. He noted particularly the need for operators to have fail-safes in place. He summarised the feedback by saying that participants desired for technology to be embraced, but not at the expense of safety.

■ – he observed that feedback included claim that nowadays air traffic surveillance cannot see GA – and that if GA want access to CA at the moment, they need to have more expensive technology.

Points raised regarding Feedback Theme of Resilience

No comments from stakeholders in the room regarding this slide.

Points raised regarding Feedback Theme of Integration

■ – asked for clarification about the classes of controlled airspace.

■ – explained these: Class A (commercial – very restricted); B (not present in UK); C (not relevant here); D (low-level around airport but clearance needed); G (controlled but no clearance needed and open to anyone).

■ – noted that GA generally did not want Class A; that D was acceptable sometimes; and G was very desirable.

■ – noted that Class G was the default setting.

■ – noted that light aircraft collisions tend to be within Class G.

■ – noted that gliders tended to collide with gliders, and that that powered aircraft tended to collide with powered aircraft. He noted that Class G airspace was very safe in general. He further added that you stand more risk of death from rising horses than flight,

■ – queried whether SOU had accounted for the ACC enquiry into the use of airspace at a lower level.

Points raised regarding Draft Design Principles

■ – noted that there are certain over-arching regulations that the ACP must meet: if it doesn't match up with the Air Navigation Guidance 2017 then it will not be permitted and we have to demonstrate that it meets the Noise Policy Statement for England.

■ – asked whether the ACP will need to meet the government's new noise strategy of July 2019, whose consultation was last year, or whether it will be out-of-scope. JL stated that this could be found by searching for the government noise strategy. JH said he was unaware of this.

■ introduced the proposed principles for discussion on a per-theme basis. He noted the need to consider each principle and the extent to which it was reflective of the feedback received. He requested general first thoughts before the individual consideration of principles.

■ – asked whether there is an order of priority for the draft principles statements to be considered against. Are some principles considered more important than others?

■ – noted that safety was typically prioritised, as we need to demonstrate that this ACP delivers an airspace that is as safe or safer. Other principles may be prioritised but that this is not essential. He noted that other airports had listed an order of priority, and that weighting was also an option.

■ – noted that given most of the discussion thus far has related to environmental impact, he suggested that there is potentially a need for the environmental principles to be more strongly-worded or given greater priority. He proposed changing language somewhere to include a need to reduce impact on the environment, specifically: he suggested that the first environmental principle should be changed to mean that the ACP should reduce, not just minimise, the impact. He suggested that there should be an aim of making net gains.

■ – observed that the whole purpose of the AMS is to reduce environmental impact and that there should be a net gain to the environment as a result. He observed that the genesis of the AMS is to deliver steeper and more continuous descents and ascents to reduce environmental impact – so this is built into the Strategy from the outset.

■ – agreed but emphasised that it would nonetheless be important to tighten up the wording of the principle.

■ – stated that it was worth reinforcing the point that principles were just that – not set objectives – and that they would guide and inform the process, not being an absolute “we must”. He stated that the objectives of airspace modernisation were, themselves, ambiguous, ethereal, and non-measurable – and that it was not necessarily helpful to spend too much time on the wording.

■ – noted that when you make design choices the design principles are helpful. Ensuring Airspace Change leads to ‘no worse’ than today or no net gain in environmental impact would be a key factor.

■ queried the meaning of the second environmental principle, arguing that it is essentially meaningless. Do we not want consistency of language between principles?

■ – provided clarification on this point and explained the difference between minimising impact and avoiding degradation. Saying no degradation, which means no worse, is not consistent. Could we have consistent language between principles 1 and 2 of Environmental?

■ – asserted that satellite technology in airspace will have a definite positive impact on air quality, and argued that he had seen at SIACC how satellite technology had improved flight paths, comparing the North and the South of SOU's airspace, through a rationalisation of flight paths and a reduction of holding patterns/plane stacking. He noted that airlines and airports were, really, a small proportion of air pollution. People may go – “rubbish” – but if you compare the two systems working at the Airport today, you will see the difference technology can make – the north looks like spaghetti junction whereas the south doesn't.

■ – noted that using Satellites, ATCs can tell different planes to fly at different speeds to manage approaches and this improve the air quality with no holds. He stressed that we should be concentrating on cars and lorries, which are kicking out pollution.

■ – noted that there was inconsistency in language, and that “should not increase” should be used, rather than “minimise” in the environmental impact principles.

■ – argued that use of “net gain” would be better wording.

■ – noted that any introduction of phrases such as “net gain” or “no worsening” would raise questions of current limits and benchmarks. Better to focus on objectives – airspace design which works to improve air quality and other environmental issues.

■ – noted that he is not an air quality expert but deals with it at Winchester City Council. He said that WCC has no definite understanding of what contribution to air quality that regional aviation makes – as they have no data - there is no data on the contribution of aviation to NOx, as monitors are at ground level (necessarily). He noted that there was no way to establish whether any particular particulate came from an aircraft or from a ground-based polluter, e.g. an HGV. He stated that measurements should all be about direction of travel – and that we should be looking at this in terms of rack-miles – we should be looking to reduce track-miles.

■ – suggested an alternative principle, to which no objections were raised: “airspace change arrangement contributes to improvement to the local environmental impact/air quality”.

■ – commented on the presence of ecological receptors.

■ – provided clarity on the question of ecological impact, noting that there is an element there in terms of flora and fauna – but not as a priority.

■ – suggested that there should be one overarching environmental principle, not three separate ones. No objections were raised to this.

■ – commented that the third principle on noise should include statutory sites.

■ – introduced the safety principles.

■ – suggested that infringements should be specifically mentioned in safety, and that its presence in technology was not altogether appropriate. He stressed that design principles for SOU has to take into account the high-level of infringements.

■ – agreed that we should be looking to reduce the level of infringements.

■ – suggested that infringements could be worked into the first principle.

■ – suggested that this was acceptable as long as it was mentioned.

■ – suggested an alternative wording which was accepted by ■ due to its reference to the avoidance of infringements.

■ – suggested that the principle should aim to be certain – referring to preventing infringements, no “woolly words”. He proposed use of the word ‘avoid’ reduced certainty of things – and would prefer to say ‘should not introduce/add complexity or bottlenecks.’

■ – suggested that it should also refer to enhancing segregation.

■ – noted that segregation was not desirable for all as this would mean that GA users could not enter controlled airspace.

■ – noted that avoiding additional complexity presupposed that airspace could avoid being complex and commented that introducing complexity may prove necessary as a means for improving safety – meaning that ruling out additional complexity could have a negative impact on other aspects of safety. You don’t want to rule out routes with multiple benefits by seeking to avoid complexity.

■ – noted that at Gatwick we are looking at many more ATMs, so complexity will be necessary to marshal then,

■ – suggested whether we could just say ‘as simple as possible’.

■ – said that this would be considered but he was already aware of the complexity of existing airspace.

■ – suggested that SOU’s airspace was actually more complex than LGW’s despite the lower number of ATMs.

■ – suggested that the simplification would be inherent in the changes being made, e.g. efficient departures and organisation procedures.

■ – suggested that a detailed discussion was not yet possible but that simplicity should be a general aim. He suggested that an overarching aim for Flybe was to have predictable routes, specifically for arrivals, as this would contribute to commercial success. He suggested that this should be captured in a principle. He wanted to make clear that as an airline, having predictable routes means predictable fuel – would like predictability from entry to SOU airspace to touchdown, accurate to the nearest mile.

■ – suggested that predictability could be added as an objective of the airspace change proposal, as you could have predictability for both communities and planes. We could have a principle about routes needing to minimise or avoid tactical intervention.

■ – suggested that “procedural deconfliction” could be introduced.

NOISE

■ – introduced the proposed principles for noise.

■ – suggested that the principle about “fair and equitable share” was potentially pre-influencing communities.

■ – said that yes, this was the case, but was the result of feedback from elected representatives.

■ – questioned the notion that there should be no increase in controlled airspace, surely we need this to increase flexibility and achievability of other aims?

■ – pointed out that it important for GA.

■ – pointed out that GA had a loud voice compared to others and noted that it was necessary to think critically about this. “Why should GA have a greater voice than communities?”

■ – felt that ■ misunderstood the nature of the GA community. He noted that GA represented half a million people across the UK.

■ – suggested that this was nonetheless a minority interest and asked why local communities should suffer.

■ – noted that if you squeeze GA into choke points ...

■ [interrupted] – GA is still a minority interest.

■ – noted that government policy is an aim to reduce the controlled airspace down to a minimum.

■ – observed that in an ideal world you would share the volumes of routes and share the burden.

■ – if ACP goes against government policy, it will be kicked out.

■ – said that this felt like a well-rehearsed argument by the GA community. He noted that the Secretary of State’s stated objective was to keep airspace controlled.

■ – suggested that a principle should be introduced, under noise, to increase controlled airspace, to give relief from noise. He then claimed that there was a predisposition against multiple routes in the room, saying that multiple routes and increasing airspace should not be ruled out

■ – advised all to be careful that increasing controlled airspace could increase noise if it funnelled GA into narrow points.

■ – noted that as part of this process we will show radical plans for you to view – these principles will conflict.

■ – noted that if government policy conflicted, then the principles should be able to conflict too.

■ – noted that ■ was unhappy with the presence of principles stating that CTA should not be expanded. He highlighted that they were obliged to work within the principles, and that there would certainly be options involving the expansion of airspace and would not be eliminated.

█ – observed that environmental and noise issues come through strongest from the community.

█ – noted that airspace needs to feature in the ACP as well.

█ – noted that it seemed to him that airspace principle comes from GA, which may limit options available. █ suggested that the first airspace principle’s wording could be changed, as “should not” is very definitive.

█ – suggested, as an alternative, “should seek to minimise the overall volume of controlled airspace” and noted that government policy says we must investigate multiple routes to offer respite.

█ – replied that it would be a shame to rule out multiple routes – and that we should not rule out multiple routes. You clearly have a conflict in government policy here, so you should mention increasing airspace, if necessary, so you can see the conflicting principles.

█ – at the moment it says that we have to consider how to minimise total adverse impact of noise – if we have some options which increase airspace but which meet other issues, this could be carried. What would you like to see?

█ – suggested that a principle could be implemented regarding the investigation of the need to increase airspace. There is a balance to be struck between GA and controlled airspace.

█ – I don’t think we’ll put something in there about investigating.

█ – I want to see something like “should seek to minimise the overall volume of controlled airspace”.

█ – objected to this, stating that he did not want to reduce controlled airspace if there are not reasons for it – if there needs to be an increase, we need to justify it. He stated that a balance needed to be struck, and he was happy with the existing wording.

█ – suggested that the wording of the noise principle which may pre-empt the consultation to integrate consideration of respite.

█ – explained that the reason for this principle was to provide respite.

█ – suggested that the principle should lean towards multiple routes, as this was the key factor affecting █.

█ – repeated that multiple routes must not be rules out. █ was not concerned with controlled airspace in principle, but with the impact of this on noise.

█ – noted that this was already in policy, so having a principle for this was unnecessary. He suggested a principle which explicitly included the consideration of multiple routes – specifically, adding “including consideration of multiple routes” onto the end of principle 2 on Noise.

█ suggested that the first noise principle should make mention of “humans and other receptors” of noise, not simply on communities.

█ – proposed removing “on communities” from this line to be more inclusive.

■ – queried whether this was developed in relation to the movement of planes onto different take-off paths, and queried how different routes could be developed in the case of SOU, where people would begin to have low-flying planes overhead where this was not the case before. He stated that if you had multiple routes then people have low flying planes over houses they never had before – and there will be more complaints.

■ – noted that the principle focused on total impact, not the number of people impacted, and that sometimes reducing the impact would require an increase in the number of people impacted.

■ – again suggested a removal of “on communities” from the first noise principle.

■ – suggested that the final noise principle was not relevant as it was not an ACP issue and was tied by a S106 agreement.

■ – confirmed this but noted that it was important for the principles to reflect all feedback. People mentioned it in their feedback, basically.

■ – queried whether this was related to sub-7000ft levels. He noted that it was almost impossible to avoid flying over SDNP and that noise was almost inaudible above 7000ft.

■ – confirmed that the ACP related to sub-7000ft and indicated they will try and provide an option that doesn't overfly it SDNP.

■ – queried whether there was an order of priority for AONB and densely-populated areas.

■ – stated that government policy was not to prioritise either.

■ – noted that time was short but that all participants had been provided with feedback forms and could therefore provide written feedback to be included.

■ – queried the point about complexity, asking whether we have ruled out making things more complicated.

■ – Replied he had not and explained that SOU's airspace was already complex.

■ – suggested that the words “should seek to” could be implemented into the principle about complexity to say that we haven't ruled it out.

■ – suggested that SSSIs (Sites of Special Scientific Interest) should be added to the third bullet on noise.

■ – asked what evidence there of noise impacts on SSSIs and their designation. He argued that this is captured by the third point under Environment.

■ – argued that the difference is between the location itself and the receptors e.g. animal species.

■ – stated that SOU was probably unique as an airport surrounded by national parks.

[At this point, ■ left the room].

- – emphasised that you need to consider the National Parks’ statutory purposes.
- – asked whether we should remove the principle on night-flights.
- – noted that it would not be correct to have it as a principle.
- – suggested that the principle about operating hours would be removed, with an explanation of why.
- – suggested that on the third technology bullet, ADS-B could be replaced with electronic conspicuity

■ summarised the main changes from the above exchange as follows:

Second Bullet of Safety: Should not introduce additional complexity and bottlenecks in both the network and class G airspace and should contribute to a reduction in infringements.

All Environment: Should ensure that the airspace change contributes to an improvement to the local environment, ecology, and air quality.

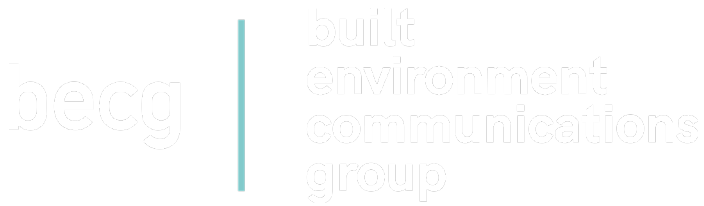
First Bullet on Noise: Should minimise the total adverse impact of aircraft noise.

Second Bullet on Noise: Should offer a predictable, fair, and equitable share of traffic across the arrival and departure routes, including a consideration of multiple routes.

Third Bullet on Tech: Should consider the use of electronic conspicuity to improve airspace integration where possible.

Glossary

| | |
|-----------------------|--|
| <u>ACP</u> | Airspace Change Proposal / Process |
| <u>AGS</u> | AGS Airports Ltd |
| <u>ANSP</u> | Air Navigation Service Provider |
| <u>ATC</u> | Air Traffic Controller |
| <u>ATM</u> | Air Traffic Management |
| <u>ATZ</u> | Aerodrome Traffic Zone |
| <u>BOH</u> | Bournemouth Airport |
| <u>CA</u> | Civil Aviation |
| <u>CAA</u> | Civil Aviation Authority |
| <u>CTA</u> | Control Areas |
| <u>DME</u> | Distance Measuring Equipment |
| <u>EC</u> | Electronic Conspicuity |
| <u>GA</u> | General Aviation |
| <u>GBAS</u> | Ground Based Augmentation System |
| <u>GBN</u> | Ground Based Navigation |
| <u>GNSS</u> | Global Navigation Satellite System |
| <u>GPS</u> | Global Position System |
| <u>ILS/MLS</u> | Instrument/Microwave Landing System |
| <u>IOW</u> | Isle of Wight |
| <u>IRT</u> | Instrument Range Testing/Test(s) |
| <u>LARS</u> | Lower Airspace Radar Service |
| <u>MATZ</u> | Military Aerodrome Traffic Zone |
| <u>NATS</u> | National Air Traffic Services |
| <u>NAVAIDs</u> | Ground-based navigational aids |
| <u>NDB</u> | Non-Directional Beacon |
| <u>PBN</u> | Performance-based navigation |
| <u>SON</u> | Statement of Need |
| <u>SOU</u> | Southampton Airport |
| <u>UHF</u> | Ultra-High Frequency |
| <u>VFR/IFR</u> | Visual Flight Rules/Instrument Flight Rules |
| <u>VOR</u> | VHF (Very High Frequency) Omni-Directional Range (VOR) |



Development of design principles for
Southampton Airport's airspace change
proposal

Follow-Up Workshop 1

Location: Holiday Inn Eastleigh, Leigh
Rd, Eastleigh, Hampshire, SO50 9PG

Tuesday 23rd July 2019

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Document Overview

This document is an overview of a Follow-up Workshop held with a mix of Aviation, Local Government and Business, and Community and Interest stakeholders on Tuesday 23rd July regarding the development of design principles for a change in Southampton Airport's airspace change proposal.

Please note that all conversation was summarised in the interests of transparency, although not everything stated by attendees was always applicable to Southampton Airport, the ACP or the Design Principles.

Workshop objectives

The objectives of the workshops were to:

- Increase awareness and understanding among participants about the need for airspace change and of the process for bringing it about.
- Offer clarification on points raised in feedback at the previous three design principles workshops on 27th June and 1st July.
- Provide a summary of the feedback received during the first three design principles workshops, from the feedback received in writing in response to these, and from the Focus Groups held.
- Explain the initial design principles statements that we have developed based on the feedback received so far.
- Gather feedback from stakeholders in response to these draft statements, with the aim of refining the design principles for submission to the CAA.

Attendees representing Southampton Airport

SOU attendees

- [REDACTED]: provided a brief overview of the Southampton Airport Master Plan at the beginning of the presentation, to address a request for clarification made by stakeholders at the initial workshops. He latterly provided additional information to stakeholders' questions where necessary, both in response to the presentation and when matters arose that required SOU input during the design theme discussions.
- [REDACTED]: observed the session and provided additional information in response to stakeholders' questions, where necessary.
- [REDACTED]: observed the session and provided additional information in response to stakeholders' questions, where necessary.

Trax attendees

- [REDACTED]: led the presentation throughout the workshop; walking stakeholders through the points of clarification which emerged from initial workshop feedback; summarising the feedback received in response to the first airspace design principles workshops; presenting the feedback from the focus groups, held in addition; providing a recap of the need for Airspace Modernisation; outlining the proposed design principles which had been formulated in response to all feedback received; and seeking feedback from stakeholders in response to these draft principles.
- [REDACTED]: observed the workshop and provided additional information to stakeholders' questions, where necessary.

BECG attendees

- [REDACTED]: facilitated the room discussion and ensured that all key objectives were met throughout the session.
- [REDACTED]: minuted the feedback.
- [REDACTED]: minuted the feedback.

List of Attendees

| Workshop | <p align="center"><u>Follow-up Workshop 1</u> Date: Friday 19th July 2019 Stakeholders: Mix of Aviation, Local Government & Business, and Community & Interest Workshop Time: 10am to 1pm</p> | |
|--|--|--|
| Stakeholders Present at the event | Name | Organisation |
| | ████████████████████ | Eastleigh Borough Council (Southampton Airport Consultative Committee) |
| | ████████████████████ | Eastleigh Borough Council (Southampton Airport Consultative Committee) |
| | ██████████ | CPRE Hampshire |
| | ████████████████████ | Bishopstoke Parish Council |
| | ████████████████████ | Lasham Gliding Society |
| | ████████████████████ | |
| | ██████████ | |
| | ████████████████████ | Wickham Society |
| | ████████████████████ | Xclusive Jets |
| | ████████████████████ | Bath, Wiltshire, and North Dorset Gliding Club and British Gliding Association |
| | ██████████ | Goodwood Aero Club |
| | ████████████████████ | Southampton Common and Parks Protection Society |
| | ██████████ | NATS |
| | ████████████████████ | Hampshire County Council |
| | ██████████ | Airspace Change Organising Group (OBSERVER) |
| | ████████████████████ | Airspace Change Organising Group (OBSERVER) |
| | ████████████████████ | Dorset Gliding Club |
| ██████████ | Dorset Gliding Club | |

Notes from the Workshop

Minutes of Previous Workshops

Each stakeholder in present had received a copy of the external minutes of the initial design principles workshop relevant to their stakeholder type, whether or not they had personally attended. As such, Aviation stakeholders received the external report on the Aviation Workshop on 27th June; Community and Interest stakeholders received the external report on the Community and Interest Workshop on 1st July; and the Local Government and Business stakeholders received the external report on the Local Government and Business Workshop on 1st July.

██████████ – gave the attendees present at this Follow-Up Workshop an opportunity to comment on the contents of the minutes they had each received.

██████████ – of Lasham Gliding Club suggested that he had not received a copy of the internal report from the initial Aviation Workshop on 27th June.

██████████ – of Dorset Gliding Club suggested that she had not received a copy of the internal report from the initial Aviation Workshop on 27th June.

██████████ – of Built Environment Communications Group (BECG) stated that she would investigate this for both ██████ and ██████

BECG's communications records indicate that ██████████ and ██████████ of Lasham Gliding Club were sent a copy of the minutes from the initial Aviation workshop on 10th July, on the basis that ██████ and ██████ had previously been sent communications for the Club. A copy of the minutes for this workshop were subsequently sent out to ██████ and ██████████ direct email addresses at 3.35pm on 23rd July, for the avoidance of any doubt. It was agreed that their direct emails would be included for future communications with Lasham Gliding Club.

BECG's communications records indicate that while an email was sent out to ██████████, ██████████ and ██████ of Dorset Gliding Club with the minutes of 27th June's initial Aviation Workshop on 10th July, this was not received by ██████ owing to a typographical error in the email address held for her. This having been established, an email containing the report of the initial Aviation Workshop was sent to ██████, ██████, and ██████ at 3.59pm on 23rd July.

As no further issues or questions were raised in relation to the minutes of the three initial Airspace Design Principles Workshops (held on 27th June and 1st July), ██████ moved on to the next section of the presentation.

Clarification Questions

■ – then provided a recap of the questions and points of clarification which emerged from the initial three workshops. As part of this section, ■ outlined the regulatory requirements on SOU, including (EU) 2018/1048.

■ – also explained the reason for the ACP was not predicated on (EU) 2018/1048 but FASI-S and the requirements for airspace to be modified to a PBN standard. As part of this, ■ explained the (EU) 2018/1048 requirement for implementation of PBN for arrivals and departures by 2024 and the need to remove conventional navigation by 2030.

■ – enquired about the Airspace Modernisation Strategy (AMS), seeking more information on what this mandates SOU to do, especially how it relates to the delivery of PBN and implementing rules.

■ – replied that there are 15 objectives to the AMS, most of which are linked to EU regulations. He further noted that there are a number of different implementing rules, including the Pilot Common Project, which does not apply to SOU. He clarified that while the AMS links to these rules, the AMS itself has been prompted by FASI-S, before adding that there is no legal requirement anywhere for SOU to implement additional routes for arrivals and departure – rather, SOU are obliged to upgrade one of their arrival and one of their departure routes to PBN specifications as well as an RNP APCH to Runway 20 (LNAV, LNAV/VNAV and LPV).

■ – asked whether all arrival and departure routes out of SOU need to be modernised to PBN.

■ – clarified that there only needs to be one route to at least RNAV1 PBN specification to/from each end of the runway and there is no legal requirement for additional SIDs/STARs or Controlled Airspace.

■ – added that FASI-S requires a PBN systematised airspace environment and includes a requirement to remove reliance on conventional navigation by 2030. The ACP is expected to meet both of these.

■ of New Forest District Council – asked PBN means / stands for?

■ – replied that this stands for Performance-Based Navigation, or ‘sat nav’ for planes, and that it allowed for highly accurate flight with less pilot intervention. He explained that this contrasts to today where most procedures use conventional navigation and require controllers to manually intervene very frequently.

■ – noted, however, that PBN does mean that routes will be concentrated, and that from a community perspective this means that Design Principles tend to relate to mitigations of this.

■ – stated that SOU and BOH airspace expanded to roughly Wareham and asked if there was a requirement for Class D airspace in a route from Exeter. She explained that at the moment they have many planes coming around airspace – which may be Class D – Is there a regulation for more Class D? People coming in from Class G from Exeter or BOH are 3,000 feet above us – sometimes even 2,000 feet – and we winch at 2,000 feet.

■ – explained that while instrument flight procedures should be contained within controlled airspace, there is no requirement to expand controlled airspace. He explained that there was some requirement to implement controlled airspace for some aerodromes but that this did not apply to SOU. He added that for SOU there is no requirement to expand airspace.

█ – asked if there was a desire to expand to the west.

█ – said that this is not a question he can answer as it would relate to BOH's ACP.

█ – asked whether █ could say more about CAA policy changes due next year. He explained that there will be a CAA policy change next year and asked what its impact would be on this process.

█ – said that he was not aware of any planned policy change next year but was able to outline a number of potential changes which may take place. He noted that DfT may be planning to change legislation next year to force airports to start their airspace change plans.

█ – said that there was a proposal for new legislation to go before Parliament next year – which could come into place in 2021+, but was not detailed in this answer.

█ – explained that there was some proposed draft legislation for Autumn 2020 but that this was a long way off.

█ – asked if this was the primary supporting legislation for FASI-S, requiring ACPs.

█ – replied that this is the case as far as he was aware.

█ – explained the process of design principle development and options appraisal. He explained that baselines would be developed in Stage 2B of the ACP, which was not likely to take place until quarter 2 or 3 of next year.

█ – invited █ of Southampton Airport to outline current ATC issues faced by SOU.

█ – introduced himself and noted that he had spoken to the ATC team at SOU. They mentioned to him that one potential solution to their issues would be to exploit technology, such as mandating transponders or electronic conspicuity. In addition, he explained that SOU could introduce procedurally deconflicted routes, which could have the benefits of reducing workload, reducing continuous monitoring from the controllers, a safer process with less segregation.

