

ACP-2017-079  
SHETLAND SPACECENTRE LIMITED (SAXAVORD  
SPACEPORT) AIRSPACE CHANGE PROPOSAL  
CAP1616 STAGE 3 (“CONSULT”)  
STAKEHOLDER CONSULTATION REPORT



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## 1. Introduction.

1.1. Shetland Space Centre Limited (trading and hereinafter referred to as “SaxaVord Spaceport” or “SaxaVord”) seeks to conduct vertical launch operations for orbital and sub-orbital activities from SaxaVord Spaceport on Lamba Ness, Unst. A suitable airspace reservation of defined dimensions is required to ensure the safety of other airspace users from SaxaVord launch activities and to ensure the safety of SaxaVord launch activities from other airspace users. The proposed airspace reservation would be activated for the minimum specified periods necessary to support nominated launch operations and would extend from surface (SFC) to unlimited (UNLTD).

1.2. As part of the CAP1616 Stage 1 process, SaxaVord considered and engaged relevant stakeholders to discuss the outline of the proposal and establish and share the proposed airspace design principles (DPs).

1.3. At Stage 2A of the CAP1616 process SaxaVord developed the design options for the airspace change and tested them with Stakeholders. Subsequently, at Stage 2B, SaxaVord carried out an options appraisal for the designs against requirements set by the CAA in an iterative approach. SaxaVord successfully completed the Stage 2 Gateway on 7 December 2022.

1.4. At Stage 3 of the ACP process, SaxaVord consulted aviation and non-aviation stakeholders to identify, discuss and, where necessary, mitigate any subsequent impact(s) that activation of the proposed airspace design might have on stakeholders and their respective activities and operations.

## 2. Purpose.

2.1. The purpose of this report is to demonstrate that SaxaVord has carried out a fair, transparent and comprehensive review and categorisation of the Stage 3 stakeholder consultation responses received.

2.2. The overarching principle(s) of SaxaVord’s consultation activity with stakeholders sought to address positive and potentially negative impacts on stakeholders (and their respective operations and activities) by providing sufficient source materials and commentary to enable informed objective responses to be received that would inform SaxaVord’s airspace design.

2.3. SaxaVord’s approach to its Stage 3 consultation activities was set out in its [Stage Consultation Strategy](#) document.

## 3. CAP1616 Stage 3 “Consult” Objectives.

3.1. The overriding aim is to ensure that anyone (or organisation) who might be impacted by the proposed airspace change can see and understand what is being proposed and respond in the knowledge that the CAA is holding the change sponsor to account against the requirement to facilitate a meaningful consultation.

3.2. The objective of the ACP-2017-079’s consultation process was to consult the application’s stakeholders (aviation and non-aviation) on the potential impact(s) of the proposed airspace design on their respective operations and activities.

3.3. At Step 3C, SaxaVord implemented its consultation strategy and launched the consultation period on 18 Apr 23, which lasted for 8 weeks. The consultation period concluded on Mon 12 Jun 23.

3.4. At Step 3D, SaxaVord consultation responses are collated, reviewed and categorised.

## 4. Audience - the Stakeholders.

4.1. The list of the Application’s stakeholders is provided at Appendix 1. For each stakeholder, a primary point of contact (POC) was established and, where possible, this included a name and email

address, as a minimum. SaxaVord acknowledges that that “seldom-heard groups”, by their very nature, are difficult to identify and reach - see Section 5, below.

## 5. Consultation Approach.

5.1. *Consultation Strategy and Full Options Appraisal.* At Stage 3, SaxaVord’s aim was to ensure that the Application’s stakeholders could participate fully in the consultation activity. This approach was articulated clearly in SaxaVord’s Stage 3 [Consultation Strategy document](#). SaxaVord’s [Full Options Appraisal](#) set out the evolution of the proposed design and the rationale for the proposed design to be consulted upon.

5.2. *Stakeholder Consultation Materials.* SaxaVord produced a common set of [consultation materials](#) for all stakeholders and made the materials available on the ACP-2017-079 portal and through the Citizen Space platform. In the consultation materials, stakeholders were reminded that ACP-2017-079’s Stage 3 consultation process pertained solely to the proposed airspace design.

5.3. *Citizen Space Platform and Online Survey Questionnaire.* The main consultation route was through the Citizen Space platform and the corresponding survey questionnaire therein. Email, written, website and social media correspondence directed stakeholders to the questionnaire and related materials on Citizen Space. Copies of SaxaVord’s introductory and reminder emails, website news update and information flyer for all households on the island of Unst are provided at Appendices 2, 3 and 4, respectively.

5.4. *Print Versions.* The availability of print versions of all of the consultation materials, supporting documentation and questionnaire was highlighted on the SaxaVord website, social media, local radio and print media and leaflets distributed to all Unst households.

5.5. *Virtual Meetings and ad hoc Communications.* Stakeholders were offered the ability to request and conduct either virtual meetings or *ad hoc* communications with SaxaVord at Stage 3; no such requests were received.

5.6. *Consultation Responses.* Consultation responses (i.e. survey questionnaires) were requested through the Citizen Space platform.

a. *Online Questionnaire.* Responses received through the Citizen Space platform were managed by the platform and moderated by CAA, published and analysed with the other stakeholders’ responses.

b. *Offline (i.e. Printed) Questionnaire.* Where survey questionnaires were received through means other than the Citizen Space platform, SaxaVord added the responses to the platform so that they could be moderated by the CAA, published and analysed with the other stakeholders’ responses.

SaxaVord’s management, categorisation and analyses of stakeholder responses is discussed further at Section 6, below.

5.7. *Timescales.* SaxaVord commenced stakeholder consultation on Tue 18 Apr 23 and concluded on Mon 12 Jun 23.

