Glasgow Airport
Airspace Change Proposal
Appendix D – Stakeholder Feedback

Executive Summary

This document details the feedback that Glasgow Airport received from Stakeholders during the formal feedback period following the stakeholder briefing sessions. Comments made during the briefing sessions were also taken into account and can be found in the engagement report. Full details of the communications, including communication content, can be found in Appendix C. For a timeline of key engagement activity, please see the engagement report.

Table 1: All stakeholder feedback received after the briefing sessions, including email feedback which is outlined in the 'Do you have any other comments or feedback' column

Organisation	Are you satisfied that we have taken into account the Design Principles when developing our comprehensive list of route options?	Are there any further considerations that relate to the Design Principles which we have not taken into account?	What do you think about the initial illustrative Controlled Airspace volume?	Please outline what worked well in the engagement process and how Glasgow Airport can improve its engagement in the future?	Do you have any other comments or feedback?
West Dunbartonshire Council	No - There is no mention of how this will be informed by, or even utilise, UK and Scottish Government policy on Climate Change. Notably, how it will support the transition to net zero, improving buildings and plane technologies to have a much lower carbon/environmental impact, or even improve behaviours and operations to support a net zero future. - There needs to be much more detail on how the improvement of route optione, etc. will support a net zero future.	No	N/A	The engagement process was useful and of good quality. The language used, even when communication complex data, was clear and relatively easy to understand. However, the process needs to be tied up with how it is supporting environmental sustainability and imprved air transport to help reduce national air emissions.	No Response

BMSCO	Yes	No	No Response	No Response	My organisation was represented at the most recent consultation by my colleague Dave Young, Chief Pilot of the Police Scotland Air Support Unit, so I will leave the responses to the two questions above to him.
Bearsden East Community Council	No All the following points are repeated in email to Ronald Leitch dated 06/01/2022 Offset Departures and Variation of Track are both items that have been been introduced for the first time in the briefing given in December 2021, Neither is mentioned in the discussions leading up to the formation of the design principles that GLA have proposed or in the design principles themselves, These new items have the potential to defeat DP 7	Yes DP 6 & DP 13 are at risk from all the 05 departure examples which have low turns which will adversely affect the rate of climb causing increased noise pollution below 7000ft. It is difficult to quantify this noise pollution without GAL producing scaled maps supplied including details of buildings which would be under any proposed flightpath including an estimate of the height of the aircraft above ground level.	No Response	The engagement process cannot be described as working well. The two new items should be discussed as should the omision of the present 05 departure route. Why has this safe and dependable route been abandoned? The briefing procedure was very remote and difficult to understand and follow. If a proper meeting impossible in the circumstances ZOOM would be a lot better and more interactive.	Please send maps for all 05 departures which show the ground detail under proposed flightpaths. Please also show the scale and height above ground when turns take place. Please send this information as soon as possible.

	and must be discussed to eliminate this possibility	The design principles must take into account the advice from government that all schools, houses, offices etc must be ventilated to avoid the present pandemic and any other aerosol virus infection which follows. This ventilation process will cause all aiiempts to control penetration of aircraft noise pollution to fail. Flightpath design must therefor more considerate when new flightpaths are planned which introduce new or more noise pollution.			
Lanarkshire & Lothian Soaring Club	Yes	No	For paragliding and hang gliding the proposed changes represent a considerable improvement. It will enable flying to take place on the Inverclyde hills at	We are happy that we are being involved in the process. No criticism of the way the engagement process has been handled.	No

			Greenock and also allow continued flying at Fairlie without the need for a Letter of Agreement. It will also allow extra altitude at several well used flying sites in the Fintry hills. The increased altitude now available east of Glasgow opens up possibilities for much longer possibly record breaking North South cross country flights which have been almost impossible with the existing arrangements.		
Drymen Community Council	Yes	No	No Response	The online presentations were very informative. The associated graphics assisted the non-technically minded to understand what was being proposed. I think that the engagement approach was fit for purpose. The slides help me to understand the proposed changes, and gave me the information which I	No Response

				required to update my community.	
Visit Scotland	Yes	No	No Response	No Response	No Response
South Lanarkshire Council	Yes	No	No Response	No Response	The session clearly explained how the balance is made between noise impact and environment impact.
Emirates Airline	No All I have seen so far are route options considering noise avoidance, nothing with CDO, CCO, etc. As discussed at meeting no further work has been done as yet. The list of design principles is fine but they are not yet incorporated into design phase.	No	No Response	Appreciate it is early stages but the audience is too wide, think you need to hold separate meetings with say local communities and organisations general aviation commercial aviation	Cannot make further comment until we see more detailed plans. We would like to be involved in any future consultation process which may include the air space above Drymen and the Loch Lomond And Trossachs National Park.
Milngavie Community Council	No In support of MERA which represents approximately 25% of Milngavie population we wish to endorse their comments .Namely reduction in	Yes Noise levels should be undertaken at strategic points in Milngavie and made public	From the available MCC will not be adversley affected by the proposals except for Mearns Estate and Douglas Academy and these concerns are recorded	The presentation was fairly comprehensive,interestin g and effective albeit the forthcoming presentations on the 'nuts and bolts' of the proposals will be more interesting	No