█ – noted that in some cases GA traffic may be delayed. He also noted that SOU does not have a PBN route or sufficient controlled airspace, and that people living in Winchester are being overflown twice as a result, and that SOU would be attempting to alleviate the need for an orbit around Winchester if possible. He said that one of the things we are looking at is alleviating the need for Winchester orbit.

█ – clarified this point, noting that incoming flights coming from the north overfly Southampton, then Winchester, and that this is controlled manually by ATCs. He said that this requires high radio workload and this takes place within tight controlled airspace boundaries. He noted that if SOU had a PBN approach this could lower controller workload, which could free up free up time for ATC to work with GA traffic to provide ATSOCAS

█ of CPRE Hampshire – noted that there are here today the airport experts and technical experts, but that there are also representatives from a non-technical background, including environmental people, who are concerned about the impact, and people who know what the community want. He said that community members wanted to know who would make the decisions; whether there will be changes to flight paths; and what impact this could have on ordinary people on the ground. Could the experts remember this? People here may be naïve about the technology but are very concerned by

impact – that’s what people from the environment and community and wanted to know about. He then asked [REDACTED] to address these issues.

[REDACTED] – replied that the issues he raised would be addressed in the overview of feedback in due course, following the explanation of technical issues

Master Plan Slides

[REDACTED] of SOU – presented an overview of the SOU Master Plan. He noted that some of the feedback from groups was that there was a blurring and misunderstanding of the difference between the Master Plan and the ACP. He noted that while the Master Plan and the ACP are completely separate, and should be treated as such, he acknowledged that there is some overlap between the two, since ground operations are necessarily affected by airspace. That said, he emphasised that the processes for determining the Master Plan and ACP are different and that the documents online are separate.

[REDACTED] – said that he wanted to share some of the headline features of the Master Plan to the group, presenting SOU’s assessment of its future ATMs, increasing from the 39,300 ATMs in 2017 to 57,800 in 2037, saying that these are what SOU understand to be the demand in the region and what we feel we can deliver.

[REDACTED] – noted that the number of ATMs obviously impacts what SOU need in the sky and that the desire to increase ATMs would impact the ACP, as provision needed to be made for these. He added that passenger number growth in line with the Master Plan is less relevant to airspace than it is to ground infrastructure.

[REDACTED] - requested that feedback on the Master Plan be await on the Development Consent Order (DCO).

[REDACTED] – added that there will be no requirement for night flights within the Master Plan and that all development would be contained within the existing site boundary.

[REDACTED] – asked if there were ATM figures for 2008, and noted that they were higher in 2008 than 2017, and asked if these figures were available. He wondered how these numbers relate to proposed ATMs in 2037.

[REDACTED] – noted that these figures were not available at present but could be provided later.

[REDACTED] – noted that the numbers were highly relevant. He noted that SOU seemed to desire an increase in airspace capacity as a result of its desire to increase ATMs, yet everyone should be aware that in the past a higher number of ATMs had been accommodated within the same airspace.

[REDACTED] – noted that the capacity question was not present yet.

[REDACTED] – stated his belief that there has been a 20% drop in ATMs in the past and that there had been a significant reduction in the forecast of ATMs, claiming that in 2006 the forecast made for 2030 was 93,000 ATMs. He therefore disagreed with the requirement for more airspace capacity.

[REDACTED] – argued that on this basis it can be seen that no airspace change is required to support the projected movements from the Master Plan.

■ – said that it was not yet clear whether an increase in ATMs would require airspace change to support it but suggested that it would not be a shock to him if it did not. He added that the runway extension proposed by the Masterplan would need to be made, but that an increase in movements from 110 to 155 movements per day on average is not monumental.

■ – claimed that at Lasham Gliding Club they have 64,000 movements per year and that SOU's numbers were not extreme.

■ – stated that there had been approximately 45,000 ATMs in 2008. He reiterated that the driver for airspace change is not the Master Plan, but that the future airspace design should not constrain the forecasts within the Master Plan.

■ – noted that while there may not be a capacity constraint at SOU there is a capacity issue in South East England. He noted that PBN is an EU mandate – which provides for safer, cleaner, quieter transport – and caters for significant benefits within the South East England. He stressed that this ACP is part of the FASI-S process, and that it must therefore be considered in this context – where you have another 16 airports and perhaps the most congested airspace in the world – it's important that we understand this.

■ – noted that even with the comments made about why the ACP is needed, we need to consider the environmental side of airspace change, such as potential to bring down fuel costs and reduce the areas overflown – the environmental side must not be forgotten.

■ – agreed with this point and emphasised that the Master Plan is also about the sustainable development of SOU, and that environmental aspects are key to this.

■ – then outlined SOU's plans for Future Airport Development providing an outline of the airport's potential future development. He introduced the runway extension for which a DCO would likely be submitted to Eastleigh Borough Council within a month. He showed an artist's impression of what may be possible in 2037, though these would not constitute part of the DCO.

■ – emphasised that thresholds at either end of the runway would remain the same despite the extension, therefore approaches would not be affected.

■ – queried the potential for a tunnel under the runway to link the aprons at the bottom and top of the artist's impression.

■ – agreed to talk to ■ about this further after the workshop, noting that this was not part of the ACP.

■ – was not happy with this answer, suggesting that ■ and ■ can't or won't give answers to questions relating to the Master Plan.

■ – stated that he was happy to answer questions, but separately from the ACP workshop, as it related to the DCO. He added that he would be happy to answer questions afterwards.

■ – returned to the presentation. He noted that the relevant element of the Master Plan is the number of movements that the airspace needs to accommodate, as well as the types of aircraft. He noted that this runway extension will allow more frequent use of larger types of aircraft.

■ – asked what the reasoning is behind the runway extension if the use will remain the same.

■ – responded that it was to facilitate different types of aircraft at SOU, and that it related to SOU's anticipation of its future, in order to facilitate greater numbers of certain aircraft at the airport. He added that most of SOU's fleet is turbo-prop and that an extension would allow SOU to accommodate larger aircraft – we think that these plans give us what we need for more A320 and B737 aircraft to use the airport – and to give airlines the ability to fly to more distant destinations. These would be the same types of large aircraft already using the airport, but more frequently.

■ – noted that an increase in the number of larger types of aircraft using the airport is something they need to consider for the ACP, including because of their environmental impact.

■ – of Hampshire County Council noted that she is the environment lead among politicians on Hampshire County Council. She requested clarification on the planning applications will be submitted – she thought there might be planning applications for both the ACP and Master Plan.

■ – clarified that the process for the implementing the Master Plan will be through an application to Eastleigh Borough Council, with consultations on the ground infrastructure changes. He added that the ACP would not be a planning application, but was part of FASI-S.

■ – clarified that the ACP was will go through the CAA.

■ – asked whether local authorities will be invited to comment on the ACP, citing the case of the Farnborough Airport, where she suggested that local authorities did not have a chance to comment on its ACP.

■ – Advised that LAs will most certainly be invited to comment and indeed that was why they had been invited today, to engage at the very start of the process.

■ – requested clarification about the timelines for a decision on the ACP and its implementation.

■ – noted that the DCO would be submitted in August to Eastleigh Borough Council.

■ – noted that the earliest that the ACP would be submitted would be around 2021/22, with implementation around 2023/2024. He mentioned that there is dependency on the airspace changes for other FASI-S airports, and that this timescale could move.

■ – sought clarification about if the Winchester Loop might end.

■ – noted that this could not be guaranteed and would relate to the timescales and options of the ACP.

■ – noted that members of the public will take the view that extending the runway extension will mean more movements.

■ – clarified that they were indeed suggesting that there would be an increase in movements; with the runway extension SOU could go from 2 million to 5 million passengers, given more movements and larger aircraft.

Re-Cap of Airspace Change Process

■ – introduced the themes which had been considered at previous workshops. He presented a recap of FASI-S, and the ACPs which were taking place throughout the UK. He noted that while each airport was responsible for its own ACP, ACOG was working to ensure that they were complementary. He noted that all 16 FASI-S airports except Bournemouth (BOH) had begun their processes. He further explained the role of NATS in this, noting that they are responsible for all airspace above 7,000 feet.

■ – further explained that the process of co-ordinating the process of airspace change across 16 airports is extremely complicated, and that as such the timelines are fluid.

■ – introduced SOU's ACP, and the constraints and opportunities this presented, including the meeting of growing demand; the potential for improving precision and flexibility; and the potential for development of airspace at lower altitudes, including the potential for changes to controlled airspace boundaries. He explained that there was a desire to not increase controlled airspace, and that any increase would aim to be mitigated.

■ – noted that controlled airspace is generally managed by air traffic – and that as a general rule if airspace grows to accommodate commercial planes, it has the potential to squeeze uncontrolled airspace and limit GA traffic. He added that it is industry intention not to increase controlled airspace but on the one hand, PBN can enable continuous climb and descent and free up more CAS further from the airport, but on the other hand, PBN may require more controlled airspace in the lateral dimensions at lower level where large turns are required.

■ – introduced the regulatory airspace change process and introduced the process of developing design principles. He noted that all principles, when further developed during this session, would be shown again to the attendees present, and that feedback would be requested. He summarised the process, including the CAA's approval of draft consultation material, and that consultation would include options, including SOU's preferred options. He noted that there is a requirement to address consultation feedback, and that SOU may be required to re-consult on its options if the changes made are significant and result in a change to the impacts described in the previous consultation. He noted that designs would then be reviewed and submitted to the CAA for approval. He noted that this process would culminate in an implementation period and a post implementation review, 1 year later.

■ – noted that the design principles were a framework, governed by overarching policy which absolutely must be met. He noted that options would aim to be designed to meet the principles. He noted that principles could contradict each other, and that option development would aim to meet the standards of the principles. In short, he said, while there is no magic airspace design which will meet everyone's needs – it's about finding an option which will meet/balance as many of the principles as possible whilst adhering to policy.

Points raised regarding Feedback Theme of Safety

■ – presented a summary of the feedback received on the theme of safety. He explained the summarised feedback in greater depth: the need for Cs boundaries to align within VFR reporting points; the need to avoid pinch points; the factors relating to NavAid removal; the proximity of roads and schools; and the importance of nature and environmental considerations. He noted the importance of managing unauthorised airspace infringements.

■ – drew a number of points out verbally: that in the feedback a lot of pilots said that they are currently using NavAids to stay clear of controlled airspace, and that as such there were requests not to get rid of all of the NAVaids to maximise ANSP efficiency– but to keep some redundancy in the system for GA aircraft to stay out of controlled airspace.

■ – noted that safety was perhaps the simplest theme, and there was agreement in the room that airspace must be safe.

■ of Bishopstoke Parish Council – noted that security was a key issue in the discussions he had at the last workshop he attended on 1st July. Not so much security of passengers, but a concern regarding alleged new technology which is not proven well enough to be used. He cited the example of the recent Boeing aircraft which have crashed recently. He explained that he works for a company which tends not to use things designed yesterday, but stuff which was designed within the last 10 years.

■ – replied that this feedback would be considered under the theme of technology, but also noted that PBN is not new technology. He said that it has been around for over 10 years. He said that although you are right to say that it relies on satellites there is a requirement for redundancy as part of the process, and that SOU must demonstrate to the regulator that it would be sufficiently secure and reliable.

■ – noted that the possibility of the failure of the GPS system was a front-and-centre issue for the government at the moment. He added that you will have to have a minimum operational system to fall-back on – so there will be a number of NavAids – and there are a number of discussion ongoing regarding Galileo.

■ – noted that if there was a GPS failure, there would be bigger issues than ATC.

■ – noted that the presentation was important but said that this was an extremely high level overview.

■ – clarified that the presentation section on feedback is a high-level summary of the feedback.

■ – argued that this is an important document because it is the beginning of SOU's synthesis of feedback received and the beginning of SOU's principle development process, and it was important not to gloss over it or rush through it.

■ – replied that we will show the draft principles later which we think cover this concern.

■ – enquired about the safety implications of possible runway extension to the North. He asked whether there would be safety implications regarding the area to the South – he noted the dispute to the south about Marhill Copse and the trees, and asked if extensions to the North would have similar implications, especially given the potential development area to the North.

■ – noted that, yes, there will be a safety assessment of any changes to the runway.

■ – noted that the safeguarding of the tranquillity of the National Parks does not seem to be on the list.

■ – noted that this is picked up on the feedback section regarding noise.

■ – noted that the summary of the feedback in this presentation seems to be extremely high-level and that he did not recognise some of Lasham's points within the summary provided. He then enquired about what would be the output of the session.

■ – added that he did not recognise in the presentation feedback summary thus far some of the points Lasham made in their feedback on the first workshop, noting as an example that they do not want chokepoints around Class G airspace to be created or exacerbated; that environmental and safety needs to be published so that all stakeholders can view it with transparency ... He claimed not to see a carrying forward of the specific to the general.

■ – replied that the output of this workshop will be a report of the minutes of the workshop and any proposed changes to the draft design principles. He replied that Lasham's feedback is reflected later in the presentation. He continued by saying that all feedback received will be submitted to the CAA and published publicly on their portal. He asked both representatives of Lasham Gliding Society to hold that point as we walk you through the feedback summary and asked for further comment from them if they feel something specific has not been addressed later on in the presentation.

■ – claimed that in order to get a summary onto one slide Trax have generalised to the point that it is hard to see that our inputs have not been taken into account.

■ – replied that this is one of the drawbacks of a presentation. Slides are intended to guide the conversation and that all feedback received had informed the summary on the slides at this stage. He noted that when the principles were presented at the end, it would be possible for attendants to feedback on these and at that point, if feedback had been missed, it should be raised again.

Points raised regarding Feedback Theme of Flight Efficiency and Performance

■ – introduced the feedback relating to this theme, as outlined on the PowerPoint. He noted that airports historically proposed airspace change to improve their efficiency, and that other aviation stakeholders had provided feedback to suggest that this could have negative implications for their own efficiency. He noted that this could also have implications for noise.

■ – he noted as part of this feedback summary that local government stakeholders considered emissions to be as important as aircraft noise.

■ – replied to this point by noting that many local authorities surrounding SOU had declared climate emergencies in recent weeks – asking how this squares with SOU's ACP plans. She declared herself surprised at the seeming low priority given to carbon emissions and environmental considerations. She noted that this would be the major point of pushback on planning applications at the moment. She continued by saying that there seems to be a low commitment to climate neutrality in this feedback – it's not hitting her as a high priority in this list.

■ – agreed with ■ that environment and air quality and the environment should be at the top of the political agenda at local level and even more so at national level. He stated that this is a high priority for the government regardless of the ACP process.

■ – noted that this feedback would be taken onboard and clarified that there were different environmental considerations given priority at different altitudes. He noted that the PowerPoint was not listing items in priority order, but that CAP1616 had been developed with the impact on communities in mind. Specifically, he noted that noise is a specific priority below 4,000ft.

■ – noted that noise and CO₂ are not contradictory and need to be considered together.

■ – ■ stated his agreement with this and noted that he had simply been reciting government altitude-based priorities, which say that noise is a priority below 4,000 feet.

■ – explained that there is a government air quality strategy that has recently been produced, and that it had recently been revised.

■ – asked for clarity, as he believed that it is something that had been brought up at a previous workshop.

■ – stated that it is the revised government air strategy 2019 – and that it was about time that the aviation took account of it.

■ – noted that she was surprised that the community section of the flight efficiency feedback summary does not include a point about noise, and that she felt it must be captured. She mentioned that at the last workshop she went to late time there was a teacher who couldn't open her windows because of flights going over. She feels noise needs to be captured more.

■ – confirmed that noise will be considered in a later feedback summary.

Points raised regarding Feedback Theme of Capacity

■ – introduced the feedback received on the theme of capacity, as shown on the PowerPoint. He noted that many airports' Master Plans were more ambitious than SOU's, with much larger forecasts.

■ – observed while outlining this feedback that SOU has rather a lot of cancellations and diversions at present.

■ – noted that PBN had pros and cons, and that it must be smartly applied.

■ – noted the disbenefits of operating at maximum capacity.

■ – noted that he had provided earlier clarification on the different applications and processes which SOU would be undertaking (relating to the DCO and the ACP).

■ – noted that a cost-benefit analysis would be undertaken as part of the ACP.

■ – asked if this cost-benefit analysis would include any potential impact on general aviation – asking “will you commit to a cost-benefit analysis on GA as part of this”.

■ – after some thought said he believed the CBA does include all airports and airspace users, so I believe it would be in there.

■ – argued that airspace designs need to be future-proofed – and that one way of potentially doing that could be to agree what SOU need in terms of current and future capacity, but only implement extra airspace to meet this when the capacity when they are needed – and suggested a phased implementation.

■ – suggested that it is potentially possible to use a phased implementation or introduction of airspace change.

■ – asked whether, if phased implementation based on demand was agreed, some airspace change may never be implemented.

■ – replied that yes, in principle, this could be the case.

■ – noted that in previous meetings it was mentioned that there is a possibility of turning on and off airspace, which she believes is done in Europe.

■ – noted that flexible-use of airspace did exist within the UK, and that airspace at SOU was disestablished when the airport was closed.

■ – argued that the line relating to ‘future-proofing so further changes are not needed’ goes too far and argued that there needs to be some provision for review within the design principles. She agreed that implementation in tranches or phases would be sensible, but she stressed that provision for review was fundamental.

■ – sought to clarify whether he understood ■ point to be a suggestion that there should be a mechanism for undoing implementation if capacity were no longer needed. Whether there should be a facility for revision of airspace if capacity is not filled.

■ – nodded in reply to this.

■ – explained noted that at Stage 7 of CAP1616 there is a post-implementation review (PIR) stage which gives a chance to check that a sponsor’s claims have come into fruition. He noted that this more typically related to impacts, but that there had been instances in which controlled airspace had been disestablished when traffic had not materialised, such as at Southend. He stated that he did not believe there was a formal review process after the PIR. He stated that this would be a CAA or DfT question.

■ – noted that any organisation could submit an ACP.

Points raised regarding Feedback Theme of Noise

■ – presented an introduction of the feedback received regarding the theme of noise, as outlined on the PowerPoint. He noted that noise from GA traffic could increase as a result of changes in controlled airspace. He noted that continuous climb and descent would, in principle, reduce noise. He noted that respite routes may not be possible in the case of SOU, but that SOU was nonetheless required to consider multiple routes including respite routes. He noted that multiple routes could require additional controlled airspace.

■ – queried what SOU's proposal is for its ACP.

■ – explained that SOU had not made any proposal yet, but that ACP sponsors were required to consider respite under Air Navigation Guidance 2017

■ – noted that respite for one must inevitably mean pain for somebody else.

■ – confirmed this, and confirmed that SOU had not yet produced any route designs. There are no designs proposed at all at this stage.

■ – noted that he was in the Community and Interest workshop on 1st July with a representative of the National Farmers' Union, and that during this meeting he mentioned that poultry can be caused to take fright by certain unexpected noises. He also explained that at this meeting they discussed consideration of amenity areas which are used principally for recreation, such as national parks, AONBs, and green areas in Southampton, such as Southampton Common.

■ – explained that there are specific references to tranquillity areas later in the design principles. He added that CAP1616 and/or webTAG makes specific reference to AONBs, SSSIs, and National Parks.

■ – requested that areas where tranquillity is important be specifically added to the design principles under Noise.

■ – noted as part of this feedback review that if you implement new routes you will move noise, and that as a result the noise contours will change. He explained that noise contours were assessed based on actual radar data and noted that moving routes would change these. He noted that it was therefore impossible to change routes, ATMs, or aircraft types without altering these contours. He noted that there had been a request to maintain SOU's current noise contours, and that there had been a request to reduce noise pollution.

■ of New Forest District Council – noted that the Local Government and Business group at the previous workshop did pick up on poultry, yes, but that they had also discussed noise's impact on nature beyond poultry. He said that in this meeting there was a lot of emphasis on National Parks – and that he was surprised this was not more reflected in this feedback summary.

■ – explained that there is always a trade-off between routes over National Parks and open spaces or residential areas – adding that generally people want no routes over houses, but also that generally people do not want them over the open spaces they use to find tranquillity. There is no right or wrong answer to this.

■ – mentioned that PBN routes provide more options as they give you the ability to accurately fly along particular routes with greater precision – for example you can accurately route along the length of rivers – Vienna have routes which bend around two villages; in Toronto they go over brownfield sites.

■ – noted that there was a suggestion to go over water – which is generally a winner.

Points raised regarding Feedback Theme of Technology

■ – presented an introduction of the feedback provided on the theme of Technology, as outlined on the PowerPoint. He noted as part of this overview that new technology could reduce the need for Class D airspace and enable maximum access for general aviation. He also noted that ADS-B came a up a lot in previous discussions – which he explained is a type of signal that aircraft can transmit. He said, however, that one of the problems is that, from an ATC perspective, it is currently invisible as technology in control towers is different. He clarified that there are plans afoot to integrate technology, but they have different dates to assess these. He observed that for aircraft owners, ADS-B is normally lighter and cheaper.

■ – queried whether FLARM had been considered.

■ – noted that FLARM is non-proprietary and can be switched off at will and therefore not be necessarily advantageous.

■ – suggested that FLARM should be considered and should be introduced.

■ – stated that it was a non-starter with the CAA.

■ – was cross that JH did not seem to want to record feedback related to FLARM. He suggested that the presentation summary of Technology feedback on the slide did not refer to FLARM – he requested that FLARM is definitely recorded as his preference in the feedback. *This has been recorded in this feedback report.*

■ – reminded a representative of Bath, Wiltshire, and North Dorset Gliding Club that the minutes of this meeting will be submitted to the CAA, but that he saw no value in including it in the feedback summaries on the presentation slide because the attitude of the CAA meant that FLARM will not be put forward as enabling ATC surveillance technology by an airport sponsor.

■ – wondered aloud what else Trax might be ignoring then. He suggested that there was a question of what else was being omitted, as ■ had the potential to ignore things that are important to the people in this room.

■ – stated that feedback was not being deliberately omitted, but that he did not see value in highlighting something around which a principle would not be further developed – and reminded a representative of Bath, Wiltshire, and North Dorset Gliding Club that the reason for this is that FLARM is a non-starter with the CAA in terms of ATC surveillance.

■ – pointed out that there was a question of who would pay for the kit to deliver electronic conspicuity then.

■ – argued that if there will be a requirement for ADS-B then airports should be paying for it for GA.

■ – indicated that if we get into the realm of ‘who pays’ for equipment then you get into difficult territory.

■ – said that they are losing their business because of a loss of airspace to Farnborough Airport.

■ – argued that for a generic airspace change proposal the use of technology to reduce Class D airspace is desirable, but specifically in relation to SOU's ACP the PBN SIDs and STARS which will have specific airspace requirements. This airspace is usually Class D – although that's a difficult thing to agree. If you have PBN RNAV1 routes in first instance you are required to put in class D airspace except in certain circumstances – though the CAA might grant an exception.

■ – noted that Class D airspace was the default for controlled airspace.

■ – stated that there was no formal default, though it had been assumed in the past. He added that there are no regulations to say which Class of airspace to use.

■ – noted that this meant that it was the default in practice. He added that the initial focus for this ACP was first published it referred to talk about separation – and he believes this refers to Class D.

■ – requested clarification from NATS.

■ – stated that it was a CAA decision and case-by-case.

■ interjected that from his recent conversation with the CAA they appear to be changing their stance and moving towards Class E. He said that one of CAA's principles is to remove controlled airspace as much as possible and mitigate it.

■ – asked if this related specifically to RNAV1.

■ – said that he could not guarantee this – but that he could not count out that for RNAV1 you need Class D.

■ – said that this was not clear.

■ – asked if there was a policy document for this.

■ – stated that there was not yet, and provided additional clarification.

■ – thanked ■ for this clarification.

■ – returned to the presentation, and highlighted community concerns regarding security, as noted earlier in the workshop.

■ – highlighted that GPS technology was not new, but noted that there had previously been issues relating to GPS failure and tampering.

Points raised regarding Feedback Theme of Resilience

■ – introduced the feedback relating to resilience as outlined on the PowerPoint. He noted that there are concerns about resilience against adverse weather conditions, saying that it doesn't matter how clever your routes are, if there are bad storms, the aircraft will not fly those routes. Thus you need to investigate ways to make routes resilient to weather.

■ – noted that there was a desire for resilience not to be prioritised over safety in the feedback.

■ – noted the need to consider both present and future policy while considering this feedback.

■ – He noted the importance of airspace infringements and noted the existence of mechanisms for taking action against infringement. He noted that SOU received a large number of infringements due to the complexity of its airspace.

■ – noted the importance of considering expansions in controlled airspace elsewhere, and the constraints this could place on GA.

Points raised regarding Feedback Theme of Integration

■ – introduced the feedback relating to resilience as outlined on the PowerPoint. He highlighted here that attendees previously noted that SOU and BOH are very close together.

■ – highlighted that from a community and airspace perspective concerns were raised that air-grabbing by other airports would mean there is not enough for others. If SOU were to grow, for example, it might restrict general aviation.

■ – highlighted that you don't necessarily need multiple routes for respite, as you could just restrict their use during times of day to share this. He stated that a concern was raised about separating aircraft – some people said keep planes apart with as much controlled airspace as possible – not to say that we are having as principle.

Points raised regarding Draft Design Principles

■ – began the session on the Draft Design Principles by explaining that these are the general principles – overall principles – that Trax will seek to achieve through the airspace design. He noted that they are not the be all and end all, and that some of them can contradict.

■ – then outlined the Air Navigation Guidance and Noise Policy Statement for England. He noted that airspace sponsor must meet these as part of the ACP, regardless of principles.

■ – argued that there is very little to suggest that plans must be implemented with FASI – and specifically with BOH's plans – which is our neighbour; and as such where most of the cross-over work will need to be.

■ – argued that the CAA would consider the extent to which all ACPs had accounted for each other. He mentioned that Trax and SOU had spoken to BOH and that we know we need to take account of BOH, noting that with all airports we need to show that we have taken account of all surrounding airfields and airports.