## 6. Consultation Responses.

6.1. SaxaVord received 16 survey questionnaire responses through the Citizen Space platform, one handwritten survey response, which was uploaded to Citizen Space. One survey questionnaire was supplemented by an email from the respondent and 3 email responses were received from other stakeholder organisations.

6.2. The 17 Citizen Space platform questionnaire responses are provided at Appendix 5 and the 4 email responses are at Appendix 6.

6.3. SaxaVord collated, reviewed and categorised all responses.

## 7. Categorisation of Consultation Responses.

7.1. CAP1616 requires ACP sponsors to categorise consultation response data formally into those that might impact the proposed airspace design and, therefore, the final ACP submission and those that do not. At this point SaxaVord has sub-categorised responses that could impact on the ACP into those that would lead to changes to the overall submission and those that would not.

7.2. SaxaVord reviewed and analysed all the data received from the ACP-2017-079 Stage 3 consultation. Responses have been categorised using the following definitions:

a. *Response Might Impact Proposed Design and Final ACP Submission.* Any response that had the potential to impact the final submission was placed into this category. Each response is then further categorised into the following:

(1) Impacted. A proposal from a stakeholder that would impact the management of the airspace or alter the size, shape or construct of the final design that had not already been considered.

(2) Not Impacted. A proposal from a stakeholder that would impact the management of the airspace or alter the size, shape or construct of the final design but had already been considered, discounted or implemented at an earlier stage of this ACP.

b. *Response Does Not Impact Proposed Design and Final ACP Submission.* This category applied to all responses that did not impact on the proposed design and/or the final ACP submission.

7.3. In undertaking the categorisation of responses, SaxaVord sought to address any identified issues, either by mitigating the issue to the greatest extent possible (with an appropriate rationale), or by rejecting the issue on justifiable grounds.

7.4. SaxaVord were cognisant that responses that did not impact the final proposal might still contain valuable information, e.g. notification and communications requirements. Consequently, SaxaVord sought to capture and identify key themes from the consultation feedback even if they were contained in responses which did not impact the final proposal.

## 8. Stage 3 Stakeholder Survey Questionnaire Responses.

8.1. Stakeholders were reminded in the stakeholder materials that ACP-2017-079's Stage 3 consultation process pertained solely to the proposed airspace design. This overarching tenet was applied during the categorisation of stakeholder responses, especially those responses that centred around spaceport planning and/or local environmental concerns. SaxaVord's analysis was based on whether the response was directed solely to design of the proposed airspace and responses to Q8 and Q15.

8.2. *Question 8. "To what extent do you agree that the proposed permanent airspace design provides a sufficient airspace volume to protect launch operations from other airspace users and vice versa?"*

a. *"Strongly Agree", "Agree" and "Neutral".* Questionnaires that returned "Strongly Agree", "Agree" and "Neutral" responses to Question 8 were deemed to acknowledge that the airspace design did not need amendment. Comments associated with these responses were noted and continue to be addressed through ongoing discussions and the development of LOAs/MOUs between SaxaVord and the relevant parties.

b. *"Disagree" or "Strongly Disagree".* Questionnaires that offered either "Disagree" or "Strongly Disagree" to Question 8 were analysed more forensically to determine what the key drivers were

for such a response. Similarly, SaxaVord's analyses of these responses sought to understand and, where possible, consider potential aviation-related mitigations.

8.3. *Question 15. "In general terms, to what extent do you/does your organisation support the proposed permanent airspace design?"*

a. *Q15 - "Strongly Support", "Support" and "Neutral"*. Questionnaires that returned " Strongly Support", "Support" and "Neutral" to Question 15 were deemed to acknowledge their support (or lack of objection) to the proposal.

b. *Q15 - "Object" or "Strongly Object"*. Questionnaires that returned " Strongly Object" or "Object" to Question 15 were analysed more forensically to determine what the key drivers were for such a response. Similarly, SaxaVord's analyses of these responses sought to understand and, where possible, consider potential aviation-related mitigations.

8.4. *Response Data*. The categorised survey questionnaire responses, comments and SaxaVord's justifications/comments are provided at Appendix 5. Three email responses and supplementary email from NATS were also received and are provided at Appendix 6.



8.5. *Summary of Stage 3 Stakeholder Survey Questionnaire Responses Categorisation and Analyses.* Table 1, below, offers a summary of the categorisation and analyses of the Stage 3 stakeholder survey questionnaire responses.

ID No	Q8 Response	Q15 Response	Response Might Impact Proposed Design and ACP Submission		Response Does Not Impact ACP	Sponsor's Remarks/Comments
			Impact	No Impact		
ID1	Agree	Support			✓	<b>Categorisation.</b> Response does not impact the ACP.
						Respondent is supportive. Proffered notification and operation suggestions noted and will inform ongoing engagements with between SaxaVord and the relevant parties.
ID2	Neutral	Support			✓	<b>Categorisation.</b> Response does not impact the ACP.
						Respondent is supportive. Proffered notification and operation suggestions noted and will inform ongoing engagements with between SaxaVord and the relevant parties.
ID3	Agree	Strongly Support			✓	<b>Categorisation.</b> Response does not impact the ACP.
						Respondent is supportive. Proffered notification suggestion noted and is the subject of ongoing engagement between SaxaVord and the relevant parties.
ID4	Neutral	Neutral		✓		<b>Categorisation.</b> Response does not impact the ACP.
						Respondent is "Neutral" about (and, therefore, does not object to) the sufficiency of the airspace design. See additional comments in Appendix 5, ID4.
ID5	Neutral	Neutral			✓	<b>Categorisation.</b> Response does not impact the ACP.
						Respondent is supportive. Proffered notification and operation suggestions noted and will inform ongoing engagements with between SaxaVord and the relevant parties.
ID6	Strongly Agree	Strongly Support			✓	<b>Categorisation.</b> Response does not impact the ACP.
						Respondent is strongly supportive.
ID7	Strongly Agree	Strongly Support			✓	<b>Categorisation.</b> Response does not impact the ACP.
						Respondent is strongly supportive.