	safety,increase in noise levels over the Mearns Eatate and Douglas Academy,potential increase of bird strikes and flying over quarries. The foregoing issues have a low chance of occuring but should be recognised in assessing design principles		in MERA submission which we endorse		
Light Aircraft Association (Individual 1)	No DP4 in the original listing from Sept 2019 included "effiicient access for other users" and this seems to have been lost or now being ignored at the expense of commercial airport users, though minimising conyrolled airspace remains. DP9 mentiones reducing infringements through reducing complexity but the current numbers of route options appear to go against that DP. (Reducing controlled airspace	Yes the presentations were "preliminary" and so achievment of considerations related to the DP's cannot at this stage be judged until the filtering / reduction process is underway. Of concern though is that even in the preliminary options a reduction in airspace seems to be low down the priorities.	as above the volume of airspace is ciurrently far too large for a single runway airport. It appears that the numbers of options may be expanding to fill the available volume and which, as above, its not posisble to judge until later in the process. Certainly suggestions we as a community have made, to reduce the volume, need to be acted upon, glide slope / climb out angles and possibly even more dynamic use of the airspace could	Voices other than commercial aviation need to be heard and to that end the airport are to be complimented ion holdiing the targetted consultation meeting held with general aviation. and which should be continued. We hope that appropriately detailed sessions will continue to be held in future. Sharing feedback between likeminded bodies such as general and commercial aviation by assist in convergence of views too.	As at earlier meetings we would politely refer the designers to the report by Lord Kirkhope which sets out the views of general aviation as regards controlled airspace in general and to which the LAA were a contributor.

	volume will reduce infringememnts)		potentially contribute to reduction in volume. The final volume will we believe rely also upon the determination of the upper airspace arrangements / letterboxes which need to be coordinated. We would add to this submission for inclusion in deliberations, reference to the collectiove GA community response late in 2021 and following the GA Consultation meeting.		
Killearn Community Council	Yes	No	No Response	Process is sound re consultation. We use zoom for all our meetings therefore zoom or teams is OK.	Just anxious to see the proposed routes and the increase in noise for our rural area.
Colquhoun Park Community Group	Yes	No	No Response	No Response	No Response

Environmental Protection Scotland	Yes	Yes Principle No 2. The end of the sentence should be amended to read 'meet the forecast post-COVID-19 demand for air transport.' There are many uncertainties around the recovery of air transport given the current state of the pandemic and it is difficult to agree with the prediction that it will return to around '24-25%' of 2019 levels. Principle No 7. should also refer to potential noise sensitive areas such as planned new areas of major housing developments. This would take into account plans for new communities that may arise as part of the Scottish Government's plans to build 100,000	No Response	In general the discussion and presentation was thoroughly comprehensive and there were good opportunities during this for questions.	No

		more homes in Scotland by 2040.			
British Gliding Association	It is too early to assess. The proof of the pudding will only be evident at a later stage when we will see eg. how well DP3 has influenced the options considered.	As laid out in our email of 21st November there are a number of issues which need to be explored and acted on in order to move toward toward an efficient airspace design which meets the needs of all users.	The illustrative volume is unacceptably large and fails any test of reasonableness in relation to existing airspace given advances in technology and aircraft performance. Enacting such airspace designs would result in the creation of volumes of CAS which demonstrably has not been used by CAT. Environmental factors should dictate a reduction in the need for CAS, not an increase.	The clarity of presentation, openness and willingness to engage with and listen to GA has been most welcome. More of the same please, with additional reasonableness reality checks to achieve a better benchmark of airspace efficiency.	Please refer to the content of our input of 21st November 2021 which was sent in the spirit of promoting the ongoing and necessary engagement with GA.

Mains Estate Residents' Association (MERA)	No a) Design Principle 1 (DP1) – MERA is not totally satisfied in relation to the approach to safety. MERA wishes to re-emphasise that the design process must consider the safety impacts in (i) areas of higher terrain, and (ii) areas likely to attract birds (Response to Consultation on Design Principles, MERA, October 2019). The consultation process must comply with the latest CAA guidance and the source UK Department of Transport, Air Navigation Guidance (2017), page 11, which states that: "the CAA should ensure that the aviation industry takes account of the elevation (height) of the specific surface level involved when developing its airspace design proposals. This is	Yes a) We still do not consider that the approach to date has addressed our safety concerns in relation to height of aircraft above the ground and bird strikes (Design Principal 1 (DP1)) (see Question 1 above). b) Also, in relation to Design Principle 1 (DP1), we believe that the design principles should also consider safety margins around opencast mineral workings/quarries in relation to explosions. Opencast quarries that use explosives represent hazards to aircraft in terms of overpressure shockwaves and flyrock. We would highlight that the	No Response	The presentations with slide shows works well, with the opportunity to ask questions. Providing a copy of the slides to refer to is very helpful.	We hope that our comments and feedback above are helpful in refining and evaluating the future design of the airspace.

	particularly the case when such proposals may affect airspace at an altitude lower than 7,000 feet (amsl) and in circumstances where the actual height of the land directly beneath may be hundreds of feet above sea level". These considerations are further detailed in the CAA guidance. Accordingly, in order to maintain safety margins, MERA believes that there should be a clear general presumption in the design principles that departure routes must not be moved over higher terrain in populated areas (e.g. the Mains Estate), where the actual height of the land is hundreds of feet above sea level, and significantly higher than the existing departure route. Furthermore, MERA	Douglasmuir Quarry, lies within the airport safeguarding area, and uses explosives for rock blasting. The quarry is also used by the Royal Navy Bomb Disposal Team for destroying old ordnance. This quarry was developed 1.36 miles from the current flight paths (see figure below). It is essential that adequate safety margins are retained within the new airspace design, around and above the Douglasmuir Quarry, so as not to endanger aircraft. We understand from the technical literature that flyrock can travel of the order 600m/2000-feet upwards, depending on the blast conditions. Given			

	has been of the consistent view (MERA, October 2019) that there should be a specific presumption in the design principals against moving departures over the populated higher terrain in Milngavie, as this will reduce the safety margin. We have also highlighted that in terms of airport safeguarding, there should also be a presumption against moving departure routes closer to sites likely to attract birds including mineral workings and refuse tips. The Civil Aviation Authority recognises that: “growth in the geese population, and especially the increase in non-migratory geese near urban centres, is causing considerable air safety concern” (Large Flocking Birds: An international conflict between	that the quarry is at a high elevation, the altitude of aircraft affected could be greater than 2000-feet. The pressure wave from the explosion could go further, depending on atmospheric conditions. If consideration is given to routing aircraft closer to the quarry, then a risk assessment would also presumably need to consider the possibility of explosions from the quarry inadvertently increasing the possibility of bird strikes, due to birds being steered into the path of oncoming aircraft. The likelihood of such an event would be low but the consequence could clearly be major.			