■ – observed on this point that the aviation industry has been asking whether airports with airspace dependencies on each other can go through Stage 2 separately, or whether they can only process together, and that this question has not yet been answered by the CAA.

■ – requested that this lack of certainty be reflected in the design principles

■ – confirmed that this broad point can be reflect in your feedback, but he questioned whether it is a design principle as such.

■ suggested that it should be a principle and written down as things which are a “given” generally get forgotten.

■ – referred back to the earlier conversation regarding co-operation between airports and suggested that SOU consider “in combination effects” as part of their design principles when assessing impact – and that BOH should be considered in this regard.

■ – added that this should be a “must” – that SOU “must” consider these in combination effects.

■ – suggested that it could be added to the mandatory list.

■ – noted that this was a good suggestion for the principles as well and noted it down.

■ – raised a question about whether other, e.g. MOD, airports would be included.

■ stated underpinning this whole process is that we need to show that it is safe and feasible to implement this ACP, explaining that SOU would have to demonstrate that the effects, including cumulative effects.

■ – noted that the MOD are a statutory consultee for all ACPs.

■ suggested the principle “shall take into account the effects of all neighbouring airports and ___”.

■ – interrupted him and suggested that all military aircraft need to be included here.

■ – then said that in a worst-case scenario a military jet has to escort aircraft, noting that they need access and you may not know where they are coming from.

■ – cited the example recently of two tornadoes just turning up and advised that at this stage the group not focus on this granular detail but focus on general principles.

■ – then noted that the other issue to consider with the military are those areas of RAF airspace which are not currently in use or not used often.

■ – noted that the MOD had a great deal of influence over airspace – describing them as a significant stakeholder and that he was confident that MOD operations were covered in SOU's ACP.

■ – noted the planning term “duty to cooperate” could be the best language to use in a potential principle on how the airports' combined changes affect noise.

■ – noted that the problem with CAP1616 was that it deals with airports in the singular but there is a need to take into account cumulative effects. He clarified that while the CAA oblige airports to consider cumulative effects but they do not assess airports in that way.

■ – noted that there is no lower airspace strategy against which this had been designed, and that such a strategy would be highly beneficial and should therefore be a prerequisite for how these would be designed. We need a lower-airspace strategy.

■ – noted the previous contribution from ■ regarding a lower airspace strategy. He made a note that there may be a need for a UK lower airspace strategy but noted that this was not SOU's role and that it would not be a design principle.

■ agreed, stating that it was a CAA responsibility. He noted that redesigning airspace required a lower airspace strategy. ■ queried whether, if a lower airspace strategy did exist, ■ could provide this. ■ agreed to do this.

■ – add, furthermore, that the CAA need to produce this lower-airspace strategy and that one of the reasons for this major redesign is that lower airspace has developed as a patchwork quilt.

■ – asked whether SOU would be brave and change “should” and “minimise” in environmental principles to “will” and “negate”, to ensure that there will be no total environmental impact.

■ – pointed out that he agreed, and that the wording of “minimise” indicated that the ACP would cause a net increase.

■ – added that the principles need to refer to zero impact on the environment.

■ – argued that there should be incentives in the principles to ensure that airlines have no net increases in noise and emissions.

■ – noted that TAG Farnborough is carbon-neutral as of 2018 due to its massive offsetting programme, noting that invest in LEDs, solar panels, tree planting across Hampshire. She asked whether SOU does any carbon offsetting and indicated that this is something that they will be looking at in its applications.

■ – added that “should” and “minimise” are woolly words and that you need to be more aspirational in the principles.

■ – stated that any carbon neutrality commitment would relate to the airport as a whole, not the ACP.

■ – stated that SOU should be more aspirational in its approach and should take a serious view of carbon neutrality.

■ – argued that the biggest issue which needs strengthening in the principles is that regarding environment and air quality.

■ – added that the final draft principle regarding noise and operating hours must not change, noting that SOU had never requested an extension of its operating hours; that its masterplan did not include this; and that this would not be approved by the local community and authorities anyway, regardless of any design principles included. He stated that this was extremely key to the local community’s acceptance of the airport.

■ – confirmed that this had been highlighted by the previous group, but that it is a planning issue, rather than a planning issue.

■ – argued that, on safety, “should avoid bottlenecks” should read “must”.

■ queried whether use of “must” is too much of a solution rather than a principle.

■ stated that “must” was acceptable within a principle.

■ – suggested that you could remove “must”, “shall”, and “should” from all draft design principle statements.

■ – also stated that a principle should include a reduction in controlled airspace, not simply that SOU should avoid expanding its controlled airspace. She also asked whether the noise principle relating to sharing of the burden related to the expansion of route numbers, or whether this related to sharing with existing routes.

■ – noted that communities in general were keen for burden to be shared, and explained that the principle instead related to the sharing of burden within routes which are developed.

■ – stated that he was surprised to hear that local communities supported burden-sharing and queried how this conclusion had been reached. He asked whether SOU had done a consultation to find out whether people wanted to share noise.

■ – indicated that SOU have undertaken a public focus group in addition to these workshops which found that while noise is not terribly important for them in general, it does matter when it is over them.

■ – added that in many ACPs we are finding that people say it is not fair to concentrate. He asked ■ whether he takes a different view, adding that Air Navigation Guidance obliged SOU to consider multiple routes.

■ – noted that as far as SOU is concerned, most of the people concerned came to live there knowing there was an airport, whereas most people not currently affected came to live there because there was

no noise. He argued that what Trax say regarding sharing noise is controversial and that SOU should avoid making assumptions.

■ – asked whether, as a group, they feel strongly about noise sharing and/or a fair and equitable share of traffic.

■ – raised what he called a related point regarding technology to facilitate aircraft climb gradients. He noted that while this would deliver continuous ascents, rather than stepped ascents, this would change the pitch of noise.

■ – added that continuous climb would produce less noise on the whole, and that would allow planes to climb higher, faster. However, he explained, if planes climbed faster, sooner, it can increase noise closer to the airport, to the benefit of those farther away from the airport.

■ – observed that this would lead to more noise near where he lives. He then queried whether more aircraft would mean more noise, and whether SOU would also be required to demonstrate mitigation for newly impacted individuals too.

■ – provided an explanation of the policy relating to this. ■ noted that sponsors were not able to increase the effect on those already deemed “significantly affected”.

■ – repeated that if planes use a steeper climb, he will be more significantly affected.

■ – suggested that it may be better for the principles to refer to continuous climb and descent.

■ – argued that all of the points behind this ACP should be underpinned by an approach that it is data-based and evidence-based, and argued that all data is published, and that all methodologies should be rigorous with scientific methodologies which are helpful and clear to communities. He suggested an overarching principle for the whole ACP that the process should be data-based, evidence-based, with publicly available data, and using scientific methodologies. He added that all methodologies need to be scientific – for example, on safety, there need to be profiles.

■ – argued that this data should also be made public as early as possible.

■ – noted the drawback of the CAP1616 process was that we have to engage and develop options before options had been assessed.

■ – stated that evidence should come first.

■ – agreed, stating that options were being developed before evidence and that this was the wrong way round.

■ – repeated that data needs to come first.

■ – agreed that Trax are making assumptions as you go through this.

■ – stated that this was the CAP1616 policy to develop design principles before any design or analysis is performed.

■ – added that you cannot put together options before you do the analysis.

■ – asked whether, when Trax produce options, these will be based on assumptions. Or will you declare these.

■ – stated that Trax will design a comprehensive list of options to address as many principles as possible.

■ – stated that this is why rigorous research must be a principle.

■ – explained that options would all necessarily be supported by evidence and will be considered against quantitative and qualitative tests with methodology agreed with the CAA and published online. He noted that the environmental team at SOU will have to produce data and methodology.

■ – clarified that SOU will not produce full analyses of every single option, this will be done when we have a shortlist – it would be impractical to do so before a shortlist. She added that all shortlisted options would be environmentally assessed, and that environmental consultants had already been instructed for this ACP.

■ – stated that it nonetheless needs to be published, so that stakeholders could see how conclusions had been reached.

■ – confirmed that this would be the case since everything submitted to the CAA was made public on the portal. He added that Trax will come back to this group with all options developed to ask for feedback ahead of analysis.

■ – suggested that the method should be to gather data on all GA movements and say, as a result of this assessment, these are the options. All 6 fields lend themselves to a scientific analysis not a matter of judgement. He stressed that without access to the data, stakeholders would be unable to provide comment. He stated that options should be supported by hard data, not by judgement, and that this was what he was encouraging.

■ – confirmed that all data and methodology would indeed be published on the CAA Portal.

■ – interjected that what we're talking about here is the baseline of data on which all analysis and comments can be hung. He stated that there was a lack of analysis at the current stage and so it is a fairly pointless process.

■ – provided clarification of the CAP1616 process, outlining that the current stage was 1B – which is a discussion of ideas and that Stage 2 is about the development of ideas, and that evidence would be produced and provided later in the process. He explained his role in the process, including meeting with Southampton and Bournemouth stakeholders. He noted that 1B was far from the final stage of the process, and that members of the public would be consulted within stage 3. ■ stated his belief that attendees had been requesting for the baseline to be developed earlier in the process and stated SOU's position that the baseline was required at a certain stage in the process.

■ – added that the process of articulation is at Stage 2A and Stage 2B.

■ – noted ■'s use of the word "consultation", and gave an example of where consultation had not been properly done. She asked when we pass the point where something is positive – and wanted to know that our feedback will be taken into account. He did not want design principles to be viewed as the final word here.

■ – noted that the CAA had failed two airports for not consulting sufficiently and noted that the old process – called CAP725 was less clear and transparent as it did not show all the meetings we've held.

■ – noted that when SOU do consult we will consulting on a range of options – we will show you our preference and how we have assessed them.

■ – noted that all engagement is logged, and pointed out the engagement facilitators taking notes.

■ – noted that if stakeholders are faced with a premise, they disagree with they should challenge them. CAA need to know if they are challenging them.

■ – noted that in that case SOU would need to say whether or not a proposed principle had been included and would need to justify if it had been rejected.

■ – queried the meaning of “greater access” in the draft principles on airspace. She asked whether this line needs to be more specific about who greater access is being granted to.

■ – clarified that this related to access to controlled airspace for GA.

■ – queried whether drones would be included.

■ – confirmed that this would probably be the case.

■ – stated her belief that drones were a threat and queried how this would be dealt with. She stated her concern with the statement and suggested that it was too broad.

■ – stated his belief that this relates to general aviation, but that he was unsure whether this included drones.

■ – summarised the feedback he had taken from the session as being the following:

- all methodology and data should be made public;
- assessments to be evidence based;
- stakeholders want to see methodology and data used;
- baselines should be made clearer earlier in the process than CAP1616 mandates;
- SOU should take into account in “in combination effects”, and with BOH and the MOD in particular;
- There needs to be a Lower Airspace Strategy;
- SOU should be more ambitious on the environment principles: should not ‘minimise’ but deliver no net impact;
- There should be no removal of night flight restrictions, but that there doesn't need to be a design principle on this;
- Remove all “shoulds” and “shalls” from design principles;
- Looking to reduce bottlenecks rather than avoid introducing additional ones;
- Define in airspace who greater access applies to;

■ – then read out the amendments to the design principles proposed by the group at the first Follow-Up Workshop on 19th July.

■ – closed the workshop, noting that all principles and notes would be brought together and made available by the end of August.

- – outlined the ways in which attendees could provide feedback.
- – requested that all attendees to be notified when the runway extension DCO was submitted.
- – noted that the process would be as standard for the application.
- – stated that attendees would indeed be notified when the DCO was submitted, and stated for clarity that this was separate from the ACP.

The agreed amendments to design principles based on this workshop were as follows:

Amended Principles:

- Additional: SOU's airspace options to take into account in combination effects of neighbouring airports.
- Env – ensure the airspace change has no net degradation in environmental performance.
- Delete night flight restrictions
- ALL principles remove shalls and should.
- Safety 2 – avoid introducing additional complexity and reduce bottlenecks in both the network and vlass g airspace.
- Airspace – should not increase the overall volume of controlled airspace. Where an increase is required, it should be accompanied by measures that offer greater access to general aviation and not increase segregation.

Glossary

| | |
|-----------------------|--|
| <u>ACP</u> | Airspace Change Proposal / Process |
| <u>AGS</u> | AGS Airports Ltd |
| <u>ANSP</u> | Air Navigation Service Provider |
| <u>ATC</u> | Air Traffic Controller |
| <u>ATM</u> | Air Traffic Management |
| <u>ATZ</u> | Aerodrome Traffic Zone |
| <u>BOH</u> | Bournemouth Airport |
| <u>CA</u> | Civil Aviation |
| <u>CAA</u> | Civil Aviation Authority |
| <u>CTA</u> | Control Areas |
| <u>DME</u> | Distance Measuring Equipment |
| <u>EC</u> | Electronic Conspicuity |
| <u>GA</u> | General Aviation |
| <u>GBAS</u> | Ground Based Augmentation System |
| <u>GBN</u> | Ground Based Navigation |
| <u>GNSS</u> | Global Navigation Satellite System |
| <u>GPS</u> | Global Position System |
| <u>ILS/MLS</u> | Instrument/Microwave Landing System |
| <u>IOW</u> | Isle of Wight |
| <u>IRT</u> | Instrument Range Testing/Test(s) |
| <u>LARS</u> | Lower Airspace Radar Service |
| <u>MATZ</u> | Military Aerodrome Traffic Zone |
| <u>NATS</u> | National Air Traffic Services |
| <u>NAVAIDs</u> | Ground-based navigational aids |
| <u>NDB</u> | Non-Directional Beacon |
| <u>PBN</u> | Performance-based navigation |
| <u>SON</u> | Statement of Need |
| <u>SOU</u> | Southampton Airport |
| <u>UHF</u> | Ultra-High Frequency |
| <u>VFR/IFR</u> | Visual Flight Rules/Instrument Flight Rules |
| <u>VOR</u> | VHF (Very High Frequency) Omni-Directional Range (VOR) |

Follow-up Workshop Feedback Form

Creating airspace design principles that will guide the development of Southampton Airport's airspace change proposal. (Stage 1B)



Stakeholder Details

Thank you for taking the time to take part in Southampton Airport's engagement process, regarding the development of our airspace change proposal.

The following pages have been designed to capture stakeholder feedback in response to Southampton Airport's stage 1b draft design principle statements.

You can either leave the feedback in the ballot box after today's workshop or, alternatively, you could return the feedback to BECG using the stamped and addressed envelope provided. You will also receive a copy of this feedback form via email which you can return electronically if you would prefer. Please return all feedback by: **Wednesday 7th August 2019.**

| | |
|---------------|------------------|
| Name | [REDACTED] |
| Title | AUTISM HAMPSHIRE |
| Organisation | [REDACTED] |
| Telephone | [REDACTED] |
| Email Address | [REDACTED] |

List of Draft Design Principles by Theme

| |
|---|
| Safety |
| Must be as safe or safer than today for both commercial air transport and General Aviation operations. |
| Should avoid introducing additional complexity and bottlenecks in both the network and Class G airspace. |
| Environmental |
| Should ensure the Airspace Change minimises the environmental impact. |
| Should ensure no degradation in existing Air Quality limits. |
| Should minimise total adverse ecological impacts. |
| Noise |
| Should minimise the total adverse impact of aircraft noise on communities. |
| Should offer a predictable, fair, and equitable share of traffic across the arrival and departure routes. |
| Should avoid overflying densely populated areas, national parks, AONBs, and other noise-sensitive areas, wherever possible. |
| Should not change current airport operating hours in the night period. |
| Technology |
| Should enable aircraft to climb higher sooner on departure and stay higher for longer on approach. |
| Should ensure the airspace structure, route network, and remaining navigation infrastructure minimises the likelihood of infringements. |
| Should consider the use of ADS-B to improve airspace integration where possible. |
| Airspace |
| Should not increase the overall volume of CAS. Where an increase is required it should be accompanied by measures that offer greater access and not increase segregation. |
| Should consider the impact on the efficiency and environmental performance of both GA and commercial operations. |
| Capacity and Resilience |
| Should ensure ATC capacity is sufficient to accommodate SOU's master plan forecasts whilst providing integration for GA traffic. |
| Should offer flexibility in the route structure to strengthen resilience against adverse weather and network issues that may affect operations. |

Do you have any additional comments on these proposed draft Design Principles?

I understand the key principles are priority in focus upon safety, environment etc. but as the community feedback has been in the impacts for the immediate population, could there be a key principle named 'community' which covers principles in:

- Should provide increased opportunities to disadvantaged and neurodiverse group in training, apprenticeship and securing employment.

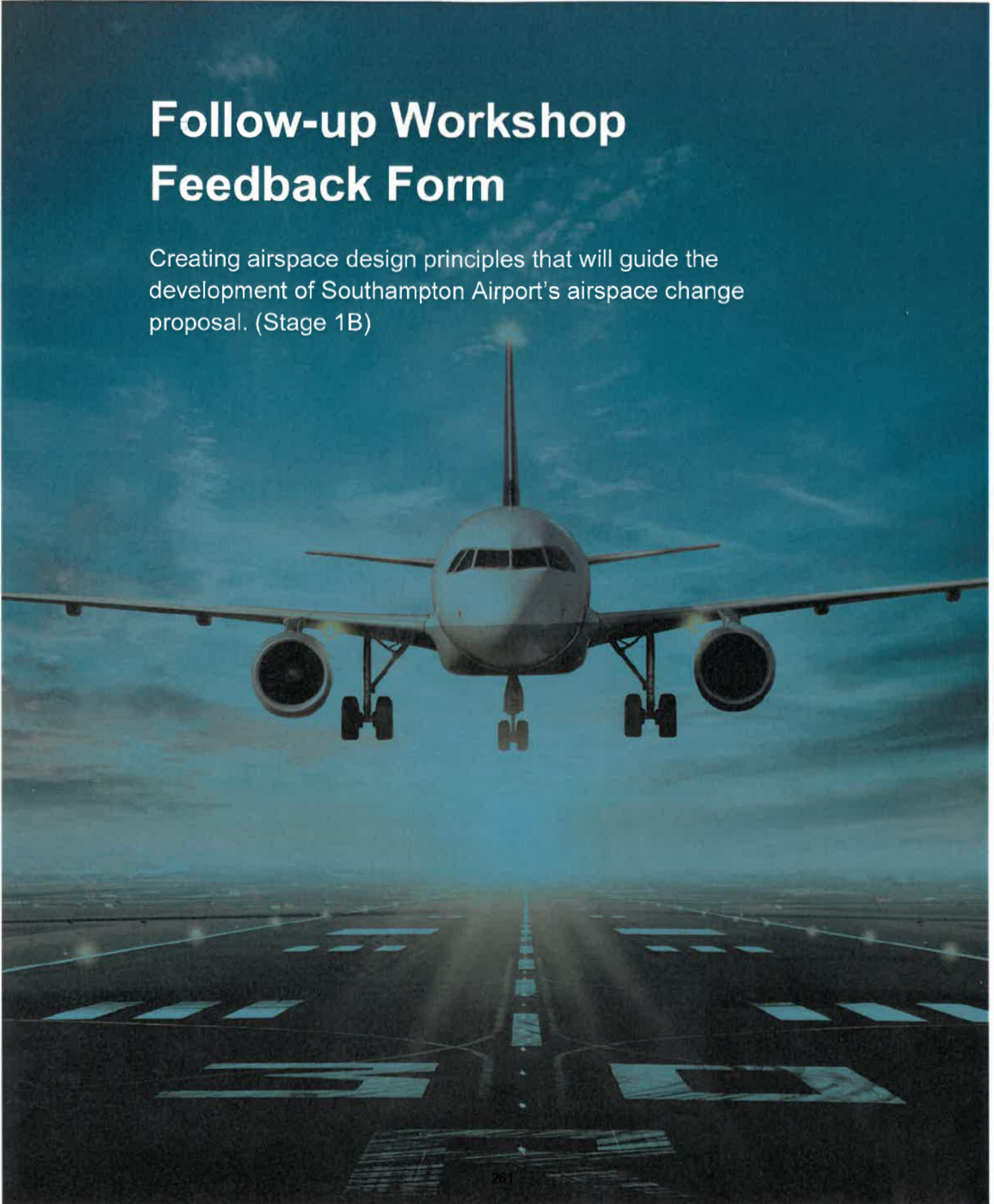
In terms of 'capacity' and 'integration'

this would support National and local strategies such as the autism plan in supporting pathways into employment for these groups.

(This may be part of such further down the line planning I appreciate)!

Follow-up Workshop Feedback Form

Creating airspace design principles that will guide the development of Southampton Airport's airspace change proposal. (Stage 1B)



Stakeholder Details

Thank you for taking the time to take part in Southampton Airport's engagement process, regarding the development of our airspace change proposal.

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| | |
|---------------|---|
| Name | [REDACTED] |
| Title | [REDACTED] |
| Organisation | Eastleigh BC + SOU Airport Consultative Committee |
| Telephone | [REDACTED] |
| Email Address | [REDACTED] |

List of Draft Design Principles by Theme

| |
|---|
| Safety |
| Must be as safe or safer than today for both commercial air transport and General Aviation operations. |
| Should avoid introducing additional complexity and bottlenecks in both the network and Class G airspace. |
| Environmental |
| Should ensure the Airspace Change minimises the environmental impact. |
| Should ensure no degradation in existing Air Quality limits. |
| Should minimise total adverse ecological impacts. |
| Noise |
| Should minimise the total adverse impact of aircraft noise on communities. |
| Should offer a predictable, fair, and equitable share of traffic across the arrival and departure routes. |
| Should avoid overflying densely populated areas, national parks, AONBs, and other noise-sensitive areas, wherever possible. |
| Should not change current airport operating hours in the night period. |
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| Should ensure the airspace structure, route network, and remaining navigation infrastructure minimises the likelihood of infringements. |
| Should consider the use of ADS-B to improve airspace integration where possible. |
| Airspace |
| Should not increase the overall volume of CAS. Where an increase is required it should be accompanied by measures that offer greater access and not increase segregation. |
| Should consider the impact on the efficiency and environmental performance of both GA and commercial operations. |
| Capacity and Resilience |
| Should ensure ATC capacity is sufficient to accommodate SOU's master plan forecasts whilst providing integration for GA traffic. |
| Should offer flexibility in the route structure to strengthen resilience against adverse weather and network issues that may affect operations. |

Do you have any additional comments on these proposed draft Design Principles?

1. Safety overrides all other Considerations.
2. The environmental aspects are the second most important factors to be considered,
3. There remains confused understanding about runway extension, larger planes, aircraft movement & capacity. Many of the routes will continue to be operated by the present Q400 78 seater aircraft. The longer runway will enable more European destinations using Airbus type aircraft & so create greater opportunities for EasyJet/Wizz/Ryanair to offer services
4. I often think the noise issue is overdone for smaller airports where service frequency is low - that said flying over densely populated areas is ~~as~~ best avoided if possible, so I have no disagreement with the noise themes.
5. Commercial considerations do need to be considered as part of airspace change.
6. Technology development may be a limiting or provider of greater opportunity for airspace change.

NEW FOREST NATIONAL PARK

From: [REDACTED]
Sent: 19 July 2019 14:26
To: #SOU Airspacechange <airspace.change@southamptonairport.com>
Subject: New Forest NPA feedback on airspace design principles

Following the workshop held today on creating airspace design principles to guide the development of Southampton Airport's airspace change proposal, please find below some additional feedback from the New Forest National Park Authority. This builds on the feedback already submitted by the National Park Authority (attached) dated 5 July 2019.

In summary, the Authority welcomes the recognition in the proposed principles on noise of the need to avoid overflying of National Parks wherever possible. Southampton Airport is possibly in the unique position nationally of having National Parks located within less than 10 miles of each end of the runway. As set out in our feedback dated 5 July 2019, the CAA has a legal 'duty of regard' to consider the two statutory National Park purposes originally established in the *National Parks & Access to the Countryside Act 1949* in making decisions that could affect National Parks. The CAA will be required to demonstrate how they have factored in this 'duty of regard' into their final decision on the Southampton Airport airspace change proposal and therefore the inclusion of a criterion relating to National Parks in the proposed principles is supported.

The Authority recognises that it will not be possible to totally avoid the overflying of the National Park, but the wording of the proposed principle reflects this. Paragraph 3.31 – 3.33 of the [UK Air Navigation Guidance 2017](#) states that, "...where practicable, it is desirable that airspace routes below 7,000 feet should seek to avoid flying over AONB and National Parks and the CAA should require this to be considered by sponsors when developing their proposals." We would highlight this guidance as being particularly relevant for the Southampton Airport airspace change proposals (given the close proximity of the New Forest and South Downs National Parks) and consider that the proposed principles discussed at the workshop earlier today under 'noise' reflect this national guidance.

Regards

Tel: [REDACTED]

Design principles for Southampton Airport's airspace change proposal

Thank you for inviting the New Forest National Park Authority to the above workshop held earlier this week. It provided a useful overview of the emerging proposals and the range of factors being considered.

In terms of additional feedback, as was highlighted at the workshop held on 1 July one of the particular features of Southampton Airport and its surrounding environs is the close proximity of two National Parks - the South Downs and the New Forest. The two statutory purposes of National Parks were originally established in the *National Parks & Access to the Countryside Act 1949* as:

- to conserve and enhance the natural beauty, wildlife and cultural heritage of the National Park; and
- promote opportunities for the understanding and enjoyment of the special qualities of the National Park by the public.