ID No	Q8 Response	Q15 Response	Response Might Impact Proposed Design and ACP Submission		Response Does Not Impact ACP	Sponsor's Remarks/Comments
			Impact	No Impact		
ID8	Neutral	Strongly Object			✓	<p><b>Categorisation.</b> Response does not impact the ACP.</p> <p>Respondent is ""Neutral"" about (and, therefore, does not object to) the sufficiency of the airspace design and offers no actionable feedback on the proposed airspace design.</p> <p>See additional comments in Appendix 5, ID8.</p>
ID9	Strongly Agree	Strongly Support			✓	<p><b>Categorisation.</b> Response does not impact the ACP.</p> <p>Respondent is strongly supportive. Proffered notification and operation suggestions noted and continue to inform ongoing engagements with between SaxaVord and the relevant parties.</p>
ID10	Neutral	Neutral			✓	<p><b>Categorisation.</b> Response does not impact the ACP.</p> <p>Respondent is ""Neutral"" about (and, therefore, does not object to) the sufficiency of the airspace design and the proposal in general. Respondent's comments regarding notification, coordination and future environmental-focused collaboration are noted and will inform the necessary engagement with between SaxaVord and the relevant parties.</p>
ID11	Strongly Agree	Strongly Support			✓	<p><b>Categorisation.</b> Response does not impact the ACP.</p> <p>Respondent is strongly supportive.</p>
ID12	Agree	Neutral			✓	<p><b>Categorisation.</b> Response does not impact the ACP.</p> <p>Respondent agrees with the sufficiency of the proposed airspace design, but expresses neutrality over their support to the proposal. Proffered notification, coordination and operation observations are noted and continue to inform ongoing engagements between SaxaVord and the relevant parties.</p>

ID No	Q8 Response	Q15 Response	Response Might Impact Proposed Design and ACP Submission		Response Does Not Impact ACP	Sponsor's Remarks/Comments
			Impact	No Impact		
ID13	Neutral	Strongly Object		✓		<p><b>Categorisation.</b> Response does not impact the ACP.</p> <p>Respondent is "Neutral" about (and, therefore, does not object to) the sufficiency of the airspace design.</p> <p>See additional comments in Appendix 5, ID13.</p>
ID14	Neutral	Neutral			✓	<p><b>Categorisation.</b> Response does not impact the ACP.</p> <p>Respondent is "Neutral" about (and, therefore, does not object to) the sufficiency of the airspace design and offers no actionable feedback on the proposed airspace design.</p> <p>See additional comments in Appendix 5, ID14.</p>
ID15	Neutral	Neutral			✓	<p><b>Categorisation.</b> Response does not impact the ACP.</p> <p>Respondent is "Neutral" about (and, therefore, does not object to) the sufficiency of the airspace design.</p> <p>See additional comments in Appendix 5, ID15.</p>
ID16	Agree	Support		✓		<p><b>Categorisation.</b> Response does not impact the ACP.</p> <p>Respondent agrees with the sufficiency of the proposed airspace design and supports the proposal.</p> <p>See additional comments in Appendix 5, ID16.</p>
ID17	Strongly Agree	Strongly Disagree			✓	<p><b>Categorisation.</b> Response does not impact the ACP.</p> <p>Respondent's strong disagreement at Qs 8&amp;9 appear not to consider the overarching concept of safety by exclusion afforded by the proposed airspace reservation, as highlighted in the consultation materials and options appraisal.</p> <p>Respondent's strong objection at Q15 and comments at Q16 are focused on the planning and associated environmental impacts of the spaceport, as opposed to the airspace design.</p>

Table 1 - ACP-2017-079 Stage 3 Stakeholder Responses - Analyses, Categorisation and Remarks

8.6. SaxaVord received a total of 17 survey questionnaire responses; 16 questionnaire responses through the Citizen Space platform and a further hand-written questionnaire response, which SaxaVord transposed to Citizen Space. One survey questionnaire was supplemented by an email from the respondent (NATS) and a further 3 email responses were received from other stakeholder organisations, offering that the ACP did not affect their activities:

8.7. *SaxaVord's Categorisation of the Responses.* SaxaVord's categorisation of the responses was guided by the following 2 principles:

- a. The response was directed solely to design of the proposed airspace.
- b. The respondents replied to Questions 8 and 15 in the Questionnaire.

SaxaVord could only categorise airspace and aviation-related comments; those responses that invoked other issues (for example, planning, environmental and non-aviation observations) were acknowledged.

8.8. Of the 17 survey questionnaire responses received and analysed, 14 were categorised "Response Does Not Impact the ACP". The remaining 3 questionnaire responses received were analysed and categorised "Response Might Impact Proposed Design and ACP Submission". SaxaVord's subsequent analysis of these responses and their comments resulted in all 3 being categorised as having "No Impact".

8.9. Respondents' survey questionnaire responses in full and SaxaVord's detailed comments and replies are at Appendix 5.

8.10. The categorisation and analysis of the survey questionnaire responses was that none would impact the proposed airspace design.

## 9. Conclusion.

9.1. The objective of the ACP-2017-079's consultation process was to consult the application's stakeholders (aviation and non-aviation) on the potential impact(s) of the proposed airspace design on their respective operations and activities. SaxaVord's aim was to ensure that the Application's stakeholders could participate fully in the consultation activity. This approach was articulated clearly in SaxaVord's Stage 3 [Consultation Strategy document](#).