	Conservation and Air Safety, Safety Regulation Group, Civil Aviation Authority, 2002). The design principles should take cognisance of the risk from bird strikes. From a safety perspective, MERA would again highlight that the Mains Estate area of Milngavie is regularly overflown by flocks of geese. Together with the raised terrain, this may potentially increase the possibility of a bird strike. The geese also feed on the nearby fields, especially during the winter months. b) Design Principle 7 (DP7) - In relation to the approach to Noise Sensitive Areas (Glasgow Airspace Re-Design Presentation, Section 4, slide 33/144), we support Glasgow Airport's inclusion of designated gardens and designed landscapes in their design considerations. We	[Image - included in PDF submitted by email] Map of current flightpath showing 1.36 mile safety margin from Douglasmuir Quarry (map © Google Earth) c) We do not consider that the approach to date has yet fully considered the noise sensitive buildings and landscapes (Design Principal 7 (DP7)) (see Question 1 above). d) In relation to Design Principle 15 (DP15), MERA would highlight that the redesign process should also accord and be assessed against the published UK Department of Transport, Air Navigation Guidance (2017). This source document provides the guidance to the CAA on its			

	wish to highlight that the Mains Estate, including the adjacent Mains Plantation, are designated as a historic Garden and Designed Landscape in the East Dunbartonshire Local Development Plan (LDP, 2017) (see figure below). Accordingly, we would expect this protected landscape to be recorded in the Glasgow airspace redesign process and included in the Noise Sensitive Areas map (slide 33/144), together with the other noise sensitive areas; and subsequently considered in the design evaluation. [Image - included in PDF submitted by email] Map of Mains Estate and Mains Plantation - showing the area designated and protected as a Historic Garden and Designed Landscape	environmental objectives when carrying out its air navigation functions, and to the CAA and wider industry on airspace and noise management. As such, it underpins the CAA airspace modernisation strategy.			

	(HE22) in the East Dunbartonshire Local Development Plan (2017) c) Design Principle 7 (DP7) - In relation to noise sensitive buildings we are again not content with the current approach. We have highlighted Douglas Academy as a noise sensitive building in our response to the Draft Design Principles (MERA, October 2019). Douglas Academy also lies within the designated historic garden and designed landscape of the Mains Estate. We require reassurance that Douglas Academy has been highlighted and will be considered in the design evaluation. Douglas Academy is of such importance because it incorporates Scotland's national music school. The location of the music school at Douglas				

	Academy was deliberately chosen due to its' quiet semi-rural location. It would be counterproductive to now route air departure routes closer, or even over, the national music school. The music school was established in 1979 as a national Centre of Excellence for gifted young musicians. Students are funded by local authorities and come from throughout Scotland, and further afield, to study here. Our opinion is supported by the latest CAA guidance and the source UK Department of Transport, Air Navigation Guidance (2017), page 24, which states that: "The CAA should also, where practicable, take into account the desirability of minimising noise impacts for noise sensitive buildings of which the CAA is aware, such as hospitals, schools				

	and places of religious worship.”				

easyJet	No The ACP is a once in a generation event and as we look to the future, safety and sustainability has to be in the very DNA of the project as the design principles reflect. The present flight procedures haven't materially changed in decades and the current proposal offers opportunity to make significant improvements for the next decades particularly when coupled with the abilities of modern high performance aircraft. The current proposals aren't ambitious enough to fully meet DP2 / DP12 where the overall ambitions should strive for these significant sustainability gains particularly post COP26. The majority of route options shown, increase the track mileage flown	Yes The ethos of the applicable design principles should be such that the proposed options should enhance the sustainability measures to be better than that actually flown today not just compared to what is currently published and rarely flown in their entirety.	N/A	During the COVID background the multiple presentations were well received however with the substantial amount of information and design options it may have been useful to have provided the information pack in advance of the meeting such that the meeting itself could have held more interaction and queries raised rather than going in cold to the meeting to later digest the information as the dialogue may have had relevance for other attendees likewise. There would also be merit for the technical end users, ATC, Airlines etc to have further stakeholder meetings as mixed audience presentation can present challenges of striking the balance of getting the relevant level of technical information across given nonaviation	No Response

	compared to current published procedures and when this is further compared with the current actual tracks flown, which often have tactically efficient routings, this represents a potential degradation in sustainability measures. To put this in context when the arrivals are compared to current procedures, aircraft will have increased track mileage flown in a less efficient approach configuration, (Arrivals RWY05 - Options A,B,C,D RWY23 - A, B, E, F). When the Departure options are compared likewise, the majority of designs for RWY05 show the largest volume of traffic (NORBO departures) turning to the North of the city when the intended routing is to the South. As the actual tracks currently flown show, a			stakeholders are also present. There is merit in combined sessions however further breakout stakeholder meetings may be beneficial.	

	high proportion of traffic is presently tactically turned to the South avoiding unnecessary track mileage and offering substantial environmental savings. Likewise for RWY23 NORBO departures, aircraft utilising the shared departure splits will have to fuel plan for the longest of the 2 options which do not benefit from track mileage reduction compared to current tracks flown. With the ethos of the design principles the proposed options should enhance the sustainability measures to be better than that actually flown today not just what is currently published and rarely flown in their entirety. From a safety perspective (Design Principle 1), there would also have to be a further detailed review of the options showing				