It is important to emphasise that these statutory National Park purposes are relevant for a wide range of relevant authorities, and not just the respective National Park Authorities. The Government

has produced further guidance on this 'duty of regard' which can be found [here](#). This duty of regard, "...recognises that a wide range of bodies have a direct influence over the future of these protected landscapes...It also acknowledges that the fulfilment of protected area purposes rests not only with those bodies directly responsible for their management but also relies on effective collaborative working." Relevant authorities are expected to be able to demonstrate that they have fulfilled the duty of regard. Where their decisions may affect National Parks, relevant bodies should be able to clearly show how they have considered the purposes of these areas in their decision making. The Annex to the guidance confirms that the Civil Aviation Authority are a 'relevant authority' bound by this duty of regard.

The New Forest National Park was designated in 2005. Linked to the second statutory Park purposes, the Authority has worked with the public and others to identify the 'special qualities' of the National Park. These are summarised [here](#) and identify the New Forest as a haven of tranquillity in the midst of the busy, built-up south of England. The relative tranquillity of large parts of the National Park has consistently been cited as one of the New Forest's most valued special qualities. The National Park Authority therefore has undertaken tranquillity mapping highlighting the areas of tranquillity within the Park and this is attached for your information. This does provide some coverage of impacts from Bournemouth and Southampton Airport.

In conclusion, the legal framework for National Park requires a wide range of relevant authorities to have regard to the two Park purposes in making decisions that could affect them. The tranquillity of the New Forest National Park is one of its special qualities and the Authority would urge very careful consideration to be given to airspace change proposals that could further increase the overflying of the National Park at low levels.

I hope this response is helpful and I would be happy to discuss matters with you further if that would be helpful.

Regards


Tel: 

NEW FOREST DISTRICT COUNCIL

Follow-up Workshop Feedback Form

Creating airspace design principles that will guide the development of Southampton Airport's airspace change proposal. (Stage 1B)

Stakeholder Details

Thank you for taking the time to take part in Southampton Airport's engagement process, regarding the development of our airspace change proposal.

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| | |
|---------------|-----------------------------|
| Name | [REDACTED] |
| Title | [REDACTED] |
| Organisation | New Forest District Council |
| Telephone | [REDACTED] |
| Email Address | [REDACTED] |

List of Draft Design Principles by Theme

| |
|---|
| Safety |
| Must be as safe or safer than today for both commercial air transport and General Aviation operations. |
| Should avoid introducing additional complexity and bottlenecks in both the network and Class G airspace. |
| Environmental |
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| Should minimise total adverse ecological impacts. |
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| Should minimise the total adverse impact of aircraft noise on communities. |
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| Should consider the use of ADS-B to improve airspace integration where possible. |
| Airspace |
| Should not increase the overall volume of CAS. Where an increase is required it should be accompanied by measures that offer greater access and not increase segregation. |
| Should consider the impact on the efficiency and environmental performance of both GA and commercial operations. |
| Capacity and Resilience |
| Should ensure ATC capacity is sufficient to accommodate SOU's master plan forecasts whilst providing integration for GA traffic. |
| Should offer flexibility in the route structure to strengthen resilience against adverse weather and network issues that may affect operations. |

Do you have any additional comments on these proposed draft Design Principles?

In addition to the Design Principles identified we consider the following should also be taken into account:

1. The 'in-combination' effects of the airspace change proposals on areas where the airspace is also affected by other airports. For example, airspace over the New Forest will be affected by a number of airports in southern England and effects of each airport's airspace use should not be considered in isolation.

2. Proposals should consider potential to 'off-set' environmental impacts. Consideration should be given to how the objectives and principles of the Governments 25 Year Environment Plan will be incorporated and influence proposals.

(Link:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/693158/25-year-environment-plan.pdf)



29/07/2019

ACP-2019-03 Southampton Airport FASI-South Airspace Change Proposal

Dear Southampton Airport,

Please note the following which is relevant to the airspace change proposal that you commenced by virtue of your DAP 1916 dated 15th January 2019.

Airspace change decisions and airspace modernisation

The Government's Air Navigation Directions require the CAA to make airspace change decisions in accordance with our strategy and plan. In December 2018 we published the Airspace Modernisation Strategy (AMS(CAP 1711)), that superseded and replaced the Future Airspace Strategy.

The CAA's Airspace Modernisation Strategy and the Masterplan that NERL has been commissioned (jointly by the CAA and the Department for Transport) to produce will affect your proposed airspace change and any decision on it.

The on-going Masterplan process has identified your airspace change proposal as strategically important for modernisation of the airspace within the area covered by the plan.

Design Principles

Stage 1B of the CAP 1616 process requires sponsors to develop Design Principles. Paragraph 108 states that the principles must "encompass the safety, environmental and operational criteria and the strategic policy objectives that the change sponsor seeks to achieve in developing the airspace change proposal" and must "take account of government policy." Paragraph 109 states that Design Principles must be "drawn up through discussion between the change sponsor and affected stakeholders at this early stage in the process" (with examples as to which local stakeholders may be relevant).

In developing your Design Principles, it is important that:

1. The impact of the AMS and the Masterplan work on your proposed change is included; and
2. Your stakeholders are made aware of the way in which the AMS is reflected in your Design Principles, and that this is of particular importance to your airspace change proposal.

Because of the CAA's AMS and the co-sponsored Masterplan work, the CAA is therefore advising you that it will expect to see the following concepts reflected and adopted in your Design Principles.

Subject to the overriding design principle of maintaining a high standard of safety, the highest priority principle of this airspace change that cannot be discounted is that it accords with the CAA's published Airspace Modernisation Strategy (CAP 1711) and any current or future plans associated with it.

Further explanation of the Co-ordinated Modernisation Design Principle and why it is important to your proposal

The CAA's AMS (CAP 1711) describes what airspace modernisation must deliver, drawn from relevant national and international policy and law. Paragraphs 3.5-3.7 set out factors that airspace modernisation must deliver, drawn from section 70 of the Transport Act 2000 and relevant policy, such as:

- the need to increase aviation capacity in the South East;
- for this growth to be sustainable; and
- for the need to make the best use of existing runways.

In addition, as set out in paragraph 1.25 and 3.1 of the CAA's AMS, the government's Airports National Policy Statement makes clear that capacity (accommodating additional runway capacity at Heathrow and making best possible use of existing infrastructure) is the context of airspace modernisation.

Given this policy context, the CAA and DfT, as co-sponsors of airspace modernisation, commissioned NERL to create a single coordinated implementation plan for airspace changes focussing initially on in Southern England (a south-east airspace change masterplan, or masterplan for short). Further detail on this masterplan is outlined in Chapter 6 of the CAA's AMS.

The masterplan is to build on work undertaken in NERL's feasibility assessment, described in paragraphs 5.18-5.20 of the AMS. In that feasibility assessment NERL identified that 15 airports (and their ANSPs) and NERL would need to co-ordinate in order that the extra capacity sought in the ANPS could be delivered. The ongoing Masterplan work has identified a total of 18, your airport is one of those.

It is expected that iterations of the Masterplan will be assessed by the CAA and the DfT and when applicable accepted into the AMS by the CAA as part of its statutory strategy and plan.

For these reasons we will expect to see that this airport participates in the development of that Masterplan in conjunction with ACOG, NERL and the other identified airports.

The CAA will expect to see a Design Principle related to this proposal (and ultimate requirement of the proposal itself) that this change will, as applicable, serve to further, and will not conflict with, the realisation of the AMS. It is noted that that this coordinated modernisation Design Principle may impact on your development of options.

Yours Sincerely,





Follow-up Workshop Feedback Form

Creating airspace design principles that will guide the development of Southampton Airport's airspace change proposal. (Stage 1B)



Stakeholder Details

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| | |
|---------------|------------|
| Name | [REDACTED] |
| Title | [REDACTED] |
| Organisation | HCC |
| Telephone | [REDACTED] |
| Email Address | [REDACTED] |

List of Draft Design Principles by Theme

| |
|---|
| Safety |
| Must be as safe or safer than today for both commercial air transport and General Aviation operations. |
| Should avoid introducing additional complexity and bottlenecks in both the network and Class G airspace. |
| Environmental |
| Should ensure the Airspace Change minimises the environmental impact. |
| Should ensure no degradation in existing Air Quality limits. |
| Should minimise total adverse ecological impacts. * |
| Noise |
| Should minimise the total adverse impact of aircraft noise on communities. |
| Should offer a predictable, fair, and equitable share of traffic across the arrival and departure routes. |
| Should avoid overflying densely populated areas, national parks, AONBs, and other noise-sensitive areas, wherever possible. |
| Should not change current airport operating hours in the night period. |
| Technology |
| Should enable aircraft to climb higher sooner on departure and stay higher for longer on approach. |
| Should ensure the airspace structure, route network, and remaining navigation infrastructure minimises the likelihood of infringements. |
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| Should offer flexibility in the route structure to strengthen resilience against adverse weather and network issues that may affect operations. |

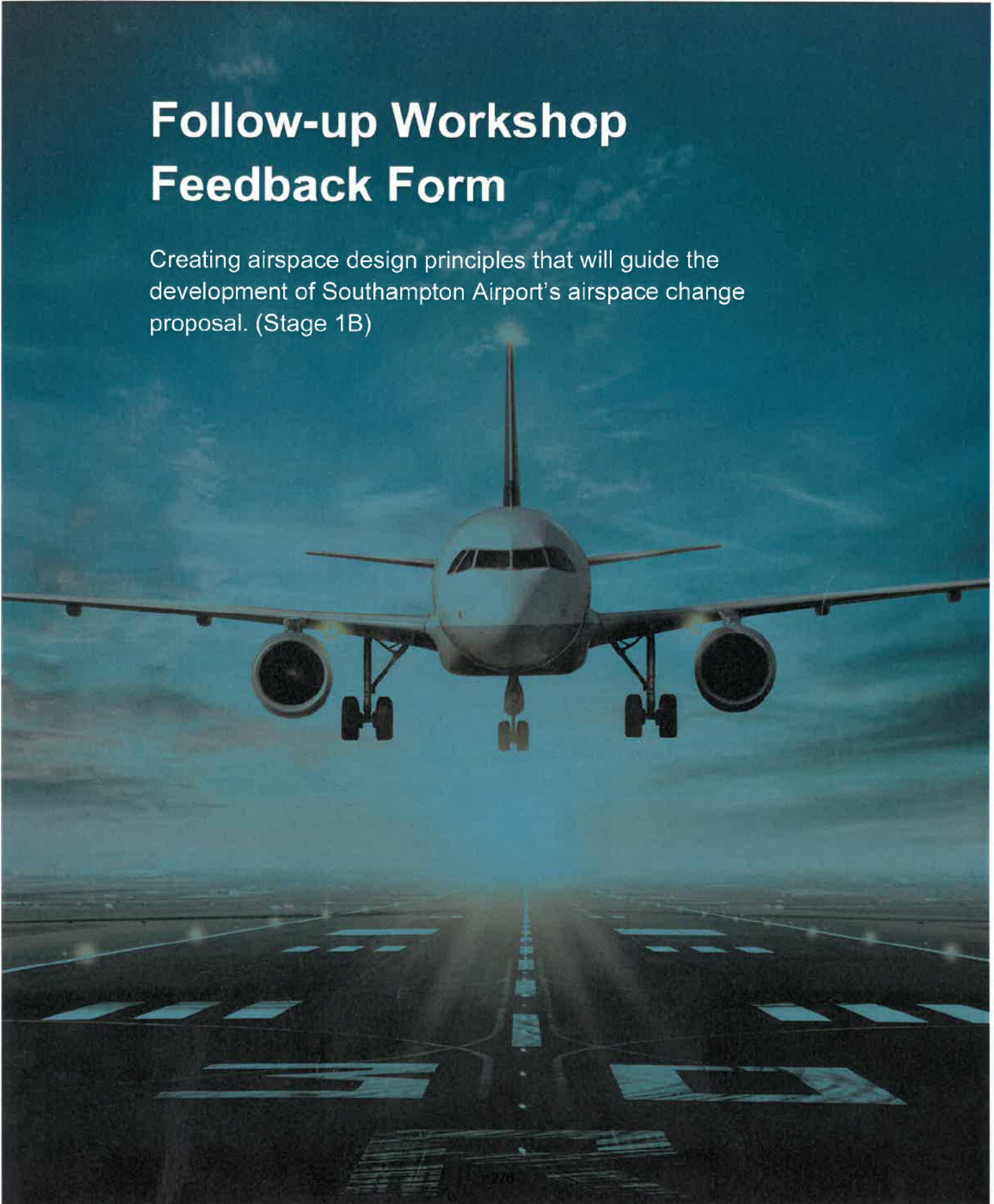
Must

* Can you please include a target to Carbon Neutrality -
I appreciate this will include a serious offsetting
programme as TAG Farbrugg have done.

May Hark

Follow-up Workshop Feedback Form

Creating airspace design principles that will guide the development of Southampton Airport's airspace change proposal. (Stage 1B)



Stakeholder Details

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| | |
|---------------|---------------|
| Name | [REDACTED] |
| Title | [REDACTED] |
| Organisation | WINCHESTER CC |
| Telephone | [REDACTED] |
| Email Address | [REDACTED] |

List of Draft Design Principles by Theme

| |
|---|
| Safety |
| Must be as safe or safer than today for both commercial air transport and General Aviation operations. |
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| Should not change current airport operating hours in the night period. |
| Technology |
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| Should ensure the airspace structure, route network, and remaining navigation infrastructure minimises the likelihood of infringements. |
| Should consider the use of ADS-B to improve airspace integration where possible. |
| Airspace |
| Should not increase the overall volume of CAS. Where an increase is required it should be accompanied by measures that offer greater access and not increase segregation. |
| Should consider the impact on the efficiency and environmental performance of both GA and commercial operations. |
| Capacity and Resilience |
| Should ensure ATC capacity is sufficient to accommodate SOU's master plan forecasts whilst providing integration for GA traffic. |
| Should offer flexibility in the route structure to strengthen resilience against adverse weather and network issues that may affect operations. |

Do you have any additional comments on these proposed draft Design Principles?

1. The one thing that seems to be missing from this process is the redesign of use of 'non controlled airspace' i.e. the use of airspace for general aviation (light aircraft, gliders etc) and unpowered e.g. drones. How can one be considered without the other?!

I gather that there are an enormous no of private pilots / light aircraft in the UK and we should also design the sky travel routes to enable them to continue to enjoy flying for pleasure / carrying out their business e.g. RAF. If this is designed well too they are less likely to infringe controlled airspace.

However, we does have to question why Southampton has such a high level of infringements too? Should the whole industry be reviewed such that we maintain high standards for general aviation traffic too? e.g. reviewing: -

1. Provision of airspace
2. Training of pilots!
3. The regulation / enforcement regime for infringements.
4. Improving systems of detection

2. Please could we have a glossary of acronyms.

From: [REDACTED]
Sent: 31 July 2019 12:34
To: #SOU Airspacechange <airspace.change@southamptonairport.com>
Cc: [REDACTED]
Subject: Re: Follow-up Workshop reports on Southampton Airport's Proposed Design Principles, held on 19th and 23rd July

Thank you for notes of the second workshops on airspace change. The significant issue is setting design principles; I note the amendments set out at the end of the note.

Discussion showed participants considered insufficient emphasis was being placed on reducing, or at least preventing an increase, in overall impact from noise & on air quality. 'Climate change' has become a major political issue. Wording in the proposed principles 'minimise total adverse impacts' does not reflect that priority. The wording of the Environmental objective should recognise that it is concerned with air quality & set as an objective no net increase in emission of those gases harmful to the global atmosphere. Wording along the lines of 'securing climate neutrality' was suggested.

Noise will be a contentious issue. The wording of the principle should again unequivocally require no increase in overall noise -- but that's hard to quantify. The wording does not accept/recognise that the idea of spreading the impact of noise to areas presently lightly affected will be contentious -- the concept of 'equitable' sharing of noise & providing changing routes to give 'respite' should not be taken as reflecting local opinion.

The wording of the 3rd Noise principle needs reconsideration; as worded, it covers two possibly conflicting objectives. The first is 'avoid overflying densely populated residential areas'. Given the Airport's location, that is impossible to achieve. The final approach both north & south is over residential areas. (And does it repeat the intention of the 1st noise objective about impact of aircraft noise on communities?) SCAPPS & other amenity organisations will be concerned with the second intention, avoiding significant noise disturbance in areas of landscape importance which are enjoyed for their tranquility. The objective lists National Parks (New Forest & South Downs) AONBs & a catch-all of 'other noise sensitive areas'. I would suggest either a general description 'areas of landscape importance used for recreation' or adding to the list the coast & major parks & green spaces.

[REDACTED] Southampton Commons & Parks Protection Society

Southampton Airport

1. The DFT and the CAA are developing new regulatory airspace changes, a technical matter to safely promote the most efficient and effective way of managing the crowded airspace in the future.
2. The aviation industry is wishing and hoping and expecting to expand. There is increased demand from all types of aircraft user. Business and employment opportunities offer themselves to meet increasing demand.
3. Southampton airport caters at present for 2 million passengers and 40,000 aircraft movements annually. The projection for 2037 is 5 million and 60,000. Staff numbers would increase by half as much again.
4. A planning application is expected soon to extend the runway in the north by 170 metres. The extension would enable more distant destinations to be reached. For the future a tunnel under the runway is planned in order to enable the east of the airport to be developed for taxiing and parking aircraft and cars and for general purposes. See the current Airport Masterplan.
5. The prohibition on night flying 11pm to 6.30am will remain.

6. Objectors raise the following objections:

6.1.1. Air pollution. Aircraft pay no tax on fuel and no VAT.

6.1.2. The judges have said that Government must follow and enforce the Air Quality Strategy 2019.

6.2.1. Noise. The tranquillity of South Hampshire, especially Southampton and the area south of Winchester, is seriously disturbed, despite being AONBs, SSSIs, National Parks, New Forest, and indeed many urban open spaces and individual gardens. Farm animals are disturbed by aircraft noise.

6.2.2. The industry claims that newer aircraft will be bigger (fewer planes per 100 passengers), cleaner and quieter. There appear to be no compulsory powers in Government to insist on getting rid of old aircraft, of the toxic charge and insurance penalty and scrappage schemes for vehicles.

6.2.3. A very contentious aspect of the new flight paths is the proposed lengthening and “fanning out” of the flight paths. The assertion is that the sharing of noise pollution is fairer – “spread the pain”. The fallacy of the argument is that those suffering noise pollution came to it, as the airport has been there since pre-war, whereas those not suffering noise pollution chose to live where they live in order to avoid noise pollution. Should aircraft noise be concentrated or dispersed?

- 6.2.4. The steeper the climb the quicker the aircraft leaves less noise on the ground (and uses more fuel), but the steeper the climb the more concentrated the sound.
7. Infrastructure.
 - 7.1. The airport industry is curiously unaware or indifferent to the infrastructure impact of airports. The impact upon the highway network, the public transport service, the railways, the docks, and parking requirements cannot be ignored.
 - 7.2. Airports seem to be largely unregulated so far as expansion is concerned, and there appears to be no duty on airports to co-operate or to integrate with other airports. What is the relationship between Southampton and Bournemouth?
8. Noise, air pollution and the quality of the environment generally must continue to exercise the CPRE.

Report by [REDACTED] representing CPRE Hampshire at Holiday Inn Eastleigh July 2019 at meetings held by Built Environment Communication Group BECG acting on behalf of Southampton Airport.

Follow-up Workshop Feedback from Lasham Gliding Society

Creating airspace design principles that will guide the development of Southampton Airport's airspace change proposal. (Stage 1B)



Stakeholder Details

Thank you for taking the time to take part in Southampton Airport's engagement process, regarding the development of our airspace change proposal.

The following pages have been designed to capture stakeholder feedback in response to Southampton Airport's stage 1b draft design principle statements.

You can either leave the feedback in the ballot box after today's workshop or, alternatively, you could return the feedback to BECG using the stamped and addressed envelope provided. You will also receive a copy of this feedback form via email which you can return electronically if you would prefer. Please return all feedback by: **Wednesday 7th August 2019.**

| | |
|---------------|------------------------------|
| Name | ██████████ |
| Title | |
| Organisation | Lasham Gliding Society (LGS) |
| Telephone | |
| Email Address | ██████████ |

List of Draft Design Principles by Theme

| |
|---|
| Safety |
| Must be as safe or safer than today for both commercial air transport and General Aviation operations. |
| Should avoid introducing additional complexity and bottlenecks in both the network and Class G airspace. |
| Environmental |
| Should ensure the Airspace Change minimises the environmental impact. |
| Should ensure no degradation in existing Air Quality limits. |
| Should minimise total adverse ecological impacts. |
| Noise |
| Should minimise the total adverse impact of aircraft noise on communities. |
| Should offer a predictable, fair, and equitable share of traffic across the arrival and departure routes. |
| Should avoid overflying densely populated areas, national parks, AONBs, and other noise-sensitive areas, wherever possible. |
| Should not change current airport operating hours in the night period. |
| Technology |
| Should enable aircraft to climb higher sooner on departure and stay higher for longer on approach. |
| Should ensure the airspace structure, route network, and remaining navigation infrastructure minimises the likelihood of infringements. |
| Should consider the use of ADS-B to improve airspace integration where possible. |
| Airspace |
| Should not increase the overall volume of CAS. Where an increase is required it should be accompanied by measures that offer greater access and not increase segregation. |
| Should consider the impact on the efficiency and environmental performance of both GA and commercial operations. |
| Capacity and Resilience |
| Should ensure ATC capacity is sufficient to accommodate SOU's master plan forecasts whilst providing integration for GA traffic. |
| Should offer flexibility in the route structure to strengthen resilience against adverse weather and network issues that may affect operations. |

Do you have any additional comments on these proposed draft Design Principles?

The summary list above omits many points made during the two stakeholder sessions. Some wording is too vague; the word 'should' must be replaced by 'must' for all the Design Principles. Please refer to LGS's Feedback submitted after the first stakeholder meeting 27 June 2019 for our complete inputs.

Requested changes to the proposed Design Principles are shown in red below; Design Principles to be added to the list are shown in blue.

NEW CATEGORY: General:

- A Lower Airspace Strategy is required before a design can be undertaken.
- Individual FASI-S ACP designs must be coordinated, e.g. SOU with BOU, MoD and nearby airfields.
- Design shall be evidence-based and rigorous analysis methodologies shall be used to demonstrate compliance with all Design Principles. All data and methodologies used shall be published.
- The regulations and other factors requiring the ACP shall be clearly identified.

Safety:

- Safety for all airspace users must be improved not reduced. This must be demonstrated by evidence-based analysis.
- ~~'Must Should avoid introducing additional or exacerbating complexity and bottlenecks in both the network and Class G airspace and demonstrate by evidence-based analysis.'~~
- Cost of additional measures required by GA/gliding to mitigate any safety/operational issues (e.g. transponders) and financial impacts on aviation organisations must be borne by SOU.

Environmental:

- Must reduce environmental impacts by commercial and GA traffic.

Noise:

- ~~'Must Should minimise reduce~~ the total adverse impact of aircraft noise on communities'
 - Noise impact analysis shall include all traffic, including GA diverting around/under new controlled airspace.

Technology:

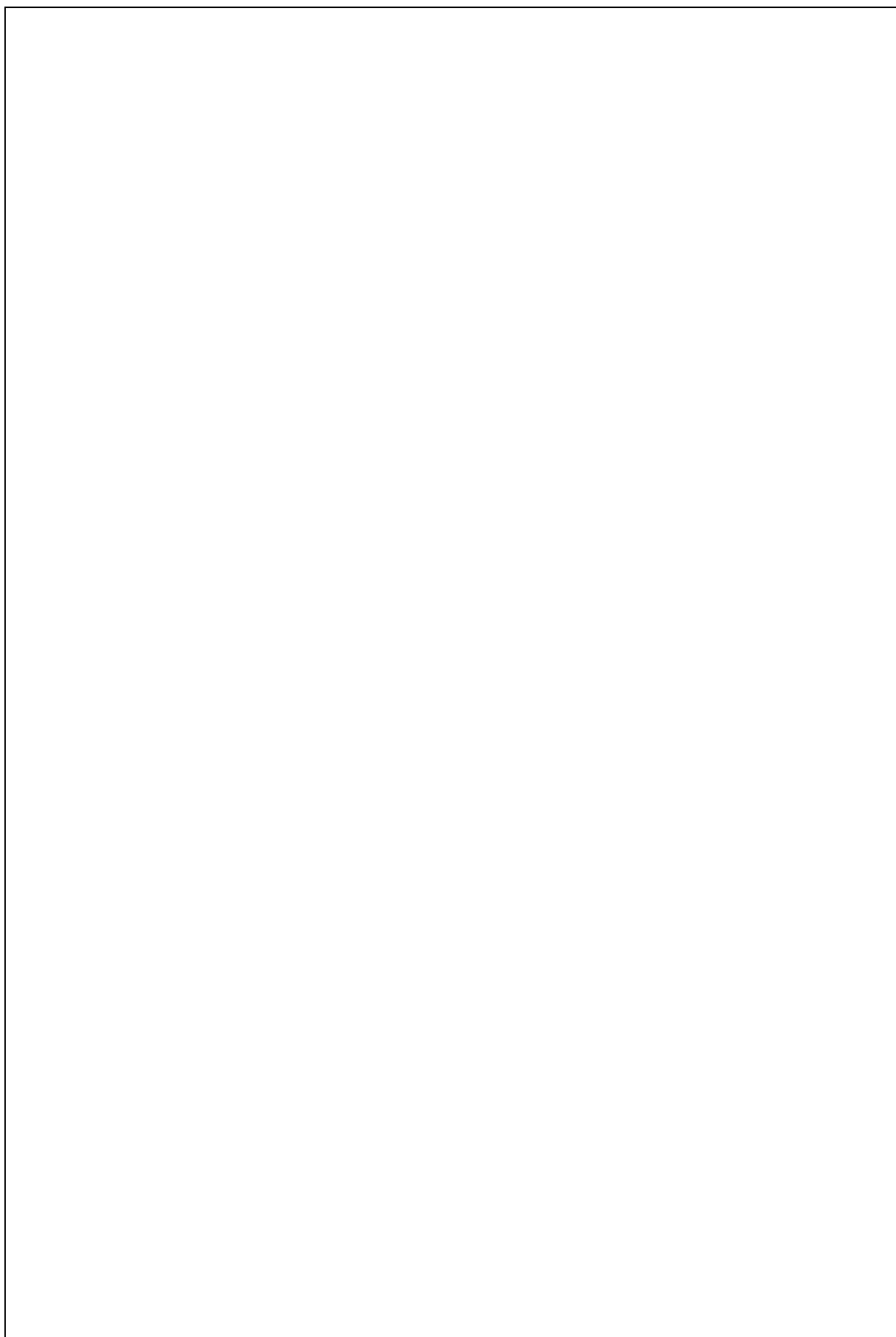
- ~~'Must Should consider use of ADS-B or other Electronic Conspicuity (EC) technologies to improve airspace integration where possible and allow lowest classification of airspace to be used (i.e. Class G+EC, Class E+EC in preference to Class D).'~~
- EC solutions required as part of the design shall be commercially-available prior to implementation.