9.2. SaxaVord produced a common set of consultation materials for all stakeholders and made the materials available on the ACP-2017-079 portal and through the Citizen Space platform; this platform was the main consultation route and contained the corresponding survey questionnaire. In addition, the availability of print versions of all of the consultation materials, supporting documentation and questionnaire was highlighted on the SaxaVord website, social media, local radio and print media and leaflets were distributed to all Unst households. This approach ensured that 'seldom heard groups' would be included.

9.3. SaxaVord received 16 survey questionnaire responses through the Citizen Space platform, and one handwritten survey response, which was uploaded to Citizen Space. One survey questionnaire was supplemented by an email from the respondent and 3 email responses were received from other stakeholder organisations, offering that the ACP did not affect their activities.

9.4. SaxaVord collated, reviewed, categorised all responses and conducted an analysis of the results. The Stage 3 stakeholder responses and SaxaVord's analyses thereof concluded that there was no redesign requirement for the ACP-2017-079 proposed airspace reservation.

## 10. Next Steps.

10.1. At Step 4B of the ACP process, SaxaVord will submit the airspace change proposal to CAA. This consultation report will be included as part of that submission.

List of Appendices:

1. ACP-2017-079 Stakeholders.
2. ACP-2017-079 SaxaVord Stage 3 Emails To Stakeholders.
3. SaxaVord Website Update.
4. SaxaVord Airspace Change Flyer for Unst Households.
5. ACP-2017-079 Stage 3 Stakeholder Survey Questionnaire Responses.
6. ACP-2017-079 Stage 3 Stakeholder Email Responses.



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ACP-2017-079 STAKEHOLDER LIST

Avn/ Non-Avn	Organisation	Role/Title	Name	Email Address
Aviation	Aircraft Owners and Pilots Association (AOPA)			
Aviation	Airlines for Europe (A4E)	Generic Contact		
Aviation	Airport Operators Association (AOA)			
Aviation	Airspace Change Organising Group (ACOG)			
Aviation	Airspace4All (A4A)			
Aviation	Airtask (includes Direct Flight Ltd)	Head of Business Development and Safety		
Aviation	Association of Remotely Piloted Aircraft Systems UK (ARPAS-UK)			
Aviation	Aviation Environment Federation (AEF)			
Aviation	Avinor			
Aviation	Babcock International	Head of Flight Operations		
Aviation	Bristows Helicopters - Sumburgh			
Aviation	British Airways (BA)			
Aviation	British Balloon and Airship Club (BBAC)			
Aviation	British Business and General Aviation Association (BBGA)			
Aviation	British Glider Assoc (BGA)			
Aviation	British Hang-glider & Paraglider Assoc. (BHPA)			
Aviation	British Helicopter Association (BHA)	CEO		
Aviation	British Microlight Association (BMAA)			
Aviation	British Model Flying Association (BMFA)			

Avn/ Non-Avn	Organisation	Role/Title	Name	Email Address
Aviation	British Skydiving (BPA - Parachute Assoc)			
Aviation	CAA	Airspace Change Account Manager		
Aviation	Canadian Helicopter Corp (CHC)			
Aviation	Danish Armed Forces	Staff Officer Air Traffic Management		
Aviation	Danish Ministry of Transport			
Aviation	Eurocontrol			
Aviation	Flylogix	Ops Director		
Aviation	GAMA Aviation			
Aviation	General Aviation Alliance (GAA)			
Aviation	Helicopter Club of Great Britain (HCGB)			
Aviation	Highland & Islands Airports Limited (HIAL)			
Aviation	Spacehub Sutherland (previously listed as Highland & Islands Enterprise Limited (HIEL))			
Aviation	Honourable Company of Air Pilots (HCAP)	Generic Contact		
Aviation	Icelandic CAA			
Aviation	Isavia			
Aviation	Large Model Association (LMA)	LMA Secretary		
Aviation	Light Aircraft Association (LAA)			
Aviation	Loganair			
Aviation	MOD - Defence Airspace and Air Traffic Management (DAATM)	SO2 Airspace Plans, DAATM		
Aviation	NATO Air Comd	Static Air Defence Centre, CAOC UEDEM		
Aviation	NATS	Swanwick/Prestwick		
Aviation	Noordzee Helikopters Vlaanderen (NHV)			
Aviation	Norway CAA	Senior Inspector ATM		



Avn/ Non-Avn	Organisation	Role/Title	Name	Email Address
Aviation	PDG Aviation			
Aviation	Qinetiq Ltd			
Aviation	Shetland Flyer			
Aviation	Tingwall Airfield	AFISO		
Aviation	UK Space Agency			
Aviation	Windracers	Operations & Regulatory Specialist		
Non-Aviation	Compass Rose Charters			
Non-Aviation	Danish Ministry of Environment	Ocean Office/Mads Thelander, EU and International Office		
Non-Aviation	Govt of the Faroe Islands	Ministry of Environment, Industry and Trade		
Non-Aviation	Lamba Ness Common Grazings			
Non-Aviation	Lerwick Port Authority			
Non-Aviation	Maritime Coastguard Agency (MCA)	Station Cdr Shetland		
Non-Aviation	Met Office			
Non-Aviation	Ministry of Foreign Affairs of the Government of Greenland			
Non-Aviation	Natural Environment Research Council (NERC)	Generic Contact		
Non-Aviation	Northern Lighthouse Board	Generic Contact		
Non-Aviation	Norway - Royal Ministry of Trade, Industry and Fisheries, Research and Innovation Department (initially sole NOR POC)	Coordinator of response on future airspace and maritime activities		
Non-Aviation	Ocean Kinetics			
Non-Aviation	Offshore Energies UK	Generic Contact		
Non-Aviation	Offshore Petroleum Regulator for Environment & Decommissioning (OPRED)	Generic Contact		
Non-Aviation	North Sea Transition Authority (previously the Oil & Gas Authority)	Generic Contact		