	NORBO departures sharing split routings during similar timeframes to mitigate against the wrong departure being followed.				
Light Aircraft Association (Individual 2)	No principle 1 not met- expansion of controlled airspace to the NE will cause further GA congestion on class G principle 2 not met- GA movements in central Scotland will be less efficient. The demand	Yes If principle 13 is adhered to, the need for low altitude controlled airspace to ensure safety will diminish greatly. Reducing the ATC workload by reducing controlled airspace	The Lord Kirkhope inquiry reports that Glasgow CTR size is 460 nm^2which makes it the largest in the UK and 37% larger than Heathrow while only having a single runway and 17% of the movements. Reduction of the extent of the CTR	I welcome the engagement with GA in this process and the opportunity to feedback on behalf of local LAA members operating from Cumbernauld, Strathaven, Prestwick, Glasgow and multiple private airstrips in the Strathclyde area.	With increasing availability of electronic conspicuity and the ability to see and avoid being increasingly available for both manned and unmanned flight an inverted wedding cake shaped controlled

	forecast is historic and inappropriate. principle 3 is not met- the apparent intended airspace does not release airspace not required for single runway operation. There are areas of controlled airspace where two way VHF contact is not possible and which cannot be used by IFR traffic due to the topography. principle 7 is not met as areas not currently affected by noise will be, including the Regional and National parks	will increase safety particularly with the increasing use of electronic conspicuity in GA aircraft.	would increase GA safety by removing choke points to the NE and SW of the CTR and reducing ATC workload.	As design of airspace defines the function of ATC I would expect the active participation of the air traffic provider towards optimising the service given to all types of user of the CTR and surrounding airspace	airspace would seem to become more feasible.

NATS	No By selecting 'no' we wish to stress that in general we believe that the all the DP have been taken into account however, in considering the options presented during the webinar when applied to DP 10, we provide clarification which has been articulated as individualised feedback on each RWY 23 & 05 option presented as detailed in the next question response.	Yes Arrival Options: All arrival options as presented should be compatible with the NERL Network as the direct impact focuses on the based ground stakeholders and is generally below 4000ft. The location of PBN holds within the NERL ACP should align to all of the proposed PBN arrivals options. However, the application of a systemised Point Merge/Trombone structure is likely to be inconsistent with the use of tactical ATC /partial ATC tactical usage. Departure Options General: The majority of departure options appear to be amendments to the	This will need to be considered within the overall context of the preferred options.	NATS welcomes the constructive and open dialogue and feedback provided at recent collaborative airspace design workshops . These have shown the desire to introduce an optimal, modernised airspace solution which will benefit all stakeholders taking into account Glasgow's original Statement of Need and Design Principles. Ongoing workshops are planned including feedback sessions from PC SPACE visualisation simulations which will enable an iterative development leading into future Real Time Simulation.	NATS considers that the presentations delivered through the Webinar sessions to be in significant detail for this stage of the airspace change process and we observe that although such detail aids us to be able to provide more comprehensive feedback, potentially the level of detail presented could possibly be perceived by other stakeholders as a more definitive solution at this stage. In addition, there is the possibility that the level of detail at this stage could be construed as a placing a constraint on future NERL /Edinburgh options with limited flexibility to amend at a later stage which may only be fully understood through our ongoing stakeholder engagement

		current SID with greater variations generally below 4000ft, with the biggest modification being the various permutations on the NORBO SID. However, there is no indication on whether they are considered for all departures (i.e. jet /non jet) as currently exists with the TLA /LUSIV/TRN SID. Options for time based SIDs appear to accommodate the noise dispersion below 4-5000ft. No indication of NPR's but anticipate this will be developed from ongoing engagement. To mitigate flight planning and the associated safety risks , It would be essential to link to a common SID end point for each associated departure for both 05 & 23			relationship using technical feedback gained from airspace simulation activities.

		departure. Rwy 23 Deps Option A: NORBO – It is anticipated these are based on 1 min departure splits? Left /Right turn out option would need to be based on exit codes /UK destination with the left option to facilitate TRN/SW based traffic and be classed a separate SIDs. Actual breakdown and usage would need to assessed to ensure appropriate runway movement rate could be maintained without overloading sectors. The expectation is these would be available H24? Systemisation of the arrivals would help with this option. The offset arrangement at lower levels should not impact the network.			

		The TLA SIDs are only applicable to non jets and in the current airspace structure are infrequent, therefore should they be retained ? Or combined with LUSIV or amalgamated into NORBO LTO with appropriate route connectivity. Northbound SIDS via CLYDE/FOYLE and PTH appear to be similar to todays SIDs but with more variation at lower levels , however, these still would need to link to existing ATS route structures L602/N560 & P600 with cognisance of any proposed new arrivals that may route north instead of LANAK including the possibility of a GOW overhead hold arrangement. The PTH SID could be			

		utilised with appropriate ATS route connection to the proposed Firth of Forth departure structure. ROBBO SID - as these are predominantly for FIR based traffic is there merit in retaining this as a PBN SID for limited traffic numbers? As above cognisance of any proposed new arrivals that may route north to STIRA or GOW overhead instead of LANAK will need further detailed feedback through visualisation. Rwy 23 Deps Option B: NATS would anticipate the required runway movement rate may be limited by this option as the NORBO traffic would be following the same initial departure route hence			

		minimum 2 min departures required? Traffic would then split onto appropriate routes based on UK exit /destination as above. Similar comments for TLA /LUSIV as above Option A. Northbound SIDs as above. Rwy 23 Deps Option C: Whilst this would satisfy departure splits during peak hours , this variation of the NORBO split based on time of day is likely to have greater FPL and system adaption impacts in addition to onward route connectivity impacts and would need further wider impact assessment . These would need to be classed as different SIDs but would still be required to join the			