Airspace:

- ~~Must Should consider~~ mitigate any negative impacts of the design on the efficiency, environmental, operational and economic performance of both GA and commercial operations.
- GA/gliding operational requirements to be explicitly taken into account and not restricted, with explanations.
- Design must employ the minimum controlled airspace.
- Default airspace classification shall be Class G.
- Design must meet current CAP1616 Efficiency criteria for all users.

Capacity and Resilience:

- ~~'Should offer flexibility in the route structure to strengthen resilience against adverse weather and network issues that may affect operations.'~~ Resilience against weather and network issues shall be accommodated without additional controlled airspace.'
- Capacity requirements shall be based on evidence-based and independently-validated ATM forecasts.



Follow-up Workshop Feedback Form

Creating airspace design principles that will guide the development of Southampton Airport's airspace change proposal. (Stage 1B)



Stakeholder Details

Thank you for taking the time to take part in Southampton Airport's engagement process, regarding the development of our airspace change proposal.

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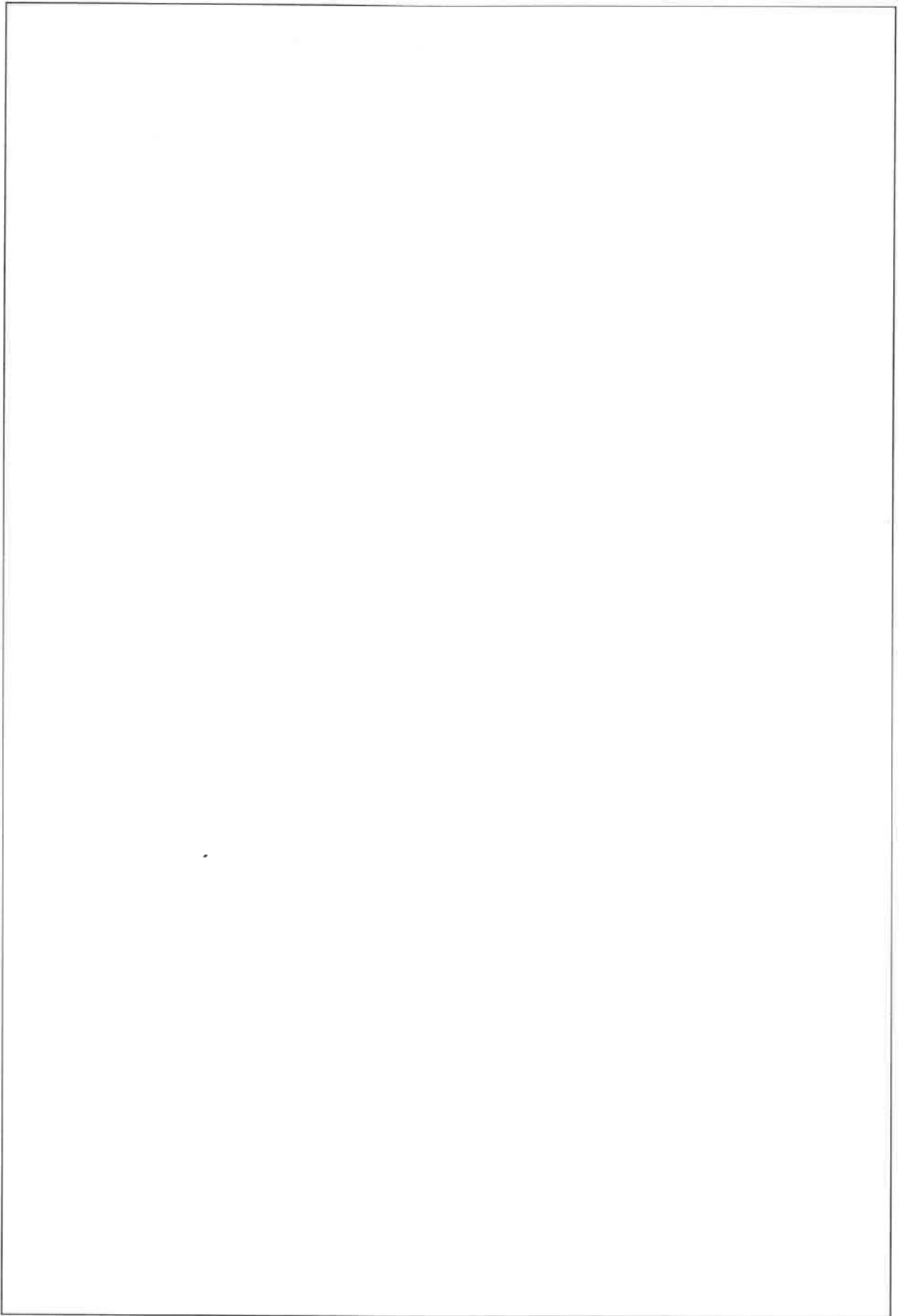
| | |
|---------------|-----------------------------|
| Name | [REDACTED] |
| Title | [REDACTED] |
| Organisation | Townhill Park Residents Ass |
| Telephone | [REDACTED] |
| Email Address | [REDACTED] |

List of Draft Design Principles by Theme

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| Should offer flexibility in the route structure to strengthen resilience against adverse weather and network issues that may affect operations. |

Do you have any additional comments on these proposed draft Design Principles?

NO



MINISTRY OF DEFENCE

From: [REDACTED]**Sent:** 06 August 2019 06:46**To:** #SOU Airspacechange <airspace.change@southamptonairport.com>**Subject:** RE: Reports on the ideas raised at the recent Follow-up Workshops on Southampton Airport's Design Principles, held on 19th and 23rd July

Good morning,

Thank you for the attached summary of recent workshops. The MOD would wish to highlight the following for consideration:

1. MOD has no specific comment in terms of any requirements to increase capacity however considers it is essential that access to CAS is provisioned for for all airspace users, noting the additional complexities and increased workload that increasing capacity may bring. Any increase in capacity should not come at cost to facilitating access to other airspace users. It is essential that the MOD is guaranteed an ATS and clearance to access and transit any portions of CAS to meet defence operational and training requirements.
2. The MOD would wish to ensure that any CAS required as part of this change should be minimised and, as above, there should be provision for other airspace users to transit portions of controlled airspace. SOU should also consider the impact changes to CAS may have on any adjacent uncontrolled airspace e.g. traffic funnelling, caused as a result of the change. It is important that all airspace users' needs and requirements are considered in any solution.
3. The MOD is favour of embracing new technologies and supports Electronic Conspicuity as a concept.
4. The MOD is supportive of flexible use of airspace as a concept.

Noting points 1 and 2 above, the MOD would wish to see a DP included that considers impact of change on other airspace users, ensuring that access to any portions of CAS is provisioned for in any change. The MOD seeks assurance that ATS and access to transit or operate in CAS, can be facilitated for MOD aircraft to meet military operational and training requirements

The MOD recognises the importance of Airspace Modernisation and remains committed to ensuring airspace is used safely, efficiently and flexibly. Airspace modernisation and future airspace design must consider and allow for MOD access to airspace in order to meet future defence requirements. The MOD values the opportunity for continued engagement with Southampton on this ACP.

Please do not hesitate to contact the undersigned if you require any further information.

Kind Regards

[REDACTED]

[REDACTED] | SO2 Airspace Plans | Defence Airspace and Air Traffic Management | CAA Aviation House | Gatwick, RH6 0YR | Civilian Telephone: [REDACTED]

[REDACTED] | MOD Net: [REDACTED]
Mail: [REDACTED]

E-

**COMPTON AND SHAWFORD
PARISH COUNCIL**

Stakeholder Details

Thank you for taking the time to take part in Southampton Airport's engagement process, regarding the development of our airspace change proposal.

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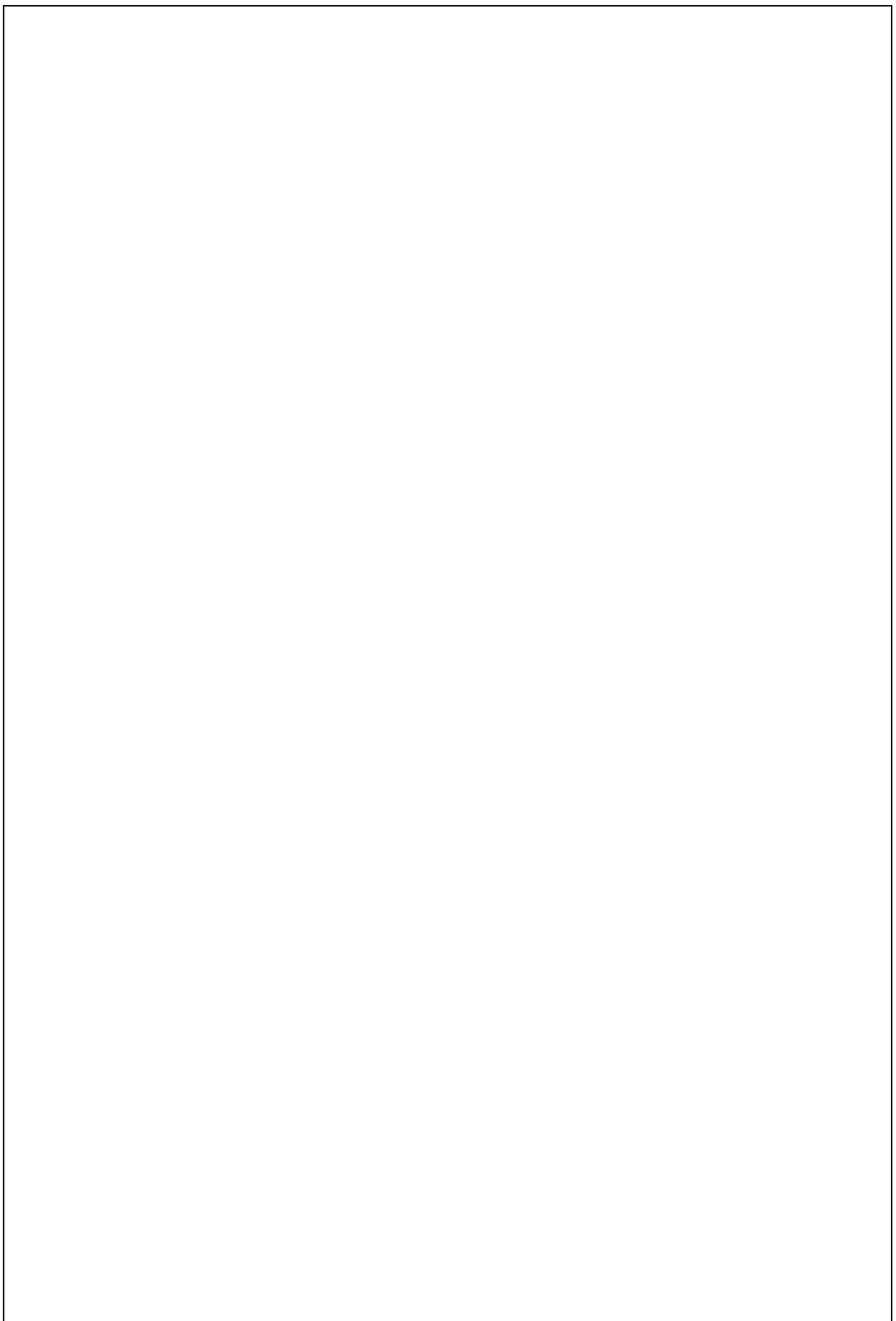
| | |
|---------------|-------------------------------------|
| Name | [REDACTED] |
| Title | [REDACTED] |
| Organisation | Compton and Shawford Parish Council |
| Telephone | [REDACTED] |
| Email Address | [REDACTED] |

List of Draft Design Principles by Theme

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Do you have any additional comments on these proposed draft Design Principles?

There seem to be competing interests in this process. It isn't clear how balanced these interests are when arrival at a set of principles. It is easier for an interest group (eg GA) to make their points as they have more technical knowledge than a lay person and they may be overrepresented in comparison to the public who bear the brunt of disturbance during their daily lives (GA being mostly a recreational group?). The "industry" may have economic drivers, so the balance may be money versus daily lives. Care is needed in resolving the tensions and making these balances.



becg

**built
environment
communications
group**

Development of design principles for
Southampton Airport's airspace change
proposal

Follow-Up Workshop 1

Version 2

Location: Holiday Inn Eastleigh, Leigh Rd,
Eastleigh, Hampshire, SO50 9PG

Friday 19th July 2019

becg.com

Document Overview

This document is an overview of a Follow-up Workshop held with a mix of Aviation, Local Government and Business, and Community and Interest stakeholders on Friday 19th July regarding the development of design principles for a change in Southampton Airport's airspace.

Please note that all conversation was summarised in the interests of transparency, although not everything stated by attendees was always applicable to Southampton Airport, the ACP or the Design Principles.

Workshop objectives

The objectives of the workshops were to:

- Increase awareness and understanding among participants about the need for airspace change and of the process for bringing it about.
- Offer clarification on points raised in feedback at the previous three design principles workshops on 27th June and 1st July.
- Provide a summary of the feedback received during the first three design principles workshops, from the feedback received in writing in response to these, and from the Focus Groups held.
- Explain the initial design principles statements that we have developed based on the feedback received so far.
- Gather feedback from stakeholders in response to these draft statements, with the aim of refining the design principles for submission to the CAA.

Attendees representing Southampton Airport

SOU attendees

- SOU attendee 1: provided a brief overview of the Southampton Airport Master Plan at the beginning of the presentation, to address a request for clarification made by stakeholders at the initial workshops. they latterly provided additional information to stakeholders' questions where necessary, both in response to the presentation and when matters arose that required SOU input during the design theme discussions.
- SOU attendee 2: observed the session and provided additional information in response to stakeholders' questions, where necessary.
- SOU attendee 3: observed the session and provided additional information in response to stakeholders' questions, where necessary.

Trax attendees

- Trax attendee 1: led the presentation throughout the workshop; walking stakeholders through the points of clarification which emerged from initial workshop feedback; summarising the feedback received in response to the first airspace design principles workshops; presenting the feedback from the focus groups, held in addition; providing a recap of the need for Airspace Modernisation; outlining the proposed design principles which had been formulated in response to all feedback received; and seeking feedback from stakeholders in response to these draft principles.
- Trax attendee 2: observed the workshop and provided additional information to stakeholders' questions, where necessary.

BECG attendees

- BECG attendee 1: facilitated the room discussion and ensured that all key objectives were met throughout the session.
- BECG attendee 2: minuted the feedback.
- BECG attendee 3: minuted the feedback.

List of Attendees

| <u>Organisation</u> |
|--|
| easyJet |
| Flybe |
| Western Air Thrupton |
| Independent Commission on Civil Aviation Noise (OBSERVER) |
| Airspace-4-All |
| Farnborough Airport |
| Bournemouth Airport |
| Gatwick Airport |
| Hampshire Constabulary |
| Twyford Parish Council |
| Winchester City Council |
| New Forest National Park Authority |
| Solent Local Enterprise Partnership |
| Townhill Park Residents Association |
| Eastleigh Borough Council |
| Compton and Shawford Parish Council |
| Airspace Change Organising Group (OBSERVER) |

Notes from the Workshop

Minutes of Previous Workshops

Each stakeholder present had received a copy of the external minutes of the initial design principles workshop relevant to their stakeholder type, whether they had personally attended or not. As such, Aviation stakeholders received the external report on the Aviation Workshop on 27th June; Community and Interest stakeholders received the external report on the Community and Interest Workshop on 1st July; and the Local Government and Business stakeholders received the external report on the Local Government and Business Workshop on 1st July.

A Trax representative gave the attendees present an opportunity to comment on the contents of the minutes. None of the stakeholders in attendance sought to offer comment.

Clarification Questions

A Trax representative provided clarification on EU 2018/1048 and spoke about its implications for what SOU is required to do. They noted that some people believed that the ACP was purely driven by this Implementing Rule, but that this was not the case. SOU's ACP instead relates to the modernisation of airspace as required by FASI-S.

A Trax representative noted that questions had been raised about safety assessments: they noted that CAP725 left stakeholder engagement to the end, while CAP1616 involves engagement from a much earlier stage, before principles have been developed, and that this enables stakeholders to see how proposals have been formulated. They outlined the different stages, and noted that Stage 2B would involve safety assessments, and that 3A and 4 would involve a much "deeper dive" into safety. They noted that the full safety case would be presented at the end, and that sign-off would be received from the safety regulator as late as a month before the changes go live, when all training has been completed.

A Trax representative spoke about the current issues faced by SOU from a pilot / ATC perspective, and spoke about the distinction between the ACP and the DCO, noting that this workshop was focused on the ACP. They noted that these processes were separated but related in the sense that both were influenced by capacity and aircraft types expected to use the airspace. They noted that questions had been raised about ground infrastructure and surface access, but that these were DCO / Master Plan issues, not related to the ACP.

A Flybe representative noted that the main issue faced by pilots approaching SOU from London is that they could not approach in a straight line, due to London's airspace. Any flight arriving from the North must overfly Winchester twice, simply to land. They noted that this issue was not present from the South, where straight line approaches were possible. They noted that this would ideally be the case for arrivals from the North, which would reduce noise, pollution, and track-miles.

A Trax representative clarified that this was only the case for runway 20, with the Flybe representative in agreement.

The Flybe representative reiterated that the ideal scenario for pilots and airlines would be straight entry in from the North to avoid double overflight of Winchester.

Master Plan Slides

An SOU representative gave a brief overview of SOU's high-level Master Plan. They noted that the Master Plan in full was available on SOU's website, but that they would introduce the relevant portions for the workshop. Regarding Air Transport Movements (ATMs), they stated that SOU is not at capacity. They explained that while SOU believe it is realistic to double passenger numbers by 2017, there is no plan to double the number of ATMs, due to increased efficiency and larger aircraft. From an airspace perspective, they noted that the that the key numbers are an increase from 39,300 movements per year to 57,800 movements per year by 2037.

They stated there is no plan to increase the airport's opening hours for flights, and that any development would be within the existing boundary fence. They also presented an overview of current and projected economic impact. They introduced the plans for future airport development in terms of terminal, runway, etc. presenting an artist's impression for how the airfield might look by 2037, highlighting the runway extension but stating that the airport had no current plans for the threshold (touchdown zone) to change, so this would not affect to profile of arrivals on final approach. They noted that taxiways were heavily dependent on traffic movements, demand, and willingness of Eastleigh Borough Council to grant planning permission. They noted the plans to increase the capacity for parking aircraft to the North, and moving existing general aviation hangers, fire station etc. to the South.

An Eastleigh Borough Council representative stated that the masterplan did not list larger planes, but that the Master Plan slides show larger planes. The SOU representative explained that there are no plans to introduce entirely new large aircraft, but that there are plans to alter the makeup of the fleet that lands at SOU; specifically, by increasing the frequency of larger aircraft. The Eastleigh Borough Council representative queried whether the planes proposed were the 737-800. The SOU representative stated that the most common aircraft at present was the Q400 but that there was a plan to increase the number of A320 and B737 aircraft.

An Eastleigh Borough Council representative requested details of hourly ATMs by 2037 and the associated noise contours with the new fleet mix, rather than simply annual figures, as frequency makes a huge difference. The SOU representative explained that it is difficult to know at this stage and no concrete figures can be provided as this would depend on airline scheduling. Nevertheless, they indicated that this would likely mirror current plans and explained that some detail on this had been factored into noise profiles and was available in the Master Plan. The Eastleigh Borough Council representative noted this but stated that it would be more transparent if the Master Plan contained information around ATMs per hour.

A Winchester City Council representative noted that a planning application is due for the Master Plan at the end of this month and queried whether there would be a longer consultation period for this type of application, and what the consultation deadline would be. The SOU representative said they will let Winchester City Council know once a clear deadline will be set.

A Western Air Thrupton representative stated that the future airport development plan showed development south of the existing terminal, where the 2037 showed the post office building in place. A SOU representative clarified this point. The Western Air Thrupton representative queried whether there would be development of the existing apron. The SOU representative clarified that this was not the case.

The SOU representative explained that the slide showing Southampton Airport's indicative layout in 2037 is an artists' impression only and not representative of a planning application. It shows what SOU could do, and we thought it would be useful to show you from an airspace perspective.

A Trax representative explained that where there is an overlap between the ACP and the Master Plan; it is in reference to the number of Air Traffic Movements and the aircraft types.

The Trax representative explained that from an airspace perspective, passenger numbers are irrelevant, and ATMs are the element that should be considered. They noted that by 2037 there would be a daily average expected around 155 ATMs, up from a current daily average of 110 ATMs i.e. an additional c.22 arrivals and 22 departures per day by 2037. They noted that the types of aircraft and the forecast schedule would be important to know when it comes to assessing route options, as we would need to consider noise etc. They clarified that ACPs typically look forward 10 years in terms of cost, benefit, and impact, whereas a DCO projects forward the lifespan of the application.

Points raised regarding Re-Cap of Airspace Modernisation

A Trax representative introduced FASI South and its history, and briefly commented on the introduction of the Airspace Modernisation Strategy (AMS). They noted the original Future Airspace Strategy was written in 2010 and that this evolved into the AMS last year. They stated that the 16 airports involved in the FASI South process are responsible for the airspace design/changes under 7,000 feet, with NATS responsible for the airspace above 7000ft. They highlighted the scale and complexity of the challenge.

They then asked a representative from Airspace Change Organising Group (ACOG) to clarify the role of their organisation. The ACOG representative stated ACOG is not just a NATS body, but rather a mixed group with secondees from various aviation related groups whose role is to oversee and coordinate the 17 ACPs (airports + NATS).

A Trax representative noted that from a community and stakeholder perspective, airports must coordinate their consultation activities, to ensure that communities were all represented and that the approach would be joined-up. They noted that stakeholders' views may change based on different proposals. They added that airports need to coordinate their engagement with their consultees and consider the cumulative issues. Many airports were developing design principles to avoid overflight of communities with multiple routes.

A Western Air Thruxton representative asked whether, with the division of responsibility between NATS and airports, they could reasonably assume that there will be a change to the upper limit of SOU's CTA, particularly to the North, in order to avoid what Flybe and others have noticed – namely the removal of the Winchester orbit. They also asked if any change would be to Classes E or D airspace, and not Class A? The Trax representative stated that nothing could be assumed and asked for further clarification.

The Western Air Thruxton representative noted that the upper limit of the CTA to the North was 5,500ft, but that at Southampton this increased to 6,500ft. They suggested that to provide acceptable descent gradients, there would need to be an extension to the North and a raising to the CTA base. They stated that GA users wanted to see no rise to the lower levels and that if this can be done to the north it can be done to the south.

The Trax representative stated that nothing could be assumed, but that if more airspace were needed by SOU, it would be unlikely to be Class A – though they noted that this was not a commitment, and this could not be confirmed, but was simply his expectation.

The Trax representative stated explained that there were several queries about how much extra airspace is required and that this must be linked to the Master Plan. They linked this to the figures on aircraft movements presented by SOU and noted that the figures presented by SOU were available in

the Master Plan. They noted that the increase in ATMs was not a huge increase from an airspace POV, putting this in the context of 110 to 155 ATM, though it may be significant factor in terms of passenger numbers. They noted that the important thing to ensure is that airspace must not constrain this growth.

The Trax representative noted that SOU was legally required to use PBN and that we cannot get away from the fact that this concentrates noise. On this basis, they said, the principles that were most important to communities generally relate to mitigating the effects of this concentration. They continued, saying that most people were in favour of sharing the burden, but that a small minority supported concentrating. They also noted that airports and ACPs need to consider all airspace users, including GA users.

The Trax representative presented an overview of the seven-stage process and highlighted that the present stage was Stage 1B. They noted the role of the CAA and pointed out that they were focused on the process, not the principles themselves. They stated that SOU are developing design principles along with our stakeholders and submit to the CAA the evidence of what they said, though this is redacted. They outlined that the CAA are checking whether we have applied the process, looking at how airports have engaged and how they have taken on board feedback. If feedback was not incorporated, there must be an explanation as to why not.

The Trax representative stated design options are sought to meet the principles, though these principles can contradict each other, before assessing them against the design principles, and taking forward options which best meet the principles. We have to show all options, including the ones that may be non-viable. After we create options, we come back to the same stakeholder groups and show all the options. Only then do we do the design principle evaluation followed by the options appraisal. The Trax representative drew attention to the process of option analysis and the down-selection of options, and the airport's ultimate selection of a preferred option. They noted that a public consultation would take place when the final options had been developed, and that feedback would be received through this process, stating that proposals may change as a result and that re-consultation may be required if the changes mean that the impacts articulated in the original consultation were materially different.

A representative from Compton and Shawford Parish Council asked about a rough timeframe for the process.