Avn/ Non-Avn	Organisation	Role/Title	Name	Email Address
Non-Aviation	Oil & Gas UK			
Non-Aviation	Police Scotland	Police Constable		
Non-Aviation	PURE Energy Centre			
Non-Aviation	RNLI	Generic Contact		
Non-Aviation	RSPB	Generic Contact		
Non-Aviation	NHS Scottish Ambulance Service	Lerwick Ambulance Service		
Non-Aviation	NHS Scottish Ambulance Service (Air Ambulance)	NHS Health Scotland (Service Head of Air Ambulance)		
Non-Aviation	Scottish Govt (MSP Highland & Islands)	Wider Local MSP		
Non-Aviation	Scottish Govt (MSP Shetland)	Local MSP		
Non-Aviation	Scottish Natural Heritage			
Non-Aviation	Scottish Ornithologists' Club (SOC)	President		
Non-Aviation	Scottish Wildlife Trust			
Non-Aviation	Scottish Environmental Protection Agency (SEPA)			
Non-Aviation	Shetland Amenity Trust			
Non-Aviation	Shetland College/NAFC			
Non-Aviation	Shetland Fishermen's Association			
Non-Aviation	Shetland Islands Council	Ferries, airports and port engineering		
Non-Aviation	Shetland Oil Terminal Environmental Advisory Group (SOTEAG)			
Non-Aviation	UK Govt (MP Orkney & Shetland)			
Non-Aviation	UK Research & Innovation (UKRI)			
Non-Aviation	Unst Community Council	Clerk		
Non-Aviation	Unst Partnership Ltd	Chairman		

Table 2 - ACP-2017-079 Stakeholders

Appendix 2 to  
ACP-2017-079 Stage 3 Consultation Report  
Dated 13 Jul 23

ACP-2017-079 SAXAVORD STAGE 3 EMAILS TO STAKEHOLDERS

1. Introductory Email on 18 Apr 23.

SAXAVORD SPACEPORT AIRSPACE RESERVATION APPLICATION (ACP-2017-079) - STAKEHOLDER CON...



SaxaVord Permanent ACP  
To: SaxaVord Permanent ACP  
Bcc: [REDACTED]



Tue 18/04/2023 16:01

**i** This is the most recent version, but you made changes to another copy. Click here to see the other versions.  
Reply by 02 June 2023 06:00.  
You replied to this message on 02/05/2023 13:53.

Good afternoon,

**Introduction.** Shetland Spacecentre Limited (hereinafter referred to as "SaxaVord Spaceport" or "SaxaVord") seeks to conduct vertical orbital and sub-orbital launch operations from SaxaVord Spaceport on Lamba Ness, Unst, Shetland Islands. A suitable airspace reservation of defined dimensions is required to ensure the safety of SaxaVord launch activities from other airspace users and to ensure the safety of other airspace users from SaxaVord launch activities. A corresponding airspace change proposal (ACP) was initiated ([ACP-2017-079](#)) with the UK's Civil Aviation Authority (CAA) under the UK CAA's [CAP1616](#) process. The Application has now progressed to the "Consult" stage (i.e. Stage 3), and your organisation has been identified as one of the stakeholders with whom SaxaVord seeks to consult at Stage 3.

**CAP1616 Stage 3 "Consult".** Stage 3 is where SaxaVord undertakes its formal consultation with stakeholders. As part of its Stage 3 Consultation Strategy, SaxaVord has planned its stakeholder consultation and developed a series of related documents and materials. The CAA reviewed and approved SaxaVord's consultation strategy and materials on 18 Apr 23. Accordingly, SaxaVord is now implementing its consultation strategy and consulting its stakeholders, affording them the opportunity to provide relevant and timely feedback to enable SaxaVord to conduct its final options appraisal (i.e. Stage 4).

Application information and Stage 3 stakeholder consultation materials can be found on the Shetland Spacecentre (SaxaVord Spaceport)'s [ACP-2017-079](#) page of the UK CAA's Portal at the following links:

[ACP-2017-079 Stage 3 Stakeholder Materials.](#)

[ACP-2017-079 Full Options Appraisal](#)

**Stakeholder Consultation and Survey/ Questionnaire.** The CAA directs the use of the "Airspace Change Citizen Space" platform to support sponsors' Stage 3 consultation processes. Consequently, SaxaVord's Stage 3 survey questionnaire is hosted on Citizen Space and can be accessed through the following link: <https://consultations.airspacechange.co.uk/saxavord-spaceport/saxavord-spaceport-airspace-reservation>, which is also contained in the stakeholder consultation materials (linked above).

Your feedback and comments at Stage 3 will not only be welcomed, but will also allow SaxaVord to understand how your activities and operations might be impacted by the activation of the proposed airspace design. Moreover, your feedback will enable SaxaVord to consider and, where possible, develop appropriate mitigations to minimise identified impact(s).

Stakeholders should note that the consultation process pertains solely to the ACP's proposed airspace design.

**Timeline.** The consultation period will remain open for 8 weeks and will conclude on **Mon 12 Jun 23**, after which the survey questionnaire will no longer be available. The scaled consultation period reflects the significant level of engagement and consultation to date on SaxaVord spaceport activities and its proposed airspace design(s), which have been notified previously to stakeholders.

**Conclusion.** In anticipation, thank you for completing your consultation response. Your response will be held and managed in the strictest confidence and in accordance with extant UK Data Protection guidance.