		route network. Rwy 23 Deps Option D: As above, whilst this would satisfy departure splits during peak hours , this variation of the NORBO split based on time of day is likely to have greater FPL and system adaption impacts in addition to onward route connectivity impacts and would need further wider impact assessment. Similar comments for TLA /LUSIV as above Option A. Northbound SIDs as above. Rwy 23 Deps Option E: This NORBO option is preferable as it introduces shorter track mileage , potentially enables 1minute departure			

		splits and removes the potential problems associated with FPL and adaptation based on time of day . They are therefore easier to adapt into a network without the above variations in Options C & D. Similar comments for TLA /LUSIV as above Option A. Northbound SIDs as above. Rwy 05 Deps Option A: This is similar to existing SID structure with the variation at lower levels (<4000ft) , majority of departures focussed on NORBO . No indication of whether the LUSIV SID could be applied to jet traffic, if this was the case improved departure splits and runway utilisation could be effected.			

		Low frequency of traffic on TLA would question relevance and whether this is required. PTH style SID would be compatible with FoF proposal. Introduction of FOYLE/LOMON would need to assessed in conjunction with alternate arrivals options (EGPF overhead). Rwy 05 Deps Option B: These proposals are similar to the Option A from a NERL Network perspective above. Rwy 05 Deps Option C: As above but reduced opportunity for improved departure splits as traffic follows same initial departure. Rwy 05 Deps Option D: Comments as Option C.			

		Rwy 05 Deps Option E: No issues with the northbound SIDs . The TLA style SID would have a detrimental impact on the interaction with EGPH traffic and is likely to add complexity to the TMA. The NORBO RTO would need to cover the majority of traffic to the south /south west. Rwy 05 Deps Option F: No issues with the northbound SIDs . The TLA style SID would have a detrimental impact on the interaction with EGPH traffic and is likely to add complexity to the TMA The NORBO left/right option whilst satisfying potential noise would lead to FPL and adaptation			

		complexities . However, the utilisation of both options based on destination would lead to improved runway utilisation and aligns with network proposals. Rwy 05 Deps Option G: No issues with the northbound SIDs The TLA style SID follows a similar departure track to the RTO NORBO and actual use may be limited. NORBO traffic on a Left/ right principle at all times (as above) is preferred to the 2nd period only for RTO NORBO as the use of Period 1 & 2 options adds to overall FPL complexity , adaptation and route connectivity issues i.e. would still need to join to a common end			

		point . If an element of respite is required within the 2- 3000ft band, an alternate option joining the same SID end point could be considered.			
Helensburgh Community Council	Yes	No	No Response	Good inter-communication. Highly technical subject matter	None

				for the lay person and may require further explanation.	
Cumbernauld Airport	Yes	No	Whilst accepting the very early stage in your thinking, the methodology of optioning routes which appear to be different to other airports thinking has produced a greater volume of CAS than expected. I would refer you back to DPs 3, 9 & 13 and ask you, with particular reference to Cumbernauld Airport, not to migrate your airspace boundary any further eastwards in our vicinity and if possible retract it to the west in order to make our intended RNP IAP missed approach easier to fly.	The clarity of the graphics and clear presentation made the proposition easy to follow. However the background maps (Google Earth) were only of use to local people who know the geography.	As mentioned in the meeting I would appreciate it if Cumbernauld Airport's location could be marked on any presentation material.
East Dunbartonshire Council	Yes	No	No Response	No Response	No Response

Bearsden West Community Council and Canniesburn Place Proprietors' Association	No I do not consider that in particular it's 5,7,8,12&13 have been addressed and taken into account fully. My main concerns are the plans to increase the passenger volume going from 9.7 million in 2018 to forecast of 17 million in 2040. My concern here is the environmental impact regardless of any noise impact. What will this mean in terms of numbers of flights per day compared to the 2018 baseline and how will this breakdown in terms of daytime/nighttime flights and flight routes. I note that detailed noise impact modelling is not being done at this stage of the consultation and the current modelling is on simple flight modelling and calculations. More emphasis has been	Yes Noise and emission considerations should be evidence based rather than computer modelling. More testing on noise levels from flights banking before the 5 mile marker. Aircraft have to accelerate when banking and the result is more noise. Simply, this can be confirmed by any cockpit flight staff. The proposed routes and early offset departures will without doubt lead to increased noise levels at lower altitude. Due to its positioning so near built up and residential areas more consideration should be given to the whether it is appropriate to increase the levels of air freight another	No Response	The presentation was informative but too complex. It could have been simplified as many of the diagrams signified nothing for most viewers. I do not feel that there were adequate direct answers to the questions asked.	As stated above I do not consider that all aspects of the design Principle or DAP 1916 were adequately considered in enough and clear detail. The design process should include more evidence and factual based assumptions and presentations rather than conjectural and hypothetical computer based tests and modelling

	placed the impact on natural amenity areas than the effect on residential communities. The route options provide for a wider scale of deviation than at present from the current centre lines meaning that in essence aircraft could in effect deviate and fly virtually anywhere within the flight corridors. It takes no account of government and COP26 proposals and ambitions to reduce unnecessary internal flights and emissions in coming years, but represents a mandate for potentially doubling emission levels by 2040. It was mentioned during the presentation that the early offset departure routes would facilitate the time between take offs being reduced to one minute thereby allowing more	four fold at Glasgow Airport. Emphasis should be placed on utilising Prestwick airport more in all regards as it is located more sympathetically as far and noise levels are concerned. Their flightpaths are less over residential areas and more over open spaces and sea.			