The Trax representative stated that ACPs typically take a minimum of two years but this will be longer owing to the dependency on FASI-S. A SOU representative noted that 2023 would be the earliest expectation for implementation. They stated that design principles are a framework against which to evaluate the options and that there is no requirement to use multiple routes, but it is a requirement to investigate and consider them. They noted that having things that mattered to stakeholders in the principles was useful.

Points raised regarding Feedback Theme of Safety

A Trax representative introduced the theme of safety, outlining the feedback received from the Aviation, Community, and Local Government and Business groups. Much of this involved reading from "Safety Feedback – A Summary" from the Follow-up Workshop presentation. They highlighted the following feedback themes from the presentation: the need for a baseline of safety performance to measure against; the need for a simple airspace structure; the need for routes to be deconflicted by design; the need for safety nets; the need for new technology use to be guided by safety; the need for visual demarcation of CAS for GA; the need to avoid pinch points; and the need to consider the risk of removing NAVAIDs.

The Trax representative explained that according to some feedback, stakeholders said that if airspace boundaries are changing, it would be helpful to have visual elements on the ground to help those who are flying visually, in addition to coordinates.

A Flybe representative said that it is important to consider the context of changes across 16 different airports, namely that overnight the routes for every airport will be different. They argued that from a safety point of view, simplicity would be very important and would be particularly important for pilots who only rarely flew into SOU. They explained that while they are committed to reducing noise, safety is the most important overall. You can have 45 different routes, but if people (pilots) are confused, this will reduce safety. They noted that ATC's are always working in the same airspace, but that crews may only go to a given airport a few times a year, meaning that simplicity was particularly key. A representative from Airspace-4-All agreed.

An easyJet representative told us that they were also involved with introduction of an ACP at Southend Airport, and stressed the need for communications management in the roll-out and implementation of this ACP.

A Winchester City Council representative queried how this ACP would affect the safety of small aircraft. The Airspace-4-All representative explained that if airspace is complicated and changes by time of day, then this could increase the risk of airspace infringement, which the the CAA has a legal duty to review and enforce accordingly all infringements, and that this could result in an infringement awareness course or the need for legal action.

A Flybe representative noted that infringements can lead to easyJet planes being pulled off routes and being put into circular holds, causing noise issues. They observed that SOU has some of the most infringed airspace in the world.

The Airspace-4-All representative explained that the process of enforcing against infringement is complicated as ATC's have to 'sanitise' the airspace when they see an infringement.

A Flybe representative noted that when GA traffic gets near the boundary of controlled airspace (even when the GA traffic is not going to infringe), there is a possibility that avoiding action is given. They are keen to see greater buffers between controlled and uncontrolled. The Airspace-4-All representative suggested that this was not correct, and that ATC's were not required to redirect traffic. A Flybe representative confirmed that ATC's did sometimes need to provide avoiding action if they thought an infringement was imminent.

A Western Air Thruxton representative noted that airspace around SOU is complicated and that it takes real effort to avoid its controlled airspace, and if changes occur, ATC numbers need to be reviewed. He stated there are not enough controllers at the moment and that SOU will need more to keep GA traffic safe.

A Trax representative noted that this point was raised later in the presentation and that some PBN routes could take a great deal of space, and that they needed to exist within CAS, though this did not need to be solely Class D. They also noted the community's desire that safety should not be compromised; that wildlife migration should be considered; that the proximity to roads and schools be considered; and that nature sites should be considered in relation to bird strikes. They asked specifically whether SOU get many bird strikes. A SOU representative confirmed that bird strikes were not common at SOU but that a lot of work was done to ensure this - SOU and other airports are required to have a Bird Management Plan.

The Trax representative noted the priorities of local government and business: safety as a primary concern; sufficient obstacle clearance retained; flight paths avoiding dense populations; and the risk of unknown aircraft interacting with airspace.

A Winchester City Council representative stated the GPS system needs to be safe from nefarious individuals, particularly against potential terrorism, to which the Trax representative stated should be captured within the technology principles.

Points raised regarding Feedback Theme of Flight Efficiency and Performance

The Trax representative noted that only a small number of aircraft can do short, final, curved approaches, and their feasibility this would be investigated by the airport, and that if an aircraft can make a continuous climb, it should require less controlled airspace. They noted the concerns of communities regarding NOx, air quality, and emissions and that they would welcome a reduction in airborne holding. They explained that airspace change does not inherently alter air quality, but that they were related, due to the impact of the forecast increased flights expected. The Trax representative noted that it's one thing to create a more efficient airspace for commercial planes, but if the result is that GA fly lower to go around, then there's an environmental impact to this.

The Trax representative noted the wishes of local government and business: air quality, noise, emissions Clean Air Zone consultation, etc. plus the desire to route aircraft over water, and the impacts on air and water quality. A Winchester City Council representative noted that the impacts of secondary development resulting from increased numbers (e.g. park and ride). The Trax representative noted that this would relate more to the DCO/masterplan, but that the airspace change sponsor would have to consider and demonstrate the impact of the change on air quality.

An Eastleigh Borough Council representative pointed out that steeper approaches would benefit Eastleigh, and this should be considered.

A Flybe representative stated that this would not necessarily be the case for arrivals but may have an impact on departures. The Trax representative pointed out that there may be differences in opinion for different local authorities but that closer local authorities had less desire for steeper climbs, whereas authorities farther away would have a greater desire for steeper climbs.

A Townhill Park Residents' Association representative noted that aircraft are already pulling up very steeply on departure and that the noise difference between this and arrivals was significant. They noted that there was a huge difference between aircraft, with larger aircraft being significantly louder, and noted that an increase in larger aircraft would have an impact. The Trax representative noted that aircraft were generally louder on departure, so the view on this depends on where you live.

An Eastleigh Borough Council representative noted the presence of an air quality management area, and that an increase in air traffic could reduce the positive impact of efforts being made elsewhere for air quality. They also stated that Eastleigh Borough Council are looking at a 50% increase in aircraft in airspace and asked at what point does the number affect air quality - air quality can be affected by places very far away do more planes equal more air quality issues? The Trax representative said that air quality is not a non-issue, but that generally impact is mostly passengers going to and from the airport and noted that SOU will need to show the impact on air quality of its ACP.

An Eastleigh Borough Council representative pointed out that since the last workshop, various local authorities had declared climate emergencies, and that Winchester and Eastleigh both had 2030 targets for carbon neutrality. They confirmed that strategies would be produced by these councils for environmental management and would liaise with SOU.

Points raised regarding Feedback Theme of Capacity

The Trax representative introduced the feedback given in terms of capacity, as outlined on the PowerPoint presentation. They provided clarification on what PBN stood for at the request of an attendant from AT. They noted the impact of SOU's DCO on an increase in ATMs and larger aircraft types, and that the potential change will affect the ACP. They also explained that SOU have to explain whether additional capacity will cause increase CO₂ emissions as part of the ACP.

Points raised regarding Feedback Theme of Noise

The Trax representative noted the feedback presented on noise, pointing out that more restrictive GA movements could have a significant impact on residents and that this could reduce the positive impact of commercial airspace adjustments - explaining that additional controlled airspace can increase noise from GA if they are forced to concentrate in lower areas. They noted that the current airspace is limited and that added new or multiple routes with sizeable gaps could require additional controlled airspace in some areas; emphasised that multiple routes must be considered.

An easyJet representative noted that respite meant different things to different people. The Trax representative agreed, highlighting the different views taken towards respite. They noted that this also included different perspectives on respite regarding noise: does it mean less noise at certain times of day or no noise at certain times of day? They also discussed differences in noise and contouring, should different routes be used.

An Eastleigh Borough Council representative commented that SOU had alluded to visual impact and that this was a concern for some stakeholders e.g. South Downs National Park Authority, stating that ecological impact needed to be borne out more strongly in the feedback outline, as it was present in the principles but needed more emphasis prior to this. The Trax representative confirmed that this would be added for the next workshop. The Eastleigh Borough Council representative added that the current noise feedback summary does not pick up non-human noise receptors.

A Winchester City Council representative noted that multiple respite routes may not be practical without expanding controlled airspace. The Trax representative stated that this has not been ruled out, but something to be cognisant of.

A representative from Independent Commission on Civil Aviation Noise commented that those who wanted to concentrate traffic / do not want to share traffic, should be brought to areas where traffic is presently, as the noise levels are unbelievable. A Winchester City Council representative empathised that Eastleigh residents will inevitably get noise no matter what flight paths are used, whereas changes to routes near Winchester could see a lot more complaints. They also asked how SOU are going to empirically assess consultative responses and come up with defined routes, as different airports within FASI South may view design principles differently.

The Trax representative noted that consultation responses are normally a mix of for and against, but that responses to consultations are generally in objection, regardless of the proposals as those in favour tend not to respond (because they are not affected)

A Townhill Park Residents Association representative commented on the emergence of new engine technologies, highlighting Rolls-Royce's approach to electric engines, and suggested that this should

be pointed out to residents, as this could make the pain of additional noise seeming more short-term. They continued that SOU need to really draw upon the long-term benefits.

The Trax representative noted that proposals could not be developed on the basis of potential technologies. A Flybe representative noted that airport expansion would see a shift from turboprop to turbojet or turbofan, and that this would affect not only the volume of noise but also the type (tone, pitch etc.). Similarly, they said the type of noise will change as you move up through sizes of Aircraft. they suggested that this should be considered sooner, rather than later. They also pointed out that smaller airplanes almost served as their own form of respite for local residents around LHR.

Points raised regarding Feedback Theme of Technology

The Trax representative introduced the feedback given on the theme of technology, as highlighted on the PowerPoint Presentation. they noted particularly the need for operators to have fail-safes in place. They summarised the feedback by saying that participants desired for technology to embraced, but not at the expense of safety. They observed that current air traffic surveillance cannot 'see' all types of Electronic Conspicuity and that if GA want access to CTA at the moment, they need to have the more expensive technology (transponders).

Points raised regarding Feedback Theme of Resilience

No comments from stakeholders in the room regarding this slide.

Points raised regarding Feedback Theme of Integration

The Trax representative explained the different classifications of airspace: Class A (commercial – very restricted); B (not present in UK); C (not relevant here); D (low-level around airport but clearance needed); E (easier access for GA but can have limitations); G (uncontrolled - no clearance needed and open to anyone). They noted that GA generally did not want Class A; that D was acceptable sometimes; and G was very desirable with E being preferable over D.

A Western Air Thruxton representative queried whether SOU had accounted for the judge-led inquiry into the use of airspace at a lower level.

Points raised regarding Draft Design Principles

The Trax representative noted that there are certain over-arching regulations that the ACP must meet and if it doesn't adhere with the Air Navigation Guidance 2017 then it will not be permitted - SOU have to demonstrate that it meets the Noise Policy Statement for England and all CAP1616 requirements

An Eastleigh Borough Council representative asked whether the ACP will need to meet the government's new noise strategy of July 2019, whose consultation was last year, or whether it will be out-of-scope. He stated that this could be found by searching for the government noise strategy. The Trax representative said they would investigate before finalising any design principles. They then went on to introduce the proposed principles for discussion on a per-theme basis, noting the need to consider each principle and the extent to which it was reflective of the feedback received. They requested general first thoughts before the individual consideration of principles.

The Trax representative noted that safety was typically prioritised, as SOU need to demonstrate that this ACP delivers an airspace that is as safe or safer. Other principles may be prioritised but that this is not essential. They noted that other airports had listed an order of priority, and that weighting was also an option. If the group wanted to discuss a priority, they were welcome to do so.

The Eastleigh Borough Council representative stated that given most of the discussion so far has related to environmental impact, they suggested that there is potentially a need for the environmental principles to be more strongly worded or given greater priority. They proposed changing language somewhere to include a need to reduce impact on the environment, specifically: they suggested that the first environmental principle should be changed to mean that the ACP should reduce, not just minimise, the impact. They suggested that there should be an aim of making net gains.

The Airspace-4-All representative observed that the whole purpose of the Airspace Modernisation Strategy (AMS) is to reduce environmental impact and that there should be a net gain to the environment as a result and that delivering steeper and more continuous descents and ascents will reduce environmental impact. The Eastleigh Borough Council representative agreed but stated that wording still needed to be tightened up.

The Trax representative noted that when design choices are made, the design principles are helpful. Ensuring Airspace Change leads to 'no worse' than today or no net gain in environmental impact would be a key factor. The Eastleigh Borough Council representative felt that the meaning of the second environmental principle, arguing that it is essentially meaningless and that the forum should want consistency of language between principles. A Winchester City Council representative provided clarification and explained the difference between minimising impact and avoiding degradation - saying no degradation, which means no worse, is not consistent.

A Townhill Park Residents Association representative asserted that satellite technology in airspace will have a definite positive impact on air quality, and argued that they had seen at Southampton International Airport Consultative Committee how satellite technology had improved flight paths, comparing the North and the South of SOU's airspace, through a rationalisation of flight paths and a reduction of holding patterns/plane stacking. They noted that airlines and airports were, really, a small proportion of air pollution. People may disagree through preconceptions, but through comparing the two systems working at the Airport today, you will see the difference technology can make – the North looks like spaghetti junction whereas the South doesn't. They also noted that using Satellites, ATC's can direct different planes to fly at different speeds to manage approaches, thus improving the air quality with no holds. They stressed that we should be concentrating on cars and lorries, which are kicking out pollution.

A Twyford Parish Council representative noted that there was inconsistency in language, and that “should not increase” should be used, rather than “minimise” in the environmental impact principles. An Eastleigh Borough Council representative stated that the use of “net gain” would be better wording.

A Gatwick Airport representative noted that any introduction of phrases such as “net gain” or “no worsening” would raise questions of current limits and benchmarks, and that it would be better to focus on objectives.

A Winchester City Council representative stated that they have no definite understanding of what contribution to air quality that regional aviation makes as they have no data, with monitors being at ground level. They noted that there was no way to establish whether any particulate came from an aircraft or from a ground-based polluter. They stated that measurements should all be about direction of travel, and that SOU should be looking to reduce track-miles.

The Trax representative suggested an alternative principle, to which no objections were raised: “airspace change arrangement contributes to improvement to the local environmental impact/air quality”.

An Eastleigh Borough Council representative commented on the presence of ecological receptors. The Gatwick Airport representative provided clarity on the question of ecological impact, noting that there is an element there in terms of flora and fauna – but not as a priority. The Trax representative suggested that there should be one overarching environmental principle, not three separate ones. No objections were raised to this.

An Eastleigh Borough Council representative commented that the third principle on noise should include statutory sites.

The Trax representative introduced the safety principles. A Flybe representative suggested that infringements should be specifically mentioned in safety, and that its presence in technology was not altogether appropriate. They stressed that design principles for SOU has to take into account the high-level of infringements. A Winchester City Council representative agreed. The Trax representative suggested that infringements could be worked into the first principle, to which there were no objections.

A Western Air Thrupton representative suggested that this principle should aim to be certain, using no “woolly words”. They proposed use of the word ‘avoid’ reduced certainty of things – and would prefer to say, ‘should not introduce/add complexity or bottlenecks.’ An easyJet representative suggested that it should also refer to enhancing segregation. An Airspace-4-All representative commented that segregation was not desirable for all as this would mean that GA users could not enter controlled airspace.

A Gatwick Airport representative noted that introducing complexity may prove necessary as a means for improving safety – meaning that ruling out additional complexity could have a negative impact on other aspects of safety. They stated that SOU might not want to rule out routes with multiple benefits by seeking to avoid complexity.

A Winchester City Council representative suggested the wording say it should be ‘as simple as possible’. The Trax representative stated that this would be considered but they were already aware of the complexity of existing airspace.

A Flybe representative suggested that SOU's airspace was more complex than LGW's despite the lower number of ATMs. A Gatwick Airport representative suggested that the simplification would be inherent in the changes being made, e.g. efficient departures and organisation procedures. The Flybe representative suggested that a detailed discussion was not yet possible, but that simplicity should be a general aim. They suggested that an overarching aim for Flybe was to have predictable routes, specifically for arrivals, as this would contribute to commercial success. They suggested that this should be captured in a principle and made it clear that as an airline, having predictable routes means predictable fuel. The Gatwick Airport representative suggested that predictability could be added as an objective of the airspace change proposal, as you could have predictability for both communities and planes - routes needing to minimise or avoid tactical intervention. A Flybe representative suggested that "procedural deconfliction" could be introduced.

The Trax representative introduced the proposed principles for noise. A Winchester City Council representative suggested that the principle about "fair and equitable share". The Trax representative confirmed that was currently the case, as the result of feedback from the elected representatives so far.

An easyJet representative questioned the notion that there should be no increase in controlled airspace. They felt that SOU need this to increase flexibility and achievability of other aims.

A representative of Compton and Shawford Parish Council pointed out that GA had a loud voice compared to others in the forum and noted that it was necessary to think critically about this. "Why should GA have a greater voice than communities?" The Airspace-4-All representative felt that point misunderstood the nature of the GA community. They stated that GA represented half a million people across the UK.

The Compton and Shawford Parish Council representative suggested that this was nonetheless a minority interest and asked why local communities should suffer.

A Western Air Thrupton representative noted that government policy is an aim to reduce the controlled airspace down to a minimum. The Airspace-4-All representative added that if ACP goes against government policy, it will be kicked out. The Compton and Shawford Parish Council representative suggested that whilst the Secretary of State's stated objective was to keep controlled airspace to a minimum, a principle should be introduced to increase controlled airspace and enable relief from noise. They then claimed that there was a predisposition against multiple routes in the room, saying that multiple routes and increasing airspace should not be ruled out. A Bournemouth Airport representative advised all that increasing controlled airspace could increase noise - if funnelled GA into narrow points.

The Trax representative stated that as part of this process SOU will show radical plans for stakeholders to view, which might contain the necessity of additional controlled airspace, and that some design principles will conflict, due to the amount of principles gathered during the engagement process. They noted that the Compton and Shawford Parish Council representative was unhappy with the presence of principles stating that CTA should not be expanded. They highlighted that they were obliged to work within the principles, and that there would certainly be options involving the expansion of airspace and would not be eliminated from consideration at this stage.

The Compton and Shawford Parish Council representative observed that environmental and noise issues come through strongest from the community, whilst the Airspace-4-All representative noted that airspace needs to feature in the ACP as well. The Compton and Shawford Parish Council representative stated that the airspace principle comes from GA, which may limit options available. They suggested that the first airspace principle's wording could be changed, as "should not" is very definitive.

The Trax representative suggested as an alternative the words “should seek to minimise the overall volume of controlled airspace”, noting that government policy says we must investigate multiple routes to offer respite. The Compton and Shawford Parish Council representative stated that multiple routes need to be considered, and that conflicting government policy shouldn’t mean a decrease in airspace.

The Trax representative stated that SOU have to consider how to minimise total adverse impact of noise and asked the room “What would you like to see?”

The Compton and Shawford Parish Council representative suggested the use of the words, or similar, “should seek to minimise the overall volume of controlled airspace”. A Flybe representative objected to this, stating that they did not want to reduce controlled airspace if there are not reasons for it, pointing out that Flybe have to justify any increases to controlled airspace before any changes are made. They stated that a balance needed to be struck, and they were happy with the existing wording.

An ACOG representative suggested that the wording of the noise principle may pre-empt the consultation to integrate consideration of respite. The Trax representative explained that the reason for this principle was to provide respite. The ACOG representative suggested that the principle should lean towards multiple routes, as this was the key factor affecting Compton and Shawford Parish Council.

The Trax representative stated that this was already in policy, so having a principle for this was unnecessary. They suggested a principle which explicitly included the consideration of multiple routes – specifically, adding “including consideration of multiple routes” onto the end of principle 2 on Noise.

An Eastleigh Borough Council representative suggested that the first noise principle should make mention of “humans and other receptors” of noise, not simply on communities. The Trax representative proposed removing “on communities” from this line to be more inclusive.

A Townhill Park Residents Association representative queried whether this was developed in relation to the movement of planes onto different take-off paths, and queried how different routes could be developed in the case of SOU, where people would begin to have low-flying planes overhead where this was not the case before. They stated that if you had multiple routes then people have low flying planes over houses they never had before, then this will lead to more complaints.

The Trax representative noted that the principle focused on total impact, not the number of people impacted, and that sometimes reducing the impact would require an increase in the number of people impacted. The Trax representative again suggested a removal of “on communities” from the first noise principle.

A Western Air Thruyton representative suggested that the final noise principle was not an ACP issue and was tied by a S106 agreement. The Trax representative confirmed this but noted that it was important for the principles to reflect all feedback - people mentioned it in their feedback.

A Winchester City Council representative queried whether this was related to sub-7000ft levels. They noted that it was almost impossible to avoid flying over South Downs National Park and that noise was almost inaudible above 7000ft. The Trax representative confirmed that the ACP related to sub-7000ft

A Winchester City Council representative queried whether there was an order of priority for areas of outstanding national beauty and densely populated areas. The Trax representative stated that government policy was not to prioritise either.

A BECG representative noted that time was short but that all participants had been provided with feedback forms and could therefore additionally provide written feedback to be included.

The Compton and Shawford Parish Council representative queried the point about complexity, asking whether we have ruled out making things more complicated. The Trax representative stated they had not but explained that SOU's airspace was already complex. A Gatwick Airport representative suggested that the words "should seek to" could be implemented into the principle about complexity to say that we haven't ruled it out.

An Eastleigh Borough Council representative suggested that SSSIs (Sites of Special Scientific Interest) should be added to the third bullet on noise. A New Forest National Park Authority representative challenged the evidence of noise impacts on SSSIs and their designation, arguing that this is captured by the third point under Environment. The Eastleigh Borough Council representative argued that the difference is between the location itself and the receptors e.g. animal species. The New Forest National Park Authority representative stated that SOU was probably unique as an airport surrounded by national parks.

[A Winchester City Council representative then left the room].

The New Forest National Park Authority representative emphasised that SOU need to consider the National Parks' statutory purposes. The Trax representative asked whether we should remove the principle on night-flights, with an explanation of why.

The Airspace-4-All representative suggested that on the third technology bullet, ADS-B could be replaced with electronic conspicuity.

Principles to be taken forward

The Trax representative summarised the main changes from the above exchange as follows:

Second Bullet of Safety: Should not introduce additional complexity and bottlenecks in both the network and class G airspace and should contribute to a reduction in infringements.

All Environment: Should ensure that the airspace change contributes to an improvement to the local environment, ecology, and air quality.

First Bullet on Noise: Should minimise the total adverse impact of aircraft noise.

Second Bullet on Noise: Should offer a predictable, fair, and equitable share of traffic across the arrival and departure routes, including a consideration of multiple routes.

Third Bullet on Tech: Should consider the use of electronic conspicuity to improve airspace integration where possible.

Glossary

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|-----------------------|---|
| <u>ACP</u> | Airspace Change Proposal / Process |
| <u>AGS</u> | AGS Airports Ltd |
| <u>ANSP</u> | Air Navigation Service Provider |
| <u>ATC</u> | Air Traffic Controller |
| <u>ATM</u> | Air Traffic Management |
| <u>ATZ</u> | Aerodrome Traffic Zone |
| <u>BOH</u> | Bournemouth Airport |
| <u>CA</u> | Civil Aviation |
| <u>CAA</u> | Civil Aviation Authority |
| <u>CTA</u> | Control Areas |
| <u>DME</u> | Distance Measuring Equipment |
| <u>EC</u> | Electronic Conspicuity |
| <u>GA</u> | General Aviation |
| <u>GBAS</u> | Ground Based Augmentation System |
| <u>GBN</u> | Ground Based Navigation |
| <u>GNSS</u> | Global Navigation Satellite System |
| <u>GPS</u> | Global Position System |
| <u>ILS/MLS</u> | Instrument/Microwave Landing System |
| <u>IOW</u> | Isle of Wight |
| <u>IRT</u> | Instrument Range Testing/Test(s) |
| <u>LARS</u> | Lower Airspace Radar Service |
| <u>MATZ</u> | Military Aerodrome Traffic Zone |
| <u>NATS</u> | National Air Traffic Services |
| <u>NAVAIDs</u> | Ground-based navigational aids |
| <u>NDB</u> | Non-Directional Beacon |
| <u>PBN</u> | Performance-based navigation |
| <u>SON</u> | Statement of Need |
| <u>SOU</u> | Southampton Airport |
| <u>UHF</u> | Ultra-High Frequency |
| <u>VFR/IFR</u> | Visual Flight Rules/Instrument Flight Rules |
| <u>VOR</u> | VHF (Very High Frequency) Omni-Directional Range (VOR) |

becg**built
environment
communications
group**

Development of design principles for
Southampton Airport's airspace change
proposal

Follow-Up Workshop 2

Version 2

Location: Holiday Inn Eastleigh, Leigh Rd,
Eastleigh, Hampshire, SO50 9PG

Tuesday 23rd July 2019

becg.com

Document Overview

This document is an overview of a Follow-up Workshop held with a mix of Aviation, Local Government and Business, and Community and Interest stakeholders on Tuesday 23rd July regarding the development of design principles for a change in Southampton Airport's airspace change proposal.

Please note that all conversation was summarised in the interests of transparency, although not everything stated by attendees was always applicable to Southampton Airport, the ACP or the Design Principles.

Workshop objectives

The objectives of the workshops were to:

- Increase awareness and understanding among participants about the need for airspace change and of the process for bringing it about.
- Offer clarification on points raised in feedback at the previous three design principles workshops on 27th June and 1st July.
- Provide a summary of the feedback received during the first three design principles workshops, from the feedback received in writing in response to these, and from the Focus Groups held.
- Explain the initial design principles statements that we have developed based on the feedback received so far.
- Gather feedback from stakeholders in response to these draft statements, with the aim of refining the design principles for submission to the CAA.

Attendees representing Southampton Airport

SOU attendees

- Employee 1: provided a brief overview of the Southampton Airport Master Plan at the beginning of the presentation, to address a request for clarification made by stakeholders at the initial workshops. He latterly provided additional information to stakeholders' questions where necessary, both in response to the presentation and when matters arose that required SOU input during the design theme discussions.
- Employee 2: observed the session and provided additional information in response to stakeholders' questions, where necessary.
- Employee 3: observed the session and provided additional information in response to stakeholders' questions, where necessary.