In the interim, please feel free to contact us if you have any further questions relating to this stage of ACP-2017-079's CAP1616 process.

On behalf of the Shetland Spacecentre Ltd (SaxaVord Spaceport), for the purposes of ACP-2017-079's CAP1616 application and associated processes.

<http://www.avisu.co.uk/>

<https://saxavord.com/>




## 2. Reminder Emails on 2 May and 6 Jun 23.

RE: SAXAVORD SPACEPORT AIRSPACE RESERVATION APPLICATION (ACP-2017-079) - STAKEHOLDER C...

 SaxaVord Permanent ACP  
To:  SaxaVord Permanent ACP  
Bcc: 

  Reply  Reply All  Forward 

Tue 06/06/2023 16:21

 You replied to this message on 06/06/2023 16:31.

Good afternoon,

Our sincere thanks to all who have completed the online questionnaire and those who have submitted responses bilaterally. Stakeholders are reminded that the consultation window for SaxaVord Spaceport's proposed airspace design will close on Monday 12th June 2023.

In anticipation, very many thanks.

**On behalf of the Shetland Spacecentre Ltd (SaxaVord Spaceport), for the purposes of ACP-2017-079's CAP1616 application and engagement processes.**

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**From:** SaxaVord Permanent ACP

**Sent:** Tuesday, May 2, 2023 1:53 PM

**To:** SaxaVord Permanent ACP <[saxavordpacp@avisu.co.uk](mailto:saxavordpacp@avisu.co.uk)>

**Subject:** RE: SAXAVORD SPACEPORT AIRSPACE RESERVATION APPLICATION (ACP-2017-079) - STAKEHOLDER CONSULTATION

Good afternoon, ladies and gentlemen,

Thank you to those who have completed and submitted their online questionnaires. Stakeholders are reminded that the consultation window remains open until Monday 12th June 2023.

In the interim, please feel free to contact us if you have any further questions relating to this stage of ACP-2017-079's CAP1616 process.

**On behalf of the Shetland Spacecentre Ltd (SaxaVord Spaceport), for the purposes of ACP-2017-079's CAP1616 application and associated processes.**

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Appendix 3 to  
ACP-2017-079 Stage 3 Consultation Report  
Dated 13 Jul 23

SAXAVORD SPACEPORT WEBSITE - ACP-2017-079 STAGE 3 NEWS UPDATE



  
**SaxaVord Spaceport  
Airspace Change  
Proposal Progresses  
to Stage 3 “Consult”**

To support SaxaVord Spaceport’s future vertical space launch operations from Lamba Ness, Unst, a suitable airspace reservation of defined dimensions is required to ensure the safety of other airspace users from launch activities and vice versa.

In 2017, SaxaVord embarked on the UK Civil Aviation Authority (CAA)-mandated airspace change process, which is set out in Civil Aviation Publication 1616 (CAP1616).<sup>1</sup> SaxaVord’s application for a suitable airspace reservation has now progressed to “Stage 3” of the CAP1616 process, where SaxaVord consults with those interested parties, including local communities. In the light of responses, SaxaVord may modify its proposed airspace design, before making the formal submission (i.e. Stage 4) of the proposal to the CAA for their decision.

1. The UK CAA’s regulatory document pertaining to airspace changes is Civil Aviation Publication 1616 (CAP1616), which sets out ‘inter alia’ airspace change sponsors’ responsibilities and actions and CAA’s regulatory and process requirements for UK airspace change proposals.

## Airspace Change consultation

May 9, 2023 | News

To support SaxaVord Spaceport’s future vertical space launch operations from Lamba Ness, Unst, a suitable airspace reservation of defined dimensions is required to ensure the safety of other airspace users from launch activities and vice versa.

The latest round of this Civil Aviation Authority-mandated airspace change process is now under way with a public consultation. Please click on the link below to find out more information and how to complete a survey questionnaire.

[Click here for further information](#)

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Appendix 4 to  
ACP-2017-079 Stage 3 Consultation Report  
Dated 13 Jul 23

## SAXAVORD AIRSPACE CHANGE FLYER FOR UNST HOUSEHOLDS



In 2017, SaxaVord embarked on the UK Civil Aviation Authority (CAA)-mandated airspace change process, which is set out in Civil Aviation Publication 1616 (CAP1616).<sup>1</sup> SaxaVord's application for a suitable airspace reservation has now progressed to "Stage 3" of the CAP1616 process, where SaxaVord consults with those interested parties, including local communities. In the light of responses, SaxaVord may modify its proposed airspace design, before making the formal submission (i.e. Stage 4) of the proposal to the CAA for their decision.



1. The UK CAA's regulatory document pertaining to airspace changes is Civil Aviation Publication 1616 (CAP1616), which sets out - inter alia - airspace change sponsors' responsibilities and actions and CAA's regulatory and process requirements for UK airspace change proposals.



## HAVE YOUR SAY

SaxaVord welcomes feedback and comments at Stage 3 of this application, and has created a corresponding set of consultation materials, which may be accessed on CAA's airspace change proposal on its website [www.caa.co.uk](http://www.caa.co.uk) under the tab Airspace. All documentation related to this application may be found there. There is also a simple, straight-forward survey questionnaire for stakeholders to complete.

The CAA directs the use of the "Airspace Change Citizen Space" site to support all Stage 3 consultation processes; the questionnaire may also be accessed via this QR code:

**The consultation window will close on Monday 12th June 2023.**



If you are unable to access the internet, please call **+44 01806 220 403** for support and guidance.

## What happens next with SaxaVord's Airspace Change Application?

Stakeholders' feedback and responses will be collated and reviewed, and, where appropriate, will inform the finalised airspace design, which is scheduled to be submitted to CAA at the end of June 2023.