	flights to take off particularly at peak times. This would suggest that the priority is more flights and not reduced flight times and emissions. The design principle does not sync and take account in full the DAP1916 Statement of Needs.				
Friends of the Earth Glasgow Group	No Response	No Response	No Response	I attended two meetings in Glasgow which I found interesting and well run.	I do not think I can add anything more to this consultation as I know so little about the subject. However, I am pleased to see the issues I felt strongly about (mitigating against climate change, noise for affected communities) are taken into account in the above list, and hope that they

					can be strongly incorporated into eventual actions, along with the realisation that flying must be reduced if climate targets are to be met. Thank you for inviting us to this consultation. Although I really feel that I can't contribute anything more of use, I would be interested to receive further information.
Glasgow City Council	Yes	No	No Response	No Response	From a Planning perspective in Glasgow City Council, our main concern in relation to the airport is the impact of tall structures in specific areas, and specific requirements for wind turbines, which might cause conflict with the radar systems used by the airport. The current consultation does not seem to cover this but I would assume that changing flight paths

					will change the consultation zones for NATS which apply to the planning authority. Are different technologies emerging which will avoid the need for restrictions on such structures?
Edinburgh Airport	Yes	No	No Response	I think the engagement process was well explained in advance and excellently informed. The design principles are similar to Edinburgh's, which is probably to be expected and you seem to have covered every eventuality. There are very difficult ideas here that need explanation and you have done this, I believe, to the CAP1616 requirements.	I would just like to say EAL wish you well in the CAP1616 process and will work alongside you to achieve the best flight paths for all stakeholders.
Loganair	Yes	No	No Response	No Response	No Response
British Helicopter Association (1)	Yes	No	No Response	No Response	The BHA has no objection to your proposal at this time.

British Helicopter Association (2)	No You should be looking to minimise the amount of controlled airspace required.	No	Unfortunately commercial helicopter flights are considered as part of GA. The majority of the BHA members as commercially rated pilots do not have a problem with asking to transit or or enter controlled airspace. As above the amount of controlled airspace applied for under this ACP should be kept to a minimum and where SVFR/VFR corridors/routes should be provided where possible like the Manchester Corridor or London Heli-lanes	2 and half hours was far too long.	No Response
General Aviation Association	No Please see the email from Ian Sweetland of 19:25 21Nov2021 which we co-signed.	Yes Please see the email from Ian Sweetland of 19:25 21Nov2021 which we co-signed.	Please see the email from Ian Sweetland of 19:25 21Nov2021 which we co-signed.	Please see the email from Ian Sweetland of 19:25 21Nov2021 which we co-signed.	Please see the email from Ian Sweetland of 19:25 21Nov2021 which we co-signed.

City of Glasgow College	Yes	No	No Response	I think the consultation and engagement process has been thought through and worked well. I have enjoyed the process, particularly at the start listening to the presentations and understanding how the business works.	GA could improve its engagement in the future with more profile amongst its stakeholders with a physical presence in the City Centre, possibly a shop... highlighting offers and taking the airport on a smaller scale to the public before they visit the airport. Also the introduction of an advanced loyalty scheme on top of existing schemes in place could work via the City Centre. If not something more permanent, then possibly pop-up shops either in St Enoch's and/or Buchanan Galleries would take the People's Airport to the People...just a thought. I am confident a lot of the public don't know how the airport actually works, so this would help in raising

					awareness... also with recruitment. Connections drive Commerce.
Jet2	Yes	No	No Response	The recorded presentation was of benefit for those who were unable to make the initial presentation. Consider (for AOC holders) a direct meeting or face-to-face, to ensure support from the outset.	None
Johnstone Community Council	Yes	No	No Response	From a Johnstone point of view we acknowledge the benefits having the airport on our doorstep brings both in terms of travel but also the amount of work it brings to the town both directly and indirectly. Our main concern is would the proposed	No Response

				changes bring more flights over the town itself. If the answer is yes the concerns would be the increase in air pollution and of course an increase in noise. The affect on air quality is a concern given the growing concern aeroplanes have on our environment. What a difference in noise there was in the town during the pandemic. In Johnstone I suppose we are well used to the noise but certainly our quality of life was greatly improved when little or no flights went over the town . No one would suggest banning all flights but there has to be a balance struck between noise and the impact it has on the people who live close to the flight path . However as stated before we recognise the many	

				benefits of being close to a major airport .	
MOD DAATM	Yes	No	Though not General Aviation, the MOD would like to be engaged as an airspace user that might be affected by changes to controlled airspace. From the linked ppt about development of the initial illustrative CAS, I cannot see what the illustrative volume is.	Unfortunately, we were not invited to the stakeholder engagement session for Stage 2 (or the invitation did not get to the correct department). Please do include the MOD in future engagement using DAATM as the conduit (DAATM-AirspaceConsultation@mod.gov.uk).	It has been helpful that you have all of your resources linked and explained in one place on the website.
Inverclyde Council	Yes	No	During engagement, the information was clearly presented and understandable to those outwith the aviation community. Overall, I found the process proportionate and appropriate.	No Response	No