Trax attendees

- Trax Employee 1: led the presentation throughout the workshop; walking stakeholders through the points of clarification which emerged from initial workshop feedback; summarising the feedback received in response to the first airspace design principles workshops; presenting the feedback from the focus groups, held in addition; providing a recap of the need for Airspace Modernisation; outlining the proposed design principles which had been formulated in response to all feedback received; and seeking feedback from stakeholders in response to these draft principles.
- Trax Employee 2: observed the workshop and provided additional information to stakeholders' questions, where necessary.

BECG attendees

- BECG Attendee 1: facilitated the room discussion and ensured that all key objectives were met throughout the session.
- BECG Attendee 2: minuted the feedback.
- BECG Attendee 3: minuted the feedback.

List of Attendees

| Stakeholders Representing Organisations |
|--|
| Eastleigh Borough Council (Southampton Airport Consultative Committee) |
| Eastleigh Borough Council (Southampton Airport Consultative Committee) |
| CPRE Hampshire |
| Bishopstoke Parish Council |
| Lasham Gliding Society |
| Lasham Gliding Society |
| Wickham Society |
| Xclusive Jets |
| Bath, Wiltshire, and North Dorset Gliding Club and British Gliding Association |
| Goodwood Aero Club |
| Southampton Common and Parks Protection Society |
| NATS |
| Hampshire County Council |
| Airspace Change Organising Group (OBSERVER) |
| Airspace Change Organising Group (OBSERVER) |
| Dorset Gliding Club |
| Dorset Gliding Club |

Notes from the Workshop

Minutes of Previous Workshops

Each stakeholder in present had received a copy of the external minutes of the initial design principles workshop relevant to their stakeholder type, whether or not they had personally attended. As such, Aviation stakeholders received the external report on the Aviation Workshop on 27th June; Community and Interest stakeholders received the external report on the Community and Interest Workshop on 1st July; and the Local Government and Business stakeholders received the external report on the Local Government and Business Workshop on 1st July.

Trax Attendee 1 (TE1) – gave the attendees present at this Follow-Up Workshop an opportunity to comment on the contents of the minutes they had each received.

A representative of Lasham Gliding Society suggested that he had not received a copy of the internal report from the initial Aviation Workshop on 27th June.

A representative of Dorset Gliding Club suggested that she had not received a copy of the internal report from the initial Aviation Workshop on 27th June.

An employee of BECG stated that she would investigate this for both Lasham Gliding Society and Dorset Gliding Club.

BECG's communications records indicate that both representatives of Lasham Gliding Society were sent a copy of the minutes from the initial Aviation workshop on 10th July, on the basis that two of their colleagues had previously been sent communications for the Club. A copy of the minutes for this workshop were subsequently sent out to the Lasham Gliding Society's direct email addresses at 3.35pm on 23rd July, for the avoidance of any doubt. It was agreed that their direct emails would be included for future communications with Lasham Gliding Society.

BECG's communications records indicate that while an email was sent out to three representatives of Dorset Gliding Club with the minutes of 27th June's initial Aviation Workshop on 10th July, this was not received by one of these representatives owing to a typographical error in the email address held for her. This having been established, an email containing the report of the initial Aviation Workshop was sent to these three representatives at 3.59pm on 23rd July.

As no further issues or questions were raised in relation to the minutes of the three initial Airspace Design Principles Workshops (held on 27th June and 1st July), TE1 moved on to the next section of the presentation.

Clarification Questions

TE1 – then provided a recap of the questions and points of clarification which emerged from the initial three workshops. As part of this section, TE1 outlined the regulatory requirements on SOU, including (EU) 2018/1048.

TE1 – also explained the reason for the ACP was not predicated on (EU) 2018/1048 but FASI-S and the requirements for airspace to be modified to a PBN standard. As part of this, TE1 explained the (EU) 2018/1048 requirement for implementation of PBN for arrivals and departures by 2024 and the need to remove conventional navigation by 2030.

A representative of Lasham Gliding Society – enquired about the Airspace Modernisation Strategy (AMS), seeking more information on what this mandates SOU to do, especially how it relates to the delivery of PBN and implementing rules.

TE1 – replied that there are 15 objectives to the AMS, most of which are linked to EU regulations. He further noted that there are a number of different implementing rules, including the Pilot Common Project, which does not apply to SOU. He clarified that while the AMS links to these rules, the AMS itself has been prompted by FASI-S, before adding that there is no legal requirement anywhere for SOU to implement additional routes for arrivals and departure – rather, SOU are obliged to upgrade one of their arrival and one of their departure routes to PBN specifications as well as an RNP APCH to Runway 20 (LNAV, LNAV/VNAV and LPV).

A representative of Dorset Gliding Club – asked whether all arrival and departure routes out of SOU need to be modernised to PBN.

TE1 – clarified that there only needs to be one route to at least RNAV1 PBN specification to/from each end of the runway and there is no legal requirement for additional SIDs/STARs or Controlled Airspace.

TE1 – added that FASI-S requires a PBN systematised airspace environment and includes a requirement to remove reliance on conventional navigation by 2030. The ACP is expected to meet both of these.

A representative of New Forest District Council – asked PBN means / stands for?

TE1 – replied that this stands for Performance-Based Navigation, or ‘sat nav’ for planes, and that it allowed for highly accurate flight with less pilot intervention. He explained that this contrasts to today where most procedures use conventional navigation and require controllers to manually intervene very frequently.

TE1 – noted, however, that PBN does mean that routes will be concentrated, and that from a community perspective this means that Design Principles tend to relate to mitigations of this.

A representative of Dorset Gliding Club – stated that SOU and BOH airspace expanded to roughly Wareham and asked if there was a requirement for Class D airspace in a route from Exeter. She explained that at the moment they have many planes coming around airspace – which may be Class D – Is there a regulation for more Class D? People coming in from Class G from Exeter or BOH are 3,000 feet above us – sometimes even 2,000 feet – and we winch at 2,000 feet.

TE1 – explained that while instrument flight procedures should be contained within controlled airspace, there is no requirement to expand controlled airspace. He explained that there was some requirement

to implement controlled airspace for some aerodromes but that this did not apply to SOU. He added that for SOU there is no requirement to expand airspace.

A representative of Dorset Gliding Club – asked if there was a desire to expand to the West.

TE1 – said that this is not a question he can answer as it would relate to BOH's ACP.

A representative of Lasham Gliding Society – asked whether TE1 could say more about CAA policy changes due next year. He explained that there will be a CAA policy change next year and asked what its impact would be on this process.

TE1 – said that he was not aware of any planned policy change next year but was able to outline a number of potential changes which may take place. He noted that DfT may be planning to change legislation next year to force airports to start their airspace change plans.

A representative of NATS – said that there was a proposal for new legislation to go before Parliament next year, which could come into place in 2021+, but was not detailed in this answer.

A representative of ACOG – explained that there was some proposed draft legislation for Autumn 2020 but that this was a long way off.

A representative of Lasham Gliding Society – asked if this was the primary supporting legislation for FASI-S, requiring ACPs.

A representative of ACOG – replied that this is the case as far as he was aware.

TE1 – explained the process of design principle development and options appraisal. He explained that baselines would be developed in Stage 2B of the ACP, which was not likely to take place until quarter 2 or 3 of next year.

TE1 – invited a representative of Southampton Airport to outline current ATC issues faced by SOU.

A representative of SOU – introduced himself and noted that he had spoken to the ATC team at SOU. They mentioned to him that one potential solution to their issues would be to exploit technology, such as mandating transponders or electronic conspicuity. In addition, he explained that SOU could introduce procedurally deconflicted routes, which could have the benefits of reducing workload, reducing continuous monitoring from the controllers, a safer process with less segregation.

A representative of SOU – noted that in some cases GA traffic may be delayed. He also noted that SOU does not have a PBN route or sufficient controlled airspace, and that people living in Winchester are being overflown twice as a result, and that SOU would be attempting to alleviate the need for an orbit around Winchester if possible.

TE1 – clarified this point, noting that incoming flights coming from the north overfly Southampton, then Winchester, and that this is controlled manually by ATC. He said that this requires high radio workload and this takes place within tight controlled airspace boundaries. He noted that if SOU had a PBN approach this could lower controller workload, which could free up free up time for ATC to work with GA traffic to provide ATSOCAS.

A representative of CPRE Hampshire – noted that there are here today the airport experts and technical experts, but that there are also representatives from a non-technical background, including

environmental people, who are concerned about the impact, and people who know what the community want. He said that community members wanted to know who would make the decisions; whether there will be changes to flight paths; and what impact this could have on ordinary people on the ground. Could the experts remember this? People here may be naïve about the technology but are very concerned by impact – that's what people from the environment and community wanted to know about. He then asked TE1 to address these issues.

TE1 – replied that the issues he raised would be addressed in the overview of feedback in due course, following the explanation of technical issues.

Master Plan Slides

A representative of SOU – presented an overview of the SOU Master Plan. He noted that some of the feedback from groups was that there was a blurring and misunderstanding of the difference between the Master Plan and the ACP. He noted that while the Master Plan and the ACP are completely separate, and should be treated as such, he acknowledged that there is some overlap between the two, since ground operations are necessarily affected by airspace. That said, he emphasised that the processes for determining the Master Plan and ACP are different and that the documents online are separate.

A representative of SOU – said that he wanted to share some of the headline features of the Master Plan to the group, presenting SOU's assessment of its future ATMs, increasing from the 39,300 ATMs in 2017 to 57,800 in 2037, saying that these are what SOU understand to be the demand in the region and what we feel we can deliver.

A representative of SOU – noted that the number of ATMs obviously impacts what SOU need in the sky and that the desire to increase ATMs would impact the ACP, as provision needed to be made for these. He added that passenger number growth in-line with the Master Plan is less relevant to airspace than it is to ground infrastructure.

A representative of SOU - requested that feedback on the Master Plan be await on the Development Consent Order (DCO).

A representative of SOU – added that there will be no requirement for night flights within the Master Plan and that all development would be contained within the existing site boundary.

A representative of Dorset Gliding Club – asked if there were ATM figures for 2008, and noted that they were higher in 2008 than 2017, and asked if these figures were available. He wondered how these numbers relate to proposed ATMs in 2037.

A representative of SOU – noted that these figures were not available at present but could be provided later.

A representative of Dorset Gliding Club – noted that the numbers were highly relevant. He noted that SOU seemed to desire an increase in airspace capacity as a result of its desire to increase ATMs, yet everyone should be aware that in the past a higher number of ATMs had been accommodated within the same airspace.

A representative of SOU – noted that the capacity question was not present yet.

A representative of Lasham Gliding Society – stated that there has been a 20% drop in ATMs from 2008 to 2018 and that there had been a significant reduction in the forecast of ATMs, stating that in 2006 the forecast made for 2030 was 93,000 ATMs. He therefore disagreed with the requirement for more airspace capacity.

A representative of Lasham Gliding Society – argued that on this basis it can be seen that no airspace change is required to support the projected movements from the Master Plan.

TE1 – said that it was not yet clear whether an increase in ATMs would require airspace change to support it but suggested that it would not be a shock to him if it did not. He added that the runway extension proposed by the Master Plan would need to be made, but that an increase in movements from 110 to 155 movements per day on average is not monumental.

A representative of Lasham Gliding Society – stated that at Lasham Gliding Society they have 64,000 movements per year and that SOU's number of ATMs are not large for the current airspace.

TE1 – stated that there had been approximately 45,000 ATMs in 2008. He reiterated that the driver for airspace change is not the Master Plan, but that the future airspace design should not constrain the forecasts within the Master Plan.

A representative of NATS – noted that while there is no capacity constraint at SOU, there is a capacity issue in South East England. He noted that PBN is an EU mandate – which provides for safer, cleaner, quieter transport – and caters for significant benefits within the South East England. He stressed that this ACP is part of the FASI-S process, and that it must therefore be considered in this context – where you have another 16 airports and perhaps the most congested airspace in the world – it's important that we understand this.

A representative of Eastleigh Borough Council – noted that even with the comments made about why the ACP is needed, we need to consider the environmental side of airspace change, such as potential to bring down fuel costs and reduce the areas overflown – the environmental side must not be forgotten.

A representative of SOU – agreed with this point and emphasised that the Master Plan is also about the sustainable development of SOU, and that environmental aspects are key to this.

A representative of SOU – then outlined SOU's plans for Future Airport Development providing an outline of the airport's potential future development. He introduced the runway extension for which a DCO would likely be submitted to Eastleigh Borough Council within a month. He showed an artist's impression of what may be possible in 2037, though these would not constitute part of the DCO.

TE1 – emphasised that thresholds at either end of the runway would remain the same despite the extension, therefore approaches would not be affected.

A representative of Eastleigh Borough Council – queried the potential for a tunnel under the runway to link the aprons at the bottom and top of the artist's impression.

A representative of SOU – agreed to talk to the representative of Eastleigh Borough Council about this further after the workshop, noting that this was not part of the ACP.

A representative of CPRE – was not happy with this answer, suggesting that the representative of SOU and TE1 can't or won't give answers to questions relating to the Master Plan.

A representative from SOU – stated that he was happy to answer questions, but separately from the ACP workshop, as it related to the DCO. He added that he would be happy to answer questions afterwards.

TE1 – returned to the presentation. He noted that the relevant element of the Master Plan is the number of movements that the airspace needs to accommodate, as well as the types of aircraft. He noted that this runway extension will allow more frequent use of larger types of aircraft.

A representative of the Wickham Society – asked what the reasoning is behind the runway extension if the use will remain the same.

A representative of SOU – responded that it was to facilitate different types of aircraft at SOU, and that it related to SOU's anticipation of its future, in order to facilitate greater numbers of certain aircraft at the airport. He added that most of SOU's fleet is turbo-prop and that an extension would allow SOU to accommodate larger aircraft – SOU think that these plans give us what we need for more A320 and B737 aircraft to use the airport – and to give airlines the ability to fly to more distant destinations. These would be the same types of large aircraft already using the airport, but more frequently.

TE1 – noted that an increase in the number of larger types of aircraft using the airport is something they need to consider for the ACP, including because of their environmental impact.

A representative of Hampshire County Council – noted that she is the environment lead among politicians on Hampshire County Council. She requested clarification on the planning applications will be submitted – she thought there might be planning applications for both the ACP and Master Plan.

A representative of SOU – clarified that the process for the implementing the Master Plan will be through an application to Eastleigh Borough Council, with consultations on the ground infrastructure changes. He added that the ACP would not be a planning application, but was part of FASI-S.

TE1 – clarified that the ACP will go through the CAA.

A representative of Hampshire County Council – asked whether local authorities will be invited to comment on the ACP, citing the case of the Farnborough Airport, where she suggested that local authorities did not have a chance to comment on its ACP.

TE1 – Advised that LAs will most certainly be invited to comment and indeed that was why they had been invited today, to engage at the very start of the process.

A representative of Hampshire County Council – requested clarification about the timelines for a decision on the ACP and its implementation.

A representative of SOU – noted that the DCO would be submitted in August to Eastleigh Borough Council.

TE1 – noted that the earliest that the ACP would be submitted would be around 2021/22, with implementation around 2023/2024. He mentioned that there is dependency on the airspace changes for other FASI-S airports, and that this timescale could move.

A representative of Hampshire County Council – sought clarification about if the Winchester Loop might end.

TE1 – noted that this could not be guaranteed and would relate to the timescales and options of the ACP.

A representative of CPRE – noted that members of the public will take the view that extending the runway extension will mean more movements.

A representative of SOU – clarified that they were indeed suggesting that there would be an increase in movements; with the runway extension SOU could go from 2 million to 5 million passengers, given more movements and larger aircraft.

Re-Cap of Airspace Change Process

TE1 – introduced the themes which had been considered at previous workshops. He presented a recap of FASI-S, and the ACPs which were taking place throughout the UK. He noted that while each airport was responsible for its own ACP, ACOG was working to ensure that they were complementary. He noted that all 16 FASI-S airports except Bournemouth (BOH) had begun their processes. He further explained the role of NATS in this, noting that they are responsible for all airspace above 7,000 feet.

TE1 – further explained that the process of co-ordinating the process of airspace change across 16 airports is extremely complicated, and that as such the timelines are fluid.

TE1 – introduced SOU's ACP, and the constraints and opportunities this presented, including the meeting of growing demand; the potential for improving precision and flexibility; and the potential for development of airspace at lower altitudes, including the potential for changes to controlled airspace boundaries. He explained that there was a desire to not increase controlled airspace, and that any increase would aim to be mitigated.

TE1 – noted that controlled airspace is generally managed by air traffic – and that as a general rule if airspace grows to accommodate commercial planes, it has the potential to squeeze uncontrolled airspace and limit GA traffic. He added that it is industry intention not to increase controlled airspace but on the one hand, PBN can enable continuous climb and descent and free up more CAS further from the airport, while on the other hand, PBN may require more controlled airspace in the lateral dimensions at lower level where large turns are required.

TE1 – introduced the regulatory airspace change process and introduced the process of developing design principles. He noted that all principles, when further developed during this session, would be shown again to the attendees present, and that feedback would be requested. He summarised the process, including the CAA's approval of draft consultation material, and that consultation would include options, including SOU's preferred options. He noted that there is a requirement to address consultation feedback, and that SOU may be required to re-consult on its options if the changes made are significant and result in a change to the impacts described in the previous consultation. He noted that designs would then be reviewed and submitted to the CAA for approval. He noted that this process would culminate in an implementation period and a post-implementation review, 1 year later.

TE1 – noted that the design principles were a framework, governed by overarching policy which absolutely must be met. He noted that options would aim to be designed to meet the principles. He noted that principles could contradict each other, and that option development would aim to meet the standards of the principles. In short, he said, while there is no magic airspace design which will meet

everyone's needs – it's about finding an option which will meet/balance as many of the principles as possible whilst adhering to policy.

Points raised regarding Feedback Theme of Safety

TE1 – presented a summary of the feedback received on the theme of safety. He explained the summarised feedback in greater depth: the need for boundaries to align within VFR reporting points; the need to avoid pinch points; the factors relating to NavAid removal; the proximity of roads and schools; and the importance of nature and environmental considerations. He noted the importance of managing unauthorised airspace infringements.

TE1 – drew a number of points out verbally: that in the feedback a lot of pilots said that they are currently using NavAids to stay clear of controlled airspace, and that as such there were requests not to get rid of all of the NavAids to maximise ANSP efficiency– but to keep some redundancy in the system for GA aircraft to stay out of controlled airspace.

TE1 – noted that safety was perhaps the simplest theme, and there was agreement in the room that airspace must be safe.

A representative of Bishopstoke Parish Council – noted that security was a key issue in the discussions he had at the last workshop he attended on 1st July. Not so much security of passengers, but a concern regarding alleged new technology which is not proven well enough to be used. He cited the example of the Boeing aircraft which have crashed recently. He explained that he works for a company which tends not to use things designed yesterday, but stuff which was designed within the last 10 years.

TE1 – replied that this feedback would be considered under the theme of technology, but also noted that PBN is not new technology. He said that it has been around for over 10 years. He said that although you are right to say that it relies on satellites there is a requirement for redundancy as part of the process, and that SOU must demonstrate to the regulator that it would be sufficiently secure and reliable.

A representative of NATS – noted that the possibility of the failure of the GPS system was a front-and-centre issue for the government at the moment. He added that you will have to have a minimum operational system to fall-back on – so there will be a number of NavAids – and there are a number of discussion ongoing regarding Galileo.

TE1 – noted that if there was a GPS failure, there would be bigger issues than ATC.

A representative of Bath, Wiltshire, and North Dorset Gliding Club – noted that the presentation was important but said that this was an extremely high level overview.

TE1 – clarified that the presentation section on feedback is a high-level summary of the feedback.

A representative of Bath, Wiltshire, and North Dorset Gliding Club – argued that this is an important document because it is the beginning of SOU's synthesis of feedback received and the beginning of SOU's principle development process, and it was important not to gloss over it or rush through it.

TE1 – replied that we will show the draft principles later which we think cover this concern.

A representative of CPRE – enquired about the safety implications of possible runway extension to the North. He asked whether there would be safety implications regarding the area to the South – he noted

the dispute to the South about Marhill Copse and the trees, and asked if extensions to the North would have similar implications, especially given the potential development area to the North.

TE1 – noted that, yes, there will be a safety assessment of any changes to the runway.

A representative of New Forest District Council – noted that the safeguarding of the tranquillity of the National Parks does not seem to be on the list.

TE1 – noted that this is picked up on the feedback section regarding noise.

A representative of Lasham Gliding Society – noted that the summary of the feedback in this presentation seems to be extremely high-level and that he did not recognise some of Lasham's points within the summary provided. He then enquired about what would be the output of the session.

A representative of Lasham Gliding Society – added that he did not recognise in the presentation feedback summary thus far some of the points that Lasham had made in their feedback to the first workshop, noting as an example that Lasham do not want chokepoints in Class G airspace to be created or exacerbated. He stated not to see a carrying forward of the specific to the general. There was a general agreement among stakeholders on this point.

TE1 – replied that the output of this workshop will be a report of the minutes of the workshop and any proposed changes to the draft design principles. He replied that Lasham's feedback is reflected later in the presentation. He continued by saying that all feedback received will be submitted to the CAA and published publicly on their portal. He asked both representatives of Lasham Gliding Society to hold that point as we walk you through the feedback summary and asked for further comment from them if they feel something specific has not been addressed later on in the presentation.

A representative of Lasham Gliding Society – claimed that in order to get a summary onto one slide Trax have generalised to the point that it is hard to see that our inputs have not been taken into account.

TE1 – replied that this is one of the drawbacks of a presentation. Slides are intended to guide the conversation and all feedback received had informed the summary on the slides at this stage. He noted that when the principles were presented at the end, it would be possible for attendants to feedback on these and at that point, and that if feedback had been missed, it should be raised again.

Points raised regarding Feedback Theme of Flight Efficiency and Performance

TE1 – introduced the feedback relating to this theme, as outlined on the PowerPoint. He noted that airports historically proposed airspace change to improve their efficiency, and that other aviation stakeholders had provided feedback to suggest that this could have negative implications for their own efficiency. He noted that this could also have implications for noise.

TE1 – he noted as part of this feedback summary that local government stakeholders considered emissions to be as important as aircraft noise.

A representative of Hampshire County Council – replied to this point by noting that many local authorities surrounding SOU had declared climate emergencies in recent weeks – asking how this squares with SOU's ACP plans. She declared herself surprised at the seeming low priority given to carbon emissions and environmental considerations. She noted that this would be the major point of

pushback on planning applications at the moment. She continued by saying that there seems to be a low commitment to climate neutrality in this feedback – it's not hitting her as a high priority in this list.

A representative of Eastleigh Borough Council – agreed with a representative of Hampshire County Council that environment and air quality and the environment should be at the top of the political agenda at local level and even more so at national level. He stated that this is a high priority for the government regardless of the ACP process.

TE1 – noted that this feedback would be taken onboard and clarified that there were different environmental considerations given priority at different altitudes. He noted that the PowerPoint was not listing items in priority order, but that CAP1616 had been developed with the impact on communities in mind. Specifically, he noted that noise is a specific priority below 4,000ft.

A representative of CPRE – noted that noise and CO₂ are not contradictory and need to be considered together.

TE1 – stated his agreement with this and noted that he had simply been reciting government altitude-based priorities, which say that noise is a priority below 4,000 feet.

A representative of CPRE – explained that there is a government air quality strategy that has recently been produced, and that it had recently been revised.

TE1 – asked for clarity, as he believed that this was something that had been brought up at a previous workshop.

A representative of CPRE – stated that it was the revised government air strategy 2019 – and that it was about time that the aviation industry took account of it.

A representative of Wickham Society – noted that she was surprised that the community section of the flight efficiency feedback summary does not include a point about noise, and that she felt it must be captured. She mentioned that at the last workshop she went to last time there was a teacher who couldn't open her windows because of flights going over. She feels noise needs to be captured more.

TE1 – confirmed that noise will be considered in a later feedback summary.

Points raised regarding Feedback Theme of Capacity

TE1 – introduced the feedback received on the theme of capacity, as shown on the PowerPoint. He noted that many airports' Master Plans were more ambitious than SOU's, with much larger forecasts.

TE1 – observed while outlining this feedback that SOU has rather a lot of cancellations and diversions at present.

TE1 – noted that PBN had pros and cons, and that it must be smartly applied.

TE1 – noted the disbenefits of operating at maximum capacity.

TE1 – noted that he had provided earlier clarification on the different applications and processes which SOU would be undertaking (relating to the DCO and the ACP).

TE1 – noted that a cost-benefit analysis would be undertaken as part of the ACP.

A representative of Lasham Gliding Society – asked if this cost-benefit analysis would include any potential impact on general aviation – asking “will you commit to a cost-benefit analysis on GA as part of this”.

TE1 – after some thought said he believed the CBA does include all airports and airspace users, so I believe it would be in there.

A representative of Dorset Gliding Club – argued that airspace designs need to be future-proofed – and that one way of potentially doing that could be to agree what SOU need in terms of current and future capacity, but only implement extra airspace to meet this when the capacity when they are needed – and suggested a phased implementation.

TE1 – suggested that it is potentially possible to use a phased implementation or introduction of airspace change.

A representative of Dorset Gliding Club – asked whether, if phased implementation based on demand was agreed, some airspace change may never be implemented.

TE1 – replied that yes, in principle, this could be the case.

A representative of Dorset Gliding Club – noted that in previous meetings it was mentioned that there is a possibility of turning on and off airspace, which she believes is done in Europe.

TE1 – noted that flexible-use of airspace did exist within the UK, and that airspace at SOU was disestablished when the airport was closed.