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ACP-2017-079 STAGE 3 STAKEHOLDER SURVEY QUESTIONNAIRE RESPONSES

Citizen Space Online Survey Questionnaire.

ID	Q1	Q2	Q3	Q4	Q5	Q6
	What is your name?	Are you responding as an individual, or do you represent an organisation?	If you are responding on behalf of an organisation, what is the name of the organisation?	What is your email address?	What is your/your organisation's postcode?	If you are responding on behalf of an organisation what is your position/title?
	Q7	SaxaVord seeks direct feedback from aviation and non-aviation stakeholders, alike. What best describes your association with this proposed permanent airspace change?	Q8	To what extent do you agree that the proposed permanent airspace design provides a sufficient airspace volume to protect launch operations from other airspace users and vice versa?	Q9	Please explain your response to Q8.
	Q10	SaxaVord is keen to mitigate the impact of its operation on its stakeholders. What mitigations would you suggest that could ameliorate any concern(s) that you/your organisation might have?				
	Q11	Whilst Airspace Management (ASM) procedures and processes between SaxaVord and the relevant parties continued to be discussed and developed, what feedback, if any, do you have on ASM procedures for the application?	Q12	Whilst letters of agreement (LOAs) and memoranda of understanding (MOUs) between SaxaVord and the relevant parties continued to be discussed and developed, what feedback, if any, do you have on LOAs and MOUs for the application?		
	Q13	What feedback, if any, do you have on the operating principles of the proposed permanent airspace reservation?	Q14	What additional general considerations might you/your organisation like SaxaVord to consider in relation to this permanent airspace change proposal?		
	Q15	In general terms, to what extent do you/does your organisation support the proposed permanent airspace design?	Q16	Please explain your response to Q15. - Please comment on your/your/organisation's level of support selection in the text box below.		
ID	Sponsor Categorisation, Assessment and Remarks/Comments					
	<b>Response Might Impact Proposed Design and ACP Submission</b> Responses which have been categorised as having the potential to impact on the proposal would include new information or ideas that the change sponsor believes could lead to an adaptation in a lead design option or a new design option.		<b>Response Does Not Impact ACP</b>		<b>Sponsor's Remarks/Comments</b>	
	<b>Impact</b> The change sponsor must show how the response has been acted on and what changes have occurred to their proposal.	<b>No Impact</b> The change sponsor must show why the response has not been acted on and explain why the proposal cannot be modified to meet the recommendation.	The content of this response would not include new information or ideas that could lead to an adaptation in a lead design option or a new design option but may include other information that should be logged and considered. For example responses which criticise the consultation format should give sponsors insight to improve future engagement; sentiments identified around trust will help to identify areas where additional future engagement may improve relationships; and criticism of historic activity may help to avoid similar situations in future. The change sponsor must be able to show how it has heard, understood and classified responses which do not impact its final proposal, and set out clearly why.		<b>Categorisation.</b> Sponsor's assessment of response category. Sponsor's explanatory remarks/comments.	

Citizen Space Online Survey Responses

ID1	Q1		Q2	Organisation	Q3		Q4		Q5		Q6	CEO
	Q7	Aviation stakeholder	Q8	Agree	Q9	I have no scientific proof either way but I trust you have done modelling						
	Q10	Make sure you activate for shortest period consistent with safety										
	Q11	[No comment provided]				Q12	Make sure you have you have one with HM Coastguard and their SAR provider					
	Q13	[No comment provided]				Q14	[No comment provided]					
	Q15	Support			Q16	It is good for UK						
ID1	Sponsor Categorisation, Assessment and Remarks/Comments											
	Response Might Impact Proposed Design and ACP Submission			Response Does Not Impact ACP		Sponsor's Remarks/Comments						
	Impact		No Impact		✓		<p><b>Categorisation.</b> Response does not impact the ACP.</p> <p>Respondent is supportive. Proffered notification and operation suggestions noted and will inform ongoing engagements with between SaxaVord and the relevant parties.</p>					
ID2	Q1		Q2	Organisation	Q3		Q4		Q5		Q6	Chief Pilot
	Q7	Aviation stakeholder	Q8	Neutral	Q9	Unable to assess this until sighted on MOU/LOA regarding short-notice access for SAR aircraft.						
	Q10	Nil										
	Q11	Nil				Q12	<p>1. MOU/LOA for SAR access will need to be linked with existing ASM, such that adjacent ATC can liaise with SaxaVord in order to grant clearance into affected airspace for SAR assets, including helos, fixed wing and UAS air assets. A direct link to the JRRC-AR (MCA) would also assist in notifying SaxaVord of the requirement for SAR aircraft to access affected airspace as soon as possible, and for the JRRC-AR to pass access clearance to SAR assets.</p> <p>2. NOTAMs should be issued ideally at least 24hrs prior and no later than 12hrs prior to airspace activation, such that SAR crews are aware of the restriction during shift handover and crew briefing periods at base."</p>					
	Q13	None.				Q14	Continued 24/7 access to Baltasound Airfield for emergency landing site access/support to Unst residents as is currently in place.					
	Q15	Support			Q16	At this stage, nil objections pending clarification of MOU/LOA as described in Q12.						
ID2	Sponsor Categorisation, Assessment and Remarks/Comments											
	Response Might Impact Proposed Design and ACP Submission			Response Does Not Impact ACP		Sponsor's Remarks/Comments						
	Impact		No Impact		✓		<p><b>Categorisation.</b> Response does not impact the ACP.</p> <p>Respondent is supportive. Proffered notification and operation suggestions noted and will inform ongoing engagements with between SaxaVord and the relevant parties.</p>					