North Ayrshire Council	Yes	No	Clear and concise supporting documents and good presentation at the online event. The methodology seems sound and with the improvements in aircraft and the change of wind direction that can bring regular flight path changes. The next phase will reveal more detail of the flight paths and heights of ascent and descents at which time something might be of concern, but not yet.	No Response	Local Members commented that previously most air traffic caused little nuisance apart from the large Russian plane which made lots of noise on Sunday mornings but hasn't been over for a while and the big Emirates which seemed to be a lot lower and noisier than 7000 feet. The other issue is when they are circling they can be very close and right over the towns. Glasgow Airport has a fund for communities, but the Garnock Valley is excluded. Perhaps you could look at including Garnock Valley in community benefits because the aircraft do fly low over the valley both out and inbound to Glasgow.
GATCO	Yes	No	The engagement and documentation was	No Response	Please ensure that the efficiency of the airspace and PBN

			extremely thorough and well thought out		structure is not lost. If Air Traffic Controllers are involved throughout the process this will allow ATCO feedback on this topic and will enable to airport to be efficient when the demand increases. It would be a shame if the PBN structure was so rigid that the airport is no longer efficient.
Universities of Glasgow and Strathclyde Air Squadron (1)	Yes	No	I think that the initial plan looks quite restrictive to the GA community. Obviously depending on what class of control each section falls into, but from what I can gather you would be forcing GA further away from the field in order to climb to significant altitude. This would greatly restrict our operations as we normally carry out our stalling, aerobatic and spinning exercises in the area of flat	No Response	No Response

			land to the east of Loch Lomond towards Stirling. Pushing us further to the North puts us into an area of high ground where with minimum separation rules required for these exercises they would not be possible. Forcing us further to the North before climbs were authorised would also significantly increase the fuel and time burden spent in the transit.		
Universities of Glasgow and Strathclyde Air Squadron (2)	No I think Principle 3 is not being met as the proposals severely limit GA operations in what has been our Local Flying Area for over 50 years	Yes Principal 9 is neglected as the designs as seen force GA Traffic onto the West side of Loch Lomond or further North and will concentrate/bottleneck GA traffic there	I personally think it is too restrictive, but would need more detail on the Classification of airspaces involved. I was at the previous consultation process c.2017 where the move was to incorporate new routings but reduce controlled airspace. Why the change to a large grab of airspace to the North when relatively few	I came to this late so cannot comment on that.	GA traffic operating above 3500ft for stalling, spinning, aerobatics or to avoid cloud layers will be forced further north or west where the terrain in the event of a forced landing is less hospitable than in the Drymen Valley. There will be a time penalty in getting there which is less economical for any GA aircraft in terms of time and cost.

			commercial aircraft go there?		
Airspace for All Services Ltd	No Glasgow has enjoyed a large volume of airspace in the past. This has allowed pretty free vectoring throughout the CTR and a large number of SIDs to develop, with acknowledged low rates of utilisation. These historical routes feature highly in these potential designs and could give rise to a new CTR that is of a similar size to the present one, with some SIDs seeming to have low climb out rates. This is against the verbal assurance we were given that this ACP would be a clean sheet approach. I find this potentially contravenes DPs 3, 5 and 7.	Yes This ACP seems to be following the pattern of retaining what currently exists, rather than looking at a fresh design to meet actual needs. The design of SIDs (and resulting containment volumes) employed at Gatwick are a good example of how a volume of airspace that is less than half the size of Glasgow's is able to handle a flow of air traffic that is greater than twice that of Glasgow. This would free up more airspace to a lower classification (ideally Class G) and further reduce the load on ATC.	It is potentially going to be too big and will continue to restrict GA. Glasgow has already shown that reliance on ATCOs for tactical intervention has led to inefficient use of its airspace (fairly recently resulting in not only reduced access for GA but for commercial operators too). Perpetuation of a large volume of airspace will continue to encourage tactical vectoring. A properly designed, efficient volume of airspace (with well thought out SIDs - such as employed at LGW) would avoid this.	Good open discussion; however, that is worthless if verbal assurances are not kept.	

Prestwick Airport	Yes	No	No Response	Engagement via Teams works well in our view - and good platform to share documents efficiently on the screen Regular engagement going forward is to be encouraged Good luck to the GLA ACP Team with your ACP in the coming months and Glasgow Prestwick Airport is committed to supporting GLA in anyway we can	We met with members of the ACP Team and representatives from Glasgow Airport ATS week of 14th Feb 2022, which all parties found very beneficial and we have diared monthly meetings going forward to ensure and encourage good dialogue and engagement as this ACP moves forward via the various stages of CAP1616. The following feedback details the main topics we discussed during our meeting of 16th Feb 2022 and we include principally as an audit trail of the discussions that took place around our feedback below: Glasgow ACP feedback The main comments from operational ATCO's at Prestwick are: 1. Some versions of the proposed airspace appear to infringe

					Prestwick Airport CAS, and this is something that we would be uncomfortable with and have no appetite to have to have to undertake another ACP ourselves at this stage. However the discussions at our mtg of 16th Feb 2022 provided us assurance that the pictorials in the GLA Stakeholder Engagement documents were indicative only at this stage. 2. There appears to be little reference to how the airspace joins to other airspace, and risks causing bottleneck for flights between TMA airports if there is not a wider area where airspace abuts each other. This is particularly of interest to Prestwick ATC with reference to the current Buffer Zone arrangement, and for

					Prestwick arrivals from the north coordinated through Glasgow airspace towards left base for Runway 12. This could also require aircraft routing from the north to BAKAK for our RNP approach to Runway 12 to need to leave CAS. Equally it is not uncommon for Glasgow Controllers to coordinate aircraft through Prestwick airspace, particularly when operating inbound to Runway 05. If the airspace doesn't join up to Prestwick Airspace sufficiently then this option would disappear. These scenarios would increase track miles for some aircraft to both airfields. It is likely that similar issues exist with the boundary between Glasgow and Edinburgh. 3. Prestwick Centre and

					Edinburgh Airport are also undertaking ACP's. We encourage a joined up approach between all ATC Units and are keen to play our part in this significant body of work for the benefit of all parties. If Prestwick Centres proposal for a TRN to FYNER fillet of airspace happens, then this would require connectivity to both Prestwick and Glasgow airspace. 4. Within the table of how you plan to approach the ACP point 11 states that "Routes to/from Glasgow and Edinburgh airports should be procedurally deconflicted from the ground to a preferred level in coordination with NATS Prestwick." We would suggest that Prestwick inbound and outbound routes should

					also be factored in. 5. From our own ACP the SID were “truncated”. This is primarily to allow aircraft to reach termination point of the SID earlier so that they could get uncoordinated route changes or climbs earlier. The result for us is SID’s that have different termination points and link routes dependant on Runway in use, that means aircraft flight plans are Runway dependant and clearances are far more convoluted and get questioned by pilots regularly. An Automated clearance delivery system would reduce the burden of this, but I would suggest that there would still be an increase in verbal confirmation of clearances as a result.