A representative of Eastleigh Borough Council – argued that the line relating to ‘future-proofing so further changes are not needed’ goes too far and argued that there needs to be some provision for review within the design principles. She agreed that implementation in tranches or phases would be sensible, but she stressed that provision for review was fundamental.

TE1 – sought to clarify whether he understood the Eastleigh Borough Council representative’s point to be a suggestion that there should be a mechanism for undoing implementation if capacity were no longer needed, and whether there should be a facility for revision of airspace if capacity is not filled.

A representative of Eastleigh Borough Council – nodded in reply to this.

TE1 – explained that Stage 7 of CAP1616 requires a post-implementation review (PIR) that is intended to test the extent to which the expected outcomes and benefits of the airspace change have been realised. In this context, there had been instances in which controlled airspace had been disestablished because the expected traffic levels had not materialised. One example relates to operations at Southend airport, where controlled airspace was disestablished in 1993 (before being re-introduced in 2015). TE1 was not aware of any formal review process after the PIR and considered that this would be a for the CAA or DfT.

A representative of NATS – noted that any organisation could submit an ACP.

Points raised regarding Feedback Theme of Noise

TE1 – presented an introduction of the feedback received regarding the theme of noise, as outlined on the PowerPoint. He noted that noise from GA traffic could increase as a result of changes in controlled airspace. He noted that continuous climb and descent would, in principle, reduce noise. He noted that respite routes may not be possible in the case of SOU, but that SOU was nonetheless required to consider multiple routes including respite routes. He noted that multiple routes could require additional controlled airspace.

A representative of CPRE – queried what SOU's proposal is for its ACP.

TE1 – explained that SOU had not made any proposal yet, but that ACP sponsors were required to consider respite under Air Navigation Guidance 2017.

A representative of CPRE – noted that respite for one must inevitably mean pain for somebody else.

TE1 – confirmed this, and confirmed that SOU had not yet produced any route designs. There are no designs proposed at all at this stage.

A representative of the Southampton Common and Parks Protection Society – noted that he was in the Community and Interest workshop on 1st July with a representative of the National Farmers' Union, and that during this meeting he mentioned that poultry can be caused to take fright by certain unexpected noises. He also explained that at this meeting they discussed consideration of amenity areas which are used principally for recreation, such as national parks, AONBs, and green areas in Southampton, such as Southampton Common.

TE1 – explained that there are specific references to tranquillity areas later in the design principles. He added that CAP1616 and/or webTAG makes specific reference to AONBs, SSSIs, and National Parks.

A representative of the Southampton Common and Parks Protection Society – requested that areas where tranquillity is important be specifically added to the design principles under Noise.

TE1 – noted as part of this feedback review that if you implement new routes you will move noise, and that as a result the noise contours will change. He explained that noise contours were assessed based on actual radar data and noted that moving routes would change these. He noted that it was therefore impossible to change routes, ATMs, or aircraft types without altering these contours. He noted that there had been a request to maintain SOU's current noise contours, and that there had been a request to reduce noise pollution.

A representative of New Forest District Council – noted that the Local Government and Business group at the previous workshop did pick up on poultry, yes, but that they had also discussed noise's impact on nature beyond poultry. He said that in this meeting there was a lot of emphasis on National Parks – and that he was surprised this was not more reflected in this feedback summary.

TE1 – explained that there is always a trade-off between routes over National Parks and open spaces or residential areas – adding that generally people want no routes over houses, but also that generally people do not want them over the open spaces they use to find tranquillity. There is no right or wrong answer to this.

A representative of NATS – mentioned that PBN routes provide more options as they give you the ability to accurately fly along particular routes with greater precision – for example you can accurately route

along the length of rivers – Vienna have routes which bend around two villages; in Toronto they go over brownfield sites.

TE1 – noted that there was a suggestion to go over water – which is generally a winner.

Points raised regarding Feedback Theme of Technology

TE1 – presented an introduction of the feedback provided on the theme of Technology, as outlined on the PowerPoint. He noted as part of this overview that new technology could reduce the need for Class D airspace and enable maximum access for general aviation. He also noted that ADS-B came up a lot in previous discussions – which he explained is a type of signal that aircraft can transmit. He said, however, that one of the problems is that, from an ATC perspective, it is currently invisible as technology in control towers is different. He clarified that there are plans afoot to integrate technology, but they have different dates to assess these. He observed that for aircraft owners, ADS-B is normally lighter and cheaper.

A representative of Dorset Gliding Club – queried whether FLARM had been considered.

TE1 – noted that FLARM is non-proprietary and can be switched off at-will and therefore may not be necessarily advantageous.

A representative of Dorset Gliding Club – suggested that FLARM should be considered and should be introduced.

TE1 – stated that it was a non-starter with the CAA.

A representative of Bath, Wiltshire, and North Dorset Gliding Club – was cross that TE1 did not seem to want to record feedback related to FLARM. He suggested that the presentation summary of Technology feedback on the slide did not refer to FLARM – he requested that FLARM is definitely recorded as his preference in the feedback. *This has been recorded in this feedback report.*

TE1 – reminded a representative of Bath, Wiltshire, and North Dorset Gliding Club that the minutes of this meeting will be submitted to the CAA, but that he saw no value in including it in the feedback summaries on the presentation slide because the attitude of the CAA meant that FLARM will not be put forward as enabling ATC surveillance technology by an airport sponsor.

A representative of Bath, Wiltshire, and North Dorset Gliding Club – wondered aloud what else Trax might be ignoring then. He suggested that there was a question of what else was being omitted, as TE1 had the potential to ignore things that are important to the people in this room.

TE1 – stated that feedback was not being deliberately omitted, but that he did not see value in highlighting something around which a principle would not be further developed – and reminded a representative of Bath, Wiltshire, and North Dorset Gliding Club that the reason for this is that FLARM is a non-starter with the CAA in terms of ATC surveillance.

A representative of Bath, Wiltshire, and North Dorset Gliding Club – pointed out that there was a question of who would pay for the kit to deliver electronic conspicuity then.

A representative of Dorset Gliding Club – argued that if there will be a requirement for ADS-B then airports should be paying for it for GA.

A representative of Bath, Wiltshire, and North Dorset Gliding Club – indicated that if we get into the realm of ‘who pays’ for equipment then you get into difficult territory.

A representative of Dorset Gliding Club – said that they are losing their business because of a loss of airspace to Farnborough Airport.

A representative of Lasham Gliding Society pointed out that for PBN RNAV1 SIDs and STARs (PBN ‘procedures’) the normal default (following ICAO and CAA separation policies) is Class D airspace, though exceptionally a lower class may be allowed if safety assessments justify. TE1 was not aware of any specific policy that states Class D airspace is the default for PBN RNAV1 SIDs and STARs but agreed that some form Controlled Airspace is usually required. It was also agreed that historically, Class D had been used for CTR/CTAs. Lasham’s representative proposed that the introduction of new technology which may reduce the requirement for Class D airspace is desirable.

A representative of Lasham Gliding Society – noted that Class D airspace was the default for controlled airspace.

TE1 – stated that there was no formal default, though it had been assumed in the past. He added that there are no regulations to say which Class of airspace to use.

A representative of Lasham Gliding Society – noted that this meant that it was the default in practice. He added that the initial focus for this ACP was first published it referred to talk about separation – and he believes this refers to Class D.

A representative of Lasham Gliding Society – requested clarification from NATS.

A representative of NATS – stated that it was a CAA decision and case-by-case.

A representative of ACOG – interjected that from his recent conversation with the CAA they appear to be changing their stance and moving towards Class E. He said that one of CAA’s principles is to remove controlled airspace as much as possible and mitigate it.

A representative of Lasham Gliding Society – asked if this related specifically to RNAV1.

A representative of ACOG – said that he could not guarantee this – but that he could not count out that for RNAV1 you need Class D.

A representative of ACOG – said that this was not clear.

A representative of Lasham Gliding Society – asked if there was a policy document for this.

A representative of ACOG – stated that there was not yet, and provided additional clarification.

A representative of Lasham Gliding Society – thanked a representative of ACOG for this clarification.

TE1 – returned to the presentation, and highlighted community concerns regarding security, as noted earlier in the workshop.

TE1 – highlighted that GPS technology was not new, but noted that there had previously been issues relating to GPS failure and tampering.

Points raised regarding Feedback Theme of Resilience

TE1 – introduced the feedback relating to resilience as outlined on the PowerPoint. He noted that there are concerns about resilience against adverse weather conditions, saying that it doesn't matter how clever your routes are, if there are bad storms, the aircraft will not fly those routes. Thus you need to investigate ways to make routes resilient to weather.

TE1 – noted that there was a desire for resilience not to be prioritised over safety in the feedback.

TE1 – noted the need to consider both present and future policy while considering this feedback.

TE1 – He noted the importance of airspace infringements and noted the existence of mechanisms for taking action against infringement. He noted that SOU received a large number of infringements due to the complexity of its airspace.

TE1 – noted the importance of considering expansions in controlled airspace elsewhere, and the constraints this could place on GA.

Points raised regarding Feedback Theme of Integration

TE1 – introduced the feedback relating to resilience as outlined on the PowerPoint. He highlighted here that attendees previously noted that SOU and BOH are very close together.

TE1 – highlighted that from a community and airspace perspective concerns were raised that air-grabbing by other airports would mean there is not enough for others. If SOU were to grow, for example, it might restrict general aviation.

TE1 – highlighted that you don't necessarily need multiple routes for respite, as you could just restrict their use during times of day to share this. He stated that a concern was raised about separating aircraft – some people said keep planes apart with as much controlled airspace as possible – not to say that we are having as principle.

Points raised regarding Draft Design Principles

TE1 – began the session on the Draft Design Principles by explaining that these are the general principles – overall principles – that Trax will seek to achieve through the airspace design. He noted that they are not the be-all and end-all, and that some of them can contradict.

TE1 – then outlined the Air Navigation Guidance and Noise Policy Statement for England. He noted that airspace sponsor must meet these as part of the ACP, regardless of principles.

A representative of Dorset Gliding Club – argued that there is very little to suggest that plans must be implemented with FASI – and specifically with BOH’s plans – which is our neighbour; and as such where most of the cross-over work will need to be.

TE1 – argued that the CAA would consider the extent to which all ACPs had accounted for each other. He mentioned that Trax and SOU had spoken to BOH and that we know we need to take account of BOH, noting that with all airports we need to show that we have taken account of all surrounding airfields and airports.

TE1 – observed on this point that the aviation industry has been asking whether airports with airspace dependencies on each other can go through Stage 2 separately, or whether they can only process together, and that this question has not yet been answered by the CAA.

A representative of Dorset Gliding Club – requested that this lack of certainty be reflected in the design principles

TE1 – confirmed that this broad point can be reflect in your feedback, but he questioned whether it is a design principle as such.

A representative of Dorset Gliding Club – suggested that it should be a principle and written down as things which are a “given” generally get forgotten.

A representative of New Forest District Council – referred back to the earlier conversation regarding co-operation between airports and suggested that SOU consider “in combination effects” as part of their design principles when assessing impact – and that BOH should be considered in this regard.

A representative of New Forest District Council – added that this should be a “must” – that SOU “must” consider these in combination effects.

A representative of SOU – suggested that it could be added to the mandatory list.

TE1 – noted that this was a good suggestion for the principles as well and noted it down.

A representative of Southampton Common and Parks Protection Society – raised a question about whether other, e.g. MOD, airports would be included.

TE1 – stated that underpinning the whole process is the need to show that it is safe and feasible to implement this ACP, explaining that SOU would have to demonstrate that the effects, including cumulative effects.

TE1 – noted that the MOD are a statutory consultee for all ACPs.

TE1 – suggested the principle “shall take into account the effects of all neighbouring airports and ____”.

A representative of Southampton Common and Parks Protection Society – interrupted him and suggested that all military aircraft need to be included here. He then said that in a worst-case scenario a military jet has to escort aircraft, noting that they need access and you may not know where they are coming from.

A representative of NATS – cited the example recently of two tornadoes just turning up and advised that at this stage the group not focus on this granular detail but focus on general principles.

A representative of Southampton Common and Parks Protection Society – then noted that the other issue to consider with the military are those areas of RAF airspace which are not currently in use or not used often.

TE1 – noted that the MOD had a great deal of influence over airspace – describing them as a significant stakeholder – and that he was confident that MOD operations were covered in SOU’s ACP.

A representative of Hampshire County Council – noted the planning term “duty to cooperate” could be the best language to use in a potential principle on how the airports’ combined changes affect noise.

A representative of NATS – noted that the problem with CAP1616 was that it deals with airports in the singular but there is a need to take into account cumulative effects. He clarified that while the CAA oblige airports to consider cumulative effects but they do not assess airports in that way.

A representative of Lasham Gliding Society – noted that there is no lower airspace strategy against which this had been designed, and that such a strategy would be highly beneficial and should therefore be a prerequisite for how these would be designed. We need a lower-airspace strategy.

TE1 – noted the previous contribution from a representative of Airspace-4-All regarding a lower airspace strategy. He made a note that there may be a need for a UK lower airspace strategy but noted that this was not SOU’s role and that it would not be a design principle.

A representative of Lasham Gliding Society – agreed, stating that it was a CAA responsibility. He noted that redesigning airspace required a lower airspace strategy. He queried whether, if a lower airspace strategy did exist, TE1 could provide this.

TE1 – agreed to do this.

A representative of Lasham Gliding Society – added, furthermore, that the CAA need to produce this lower-airspace strategy and that one of the reasons for this major redesign is that lower airspace has developed as a patchwork quilt.

A representative of Hampshire County Council – asked whether SOU would be brave and change “should” and “minimise” in environmental principles to “will” and “negate”, to ensure that there will be no total environmental impact.

A representative of Southampton Common and Parks Protection Society – pointed out that he agreed, and that the wording of “minimise” indicated that the ACP would cause a net increase.

A representative of Hampshire County Council – added that the principles need to refer to zero impact on the environment.

A representative of Southampton Common and Parks Protection Society – argued that there should be incentives in the principles to ensure that airlines have no net increases in noise and emissions.

A representative of Hampshire County Council – noted that TAG Farnborough is carbon-neutral as of 2018 due to its massive offsetting programme, noting that invest in LEDs, solar panels, tree planting across Hampshire. She asked whether SOU does any carbon offsetting and indicated that this is something that they will be looking at in its applications.

A representative of Hampshire County Council – added that “should” and “minimise” are woolly words and that you need to be more aspirational in the principles.

TE1 – stated that any carbon neutrality commitment would relate to the airport as a whole, not the ACP.

A representative of Hampshire County Council – stated that SOU should be more aspirational in its approach and should take a serious view of carbon neutrality.

A representative of Eastleigh Borough Council – argued that the biggest issue which needs strengthening in the principles is that regarding environment and air quality.

A representative of Eastleigh Borough Council – added that the final draft principle regarding noise and operating hours must not change, noting that SOU had never requested an extension of its operating hours; that its masterplan did not include this; and that this would not be approved by the local community and authorities anyway, regardless of any design principles included. He stated that this was extremely key to the local community’s acceptance of the airport.

TE1 – confirmed that this had been highlighted by the previous group, but that it is a planning issue, rather than an ACP issue.

A representative of Dorset Gliding Club – argued that, on safety, “should avoid bottlenecks” should read “must”.

A representative of NATS – queried whether use of “must” is too much of a solution rather than a principle.

TE1 – stated that “must” was acceptable within a principle.

A representative of the Wickham Society – suggested that you could remove “must”, “shall”, and “should” from all draft design principle statements.

A representative of Dorset Gliding Club – also stated that a principle should include a reduction in controlled airspace, not simply that SOU should avoid expanding its controlled airspace. She also asked whether the noise principle relating to sharing of the burden related to the expansion of route numbers, or whether this related to sharing with existing routes.

TE1 – noted that communities in general were keen for burden to be shared, and explained that the principle instead related to the sharing of burden within routes which are developed.

A representative of CPRE – stated that he was surprised to hear that local communities supported burden-sharing and queried how this conclusion had been reached. He asked whether SOU had done a consultation to find out whether people wanted to share noise.

TE1 – indicated that SOU have undertaken a public focus group in addition to these workshops which found that while noise is not terribly important for them in general, it does matter when it is over them.

TE1 – added that in many ACPs we are finding that people say it is not fair to concentrate. He asked a representative of CPRE whether he takes a different view, adding that Air Navigation Guidance obliged SOU to consider multiple routes.

A representative of CPRE – noted that as far as SOU is concerned, most of the people concerned came to live there knowing there was an airport, whereas most people not currently affected came to live there because there was no noise. He argued that what Trax say regarding sharing noise is controversial and that SOU should avoid making assumptions.

TE1 – asked whether, as a group, they feel strongly about noise sharing and/or a fair and equitable share of traffic.

A representative of the Southampton Common and Parks Protection Society – raised what he called a related point regarding technology to facilitate aircraft climb gradients. He noted that while this would deliver continuous ascents, rather than stepped ascents, this would change the pitch of noise.

TE1 – added that continuous climb would produce less noise on the whole, and that would allow planes to climb higher, faster. However, he explained, if planes climbed faster, sooner, it can increase noise closer to the airport, to the benefit of those farther away from the airport.

A representative of the Southampton Common and Parks Protection Society – observed that this would lead to more noise near where he lives. He then queried whether more aircraft would mean more noise, and whether SOU would also be required to demonstrate mitigation for newly impacted individuals too.

TE1 – provided an explanation of the policy relating to this. He noted that sponsors were not able to increase the effect on those already deemed “significantly affected”.

A representative of the Southampton Common and Parks Protection Society – repeated that if planes use a steeper climb, he will be more significantly affected.

TE1 – suggested that it may be better for the principles to refer to continuous climb and descent.

A representative of Lasham Gliding Society – argued that all of the points behind this ACP should be underpinned by an approach that it is data-based and evidence-based, and argued that all data is published, and that all methodologies should be rigorous with scientific methodologies which are helpful and clear to communities. He suggested an overarching principle for the whole ACP that the process should be data-based, evidence-based, with publicly available data, and using scientific methodologies. He added that all methodologies need to be scientific – for example, on safety, there need to be profiles.

A representative of Dorset Gliding Club – argued that this data should also be made public as early as possible.

TE1 – noted the drawback of the CAP1616 process was that we have to engage and develop options before options had been assessed.

A representative of Lasham Gliding Society – stated that evidence should come first.

A representative of CPRE – agreed, stating that options were being developed before evidence and that this was the wrong way round.

A representative of Lasham Gliding Society – repeated that data needs to come first.

A representative of CPRE – agreed that Trax are making assumptions as you go through this.

TE1 – stated that this was the CAP1616 policy to develop design principles before any design or analysis is performed.

A representative of Lasham Gliding Society – added that you cannot put together options before you do the analysis.

A representative of Wickham Society – asked whether, when Trax produce options, these will be based on assumptions. Or will you declare these.

TE1 – stated that Trax will design a comprehensive list of options to address as many principles as possible.

A representative of Lasham Gliding Society – stated that this is why rigorous research must be a principle.

TE1 – explained that options would all necessarily be supported by evidence and will be considered against quantitative and qualitative tests with methodology agreed with the CAA and published online. He noted that the environmental team at SOU will have to produce data and methodology.

A representative of SOU – clarified that SOU will not produce full analyses of every single option, this will be done when we have a shortlist – it would be impractical to do so before a shortlist. She added that all shortlisted options would be environmentally assessed, and that environmental consultants had already been instructed for this ACP.

A representative of Lasham Gliding Society – stated that it nonetheless needs to be published, so that stakeholders could see how conclusions had been reached.

TE1 – confirmed that this would be the case since everything submitted to the CAA was made public on the portal. He added that Trax will come back to this group with all options developed to ask for feedback ahead of analysis.

A representative of Lasham Gliding Society – suggested that the method should be to gather data on all GA movements and say, as a result of this assessment, these are the options. All 6 fields lend themselves to a scientific analysis not a matter of judgement. He stressed that without access to the data, stakeholders would be unable to provide comment. He stated that options should be supported by hard data, not by judgement, and that this was what he was encouraging.

TE1 – confirmed that all data and methodology would indeed be published on the CAA Portal.

A representative of Dorset Gliding Club – interjected that what we're talking about here is the baseline of data on which all analysis and comments can be hung. He stated that there was a lack of analysis at the current stage and so it is a fairly pointless process.

A representative of NATS – provided clarification of the CAP1616 process, outlining that the current stage was 1B – which is a discussion of ideas and that Stage 2 is about the development of ideas, and that evidence would be produced and provided later in the process. He explained his role in the process, including meeting with Southampton and Bournemouth stakeholders. He noted that 1B was far from the final stage of the process, and that members of the public would be consulted within Stage 3. TE1 stated his belief that attendees had been requesting for the baseline to be developed earlier in the process and stated SOU's position that the baseline was required at a certain stage in the process.

TE1 – added that the process of articulation is at Stage 2A and Stage 2B.

A representative of Eastleigh Borough Council – noted TE1's use of the word "consultation", and gave an example of where consultation had not been properly done. She asked when we pass the point where something is positive – and wanted to know that our feedback will be taken into account. He did not want design principles to be viewed as the final word here.

A representative of NATS – noted that the CAA had failed two airports for not consulting sufficiently and noted that the old process – called CAP725 – was less clear and transparent as it did not show all the meetings we've held.

A representative of SOU – noted that when SOU do consult we will be consulting on a range of options – we will show you our preference and how we have assessed them.

A representative of NATS – noted that all engagement is logged, and pointed out the engagement facilitators taking notes.

A representative of CPRE – noted that if stakeholders are faced with a premise, they disagree with they should challenge them. CAA need to know if they are challenging them.

TE1 – noted that in that case SOU would need to say whether or not a proposed principle had been included and would need to justify if it had been rejected.

A representative of Wickham Society – queried the meaning of "greater access" in the draft principles on airspace. She asked whether this line needs to be more specific about who greater access is being granted to.

TE1 – clarified that this related to access to controlled airspace for GA.

A representative of Wickham Society – queried whether drones would be included.

TE1 – confirmed that this would probably be the case.

A representative of Wickham Society – stated her belief that drones were a threat and queried how this would be dealt with. She stated her concern with the statement and suggested that it was too broad.

TE1 – stated his belief that this relates to general aviation, but that he was unsure whether this included drones.

TE1 – summarised the feedback he had taken from the session as being the following:

- all methodology and data should be made public;
- assessments to be evidence based;

- stakeholders want to see methodology and data used;
- baselines should be made clearer earlier in the process than CAP1616 mandates;
- SOU should take into account in “in combination effects”, and with BOH and the MOD in particular;
- There needs to be a Lower Airspace Strategy;
- SOU should be more ambitious on the environment principles: should not ‘minimise’ but deliver no net impact;
- There should be no removal of night flight restrictions, but that there doesn’t need to be a design principle on this;
- Remove all “shoulds” and “shalls” from design principles;
- Looking to reduce bottlenecks rather than avoid introducing additional ones;
- Define in airspace who greater access applies to;

TE1 – then read out the amendments to the design principles proposed by the group at the first Follow-Up Workshop on 19th July.

TE1 – closed the workshop, noting that all principles and notes would be brought together and made available by the end of August.

A representative of BECG – outlined the ways in which attendees could provide feedback.

A representative of Southampton Common and Parks Protection Society – requested that all attendees to be notified when the runway extension DCO was submitted.

A representative of Eastleigh Borough Council – noted that the process would be as standard for the application.

A representative of BECG – stated that attendees would indeed be notified when the DCO was submitted, and stated for clarity that this was separate from the ACP.

The agreed amendments to design principles based on this workshop were as follows:

Amended Principles:

- Additional: SOU’s airspace options to take into account in combination effects of neighbouring airports.
- Environment – ensure the airspace change has no net degradation in environmental performance.
- Delete night flight restrictions
- ALL principles remove shalls and should.
- Safety 2 – avoid introducing additional complexity and reduce bottlenecks in both the network and Class G airspace.
- Airspace – should not increase the overall volume of controlled airspace. Where an increase is required, it should be accompanied by measures that offer greater access to general aviation and not increase segregation.

Glossary

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| <u>ACP</u> | Airspace Change Proposal / Process |
| <u>AGS</u> | AGS Airports Ltd |
| <u>ANSP</u> | Air Navigation Service Provider |
| <u>ATC</u> | Air Traffic Controller |
| <u>ATM</u> | Air Traffic Management |
| <u>ATZ</u> | Aerodrome Traffic Zone |
| <u>BOH</u> | Bournemouth Airport |
| <u>CA</u> | Civil Aviation |
| <u>CAA</u> | Civil Aviation Authority |
| <u>CTA</u> | Control Areas |
| <u>DME</u> | Distance Measuring Equipment |
| <u>EC</u> | Electronic Conspicuity |
| <u>GA</u> | General Aviation |
| <u>GBAS</u> | Ground Based Augmentation System |
| <u>GBN</u> | Ground Based Navigation |
| <u>GNSS</u> | Global Navigation Satellite System |
| <u>GPS</u> | Global Position System |
| <u>ILS/MLS</u> | Instrument/Microwave Landing System |
| <u>IOW</u> | Isle of Wight |
| <u>IRT</u> | Instrument Range Testing/Test(s) |
| <u>LARS</u> | Lower Airspace Radar Service |
| <u>MATZ</u> | Military Aerodrome Traffic Zone |
| <u>NATS</u> | National Air Traffic Services |
| <u>NAVAIDs</u> | Ground-based navigational aids |
| <u>NDB</u> | Non-Directional Beacon |
| <u>PBN</u> | Performance-based navigation |
| <u>SON</u> | Statement of Need |
| <u>SOU</u> | Southampton Airport |
| <u>UHF</u> | Ultra-High Frequency |
| <u>VFR/IFR</u> | Visual Flight Rules/Instrument Flight Rules |
| <u>VOR</u> | VHF (Very High Frequency) Omni-Directional Range (VOR) |