					Eg. Our previously NGY 1L SID from Rwy 12 is now SUDBY IL, link route Z249, to OSMEG, and the previous NGY 1K SID from Rwy 30 is now LUCCO IK, link route Z248, to OSMEG. As they have different link route it is not sufficient to just change the SID for a different runway departure as the aircraft systems may revert to the filed link route if this is not also changed. Our ACP also nearly got pulled at the last minute because some of the operators had misinterpreted /mis inputted data into their systems, and some approaches / departure routes had to temporarily be withdrawn. Hopefully lessons have been learned from this, and your transition will be smoother. It was only with the excellent

					and timely support of the CAA Principal Inspector that we get these issues resolved very late in our ACP approvals process. 6. Whilst we appreciate that planning airspace on a minimum required basis is the recommended practice, from our experience it severely reduces the ATCO's options and increases workload. A slightly more generous piece of airspace allows for more use of tactical vectoring and allows for a "change of plan". We believe Prestwick Centre are looking to increase the size of the TMA and connecting Airspace. As less people are likely to object to Airspace that bit higher up it may be easier for them to get these approvals, but airspace relinquished is very difficult to reclaim.

					Good luck to the GLA ACP Team with your ACP in the coming months and Glasgow Prestwick Airport is committed to supporting GLA in anyway we can Prestwick Airport ATC

GAA British Gliding Association Gliding Scotland LAA West of Scotland Strut of the LAA (joint response submitted via email on 21/11/21)					Comments below are from some of the GA attendees at last weeks' GA briefing session for the Glasgow ACP. We appreciated the time taken to provide us with the briefing and thought it helpful to try to respond quickly, with our immediate thoughts, as we do appreciate that an ongoing conversation on these matters is likely to be more productive and efficient. 1 We appreciate the quality of the presentation and the openness of its delivery. 2 The interim possible CAS designs are however quite unacceptable in that they increase CAS when (given technical and performance improvements) a

					substantial reduction should be possible. In particular the options of vectoring on take-off for capacity reasons with resultant airspace requirement seem unnecessary and could more easily solved for the likely limited periods by scheduling? Reference to airports which exhibit much greater airspace efficiency from a relatively low CAS volume would be useful; Frankfurt is an interesting example. 3 We understand the nature of the preliminary work to date and that our (and others) feedback can and will influence the next level of design. So rather than "starting a war" have given some thought as to why the methodology used has delivered such results.

					4 The large number of arrival and departure routes chosen appears to dictate complexity and additional CAS. Further simplification (as we understand to be your intention once the other factors are applied and) fitting to Glasgow's geography, (including the needs of GA in respect of the terrain clearance / cloud clearance requirements) should be possible rather than trying to design airspace to fit existing practices (or outdated technology / aircraft). 5 We need to understand how aircraft performance assumptions are distorting perceived requirements. If the emerging designs create CAS in positions which are not currently used by CAT then it is clear that the process being

					used is failing to produce realistic results. A constant reality check against actual performance is required, otherwise we will see the generation of large amounts of CAS which will never be used, exacerbating the existing problems of today. We recommend that the work done by James Bentham of NATS (attached) , or an updated version is used to sense check any emerging design work. 6 When we consider that the Glasgow Stornoway route (the old A1D) is invariably flown in Class G airspace for> 90% of its route we do not see the justification for creating CAS local to Glasgow for it. The same applies to several other routes. We therefore ask that the design is adapted to only show CAS for those

					routes which continue to their destinations inside CAS. 7 It goes without saying that radio and radar coverage must be considered as well at MSAs and any proposed CAS without proper coverage or below MSA deleted. Similarly the full advantages in accuracy from PBN arrivals and ultimately also over conventional ILS, in time, need to be realised / facilitated to the maximum possible extent. (See also item 11) 8 We appreciate that there are competing arguments about complexity versus size of CAS. Given the strategically critical nature of the airspace between GLA and EDI, the presence of water and hostile terrain coupled with typical

					weather, we would be happy to work with you to achieve an optimal position. 9 You will be aware of James Bentham's work in 2013, illustrating the potential for a N S gap in CAS between GLA and EDI 10nm wide to 5000ft (maximising the Cumbernauld gap) and the resulting overall reduction in airspace would reduce both controller and GA pilot workload and be a real factor in minimising infringements. 10 We understand that you have yet to speak with GLA ATC provider, and in the interests of efficiency offer our local knowledge to that discussion. 11 We would like to see the maximum possible approach gradient (3.2 degrees?) used for

					design and what consideration is being given to the longer term. 12 Can you let us know the classification of CAs that you have in mind? 13 It would be helpful if you would confirm that you will, as stated, be respecting the National and Regional Park locations. Despite the initial indications from your studies, appearing disappointingly to presently consume a larger area of CAs, we do understand that the result we have seen are preliminary and we confirm our willingness to work with you to get a solution which is efficient and works for all parties.

Aberdeen Airport (response submitted via email on 03/05/2022)					In response to the Glasgow Airport Stage 2A engagement to date, I can confirm that there appears to be no interdependencies or impact on Aberdeen Airport below 7000ft.