ID3	Q1		Q2	Individual	Q3		Q4		Q5		Q6	[N/A]	
	Q7	Non-aviation stakeholder	Q8	Agree	Q9	From what I have seen so far, airspace is clear to the north.							
	Q10	Plenty of warning of any launch date/time. Closure of no-go areas.											
	Q11	None at present.					Q12	None.					
	Q13	None.					Q14	Don't know. It has to be safe for all concerned.					
	Q15	Strongly Support			Q16	As long as safety measures are in place, Unst needs this development. It is in a unique position to benefit from it due to its position.							
ID3	Sponsor Categorisation, Assessment and Remarks/Comments												
	Response Might Impact Proposed Design and ACP Submission			Response Does Not Impact ACP		Sponsor's Remarks/Comments							
	Impact		No Impact		✓		Categorisation. Response does not impact the ACP.						
	Respondent is supportive. Proffered notification suggestion noted and is the subject of ongoing engagement between SaxaVord and the relevant parties.												
ID4	Q1		Q2	Organisation	Q3		Q4		Q5		Q6		
	Q7	Aviation stakeholder	Q8	Neutral	Q9	I'm not an expert in rocket launches							
	Q10	<p>Here are answers regarding a similar danger area planned to be in used later this year or in the beginning of next year. We believe the same applies to this area.</p> <p>Effects on operations/traffic: The area impacted within BIRD FIR is one of the most frequently used air traffic gateways into the Reykjavik CTA. The estimated percentage of aircraft entering the impacted area is 16% of all total traffic flying within BIRD FIR. On an average day it can be expected to impact 76 flights, and over 230 flights over a 3-day period. These aircraft would have to reroute either north of the impacted area or decide to fly south of the launch position and to enter Reykjavik CTA later or not at all, thereby, flying south of Shetland and into another FIR. In all cases, this would mean a reduction in revenues for Isavia ANS, increased workload for those FIR's taking on the extra traffic and an increase in flight time and fuel burn and greenhouse gas emissions for those airlines needing to operate on a longer and less optimum route. The impact on increased workload for air traffic controllers and safety has not been assessed but could be considerable should traffic levels align with current projections.</p> <p>Another item of consideration is that the traffic volume depends on forecasted high level winds. These numbers are, on average, over 400 aircraft on a busy day. However, this number could be a great deal higher with favorable winds. The time period in question, August to October, are among the busiest months of the year with regard to traffic.</p> <p>Financial Implications: Regarding the financial part, service fees are calculated using flown kilometers within Reykjavik CTA. For an average day in July, estimated financial impact on the company could be considerable depending on airlines decisions on where they would reroute their fleet.</p> <p>For an industry that has suffered tremendous financial losses due to the COVID pandemic over the last two years, therefore, any negative financial impact will be proportionally more significant to our operations at a time when we can ill afford any financial setbacks. As a result, this matter is of great concern to us and viewed with the utmost severity.</p> <p>Recommendations: We recommend that launch times be held from 22pm until 8am in order to minimize effects on air traffic.</p> <p>Further information: Within the impacted area there is a smaller low-level area, called the North Sea Area within both the Reykjavik and Norway FIR's with an upper flight level of 8500 feet. This area is established to serve helicopters travelling to and from oil rigs in the area. The aircraft flying in this area are uncontrolled aircraft that, nevertheless, could be affected.</p> <p>Regulator: The regulator for Reykjavik FIR is the Icelandic Transport Authority (ICETRA) <a href="https://www.icetra.is/">https://www.icetra.is/</a>.</p>											
	Q11	See answer to question nr 10					Q12	See answer to question nr 10					
	Q13	If the Icelandic CAA approves a Danger Area within BIRD CTA, a permanent airspace is a good idea.					Q14						
	Q15	Neutral			Q16	It is the Icelandic CAA (ICETRA) that has the final say in this.							

ID4 Sponsor Categorisation, Assessment and Remarks/Comments											
Response Might Impact Proposed Design and ACP Submission				Response Does Not Impact ACP		Sponsor's Remarks/Comments					
Impact		No Impact									
		✓				<p><b>Categorisation.</b> Response does not impact the ACP.</p> <p>Respondent is "Neutral" about (and, therefore, does not object to) the sufficiency of the airspace design.</p> <p><b>Q10.</b></p> <p><b>- Effects on Operations/Traffic.</b> The data cited at the response to Q10 is noted; however, the data may not necessarily reflect the number of flights potentially impacted by a carefully selected launch window. The identification of the peak hour of the peak day and resultant data and calculations were set out clearly in the <a href="#">Full Options Appraisal</a>, Paras 15-37. As offered at the <a href="#">Full Options Appraisal</a>, Paras 25-28, the rerouting methodology employed was not complex and acknowledged that "computations associated with a more detailed analysis are too numerate and, undoubtedly, would be influenced by - inter alia - the prevailing meteorological conditions, ATM route loading and airline routing policies/strategies". Similarly, SaxaVord's assessment of the potentially impacted flights' fuel burn and CO2e is offered at <a href="#">Full Options Appraisal</a>, Paras 40 &amp; 41, appropriately caveated at Para 42. Seasonal variations are discussed at <a href="#">Full Options Appraisal</a>, Para 20.</p> <p>SaxaVord seeks to minimise impact on other airspace users by identifying and selecting suitable launch windows of the minimum duration required; any shift in traffic patterns, due to the activation of the proposed airspace design for those short, notified periods would be the purview of EUROCONTROL Network Management, who will seek to optimise all flights' routes based on airspace reservations across the entire network. SaxaVord acknowledges that a shift in air traffic patterns could impact an ANSP's resource requirements for the duration of small, pre-notified launch window(s), as do other airspace reservations and aerial activities.</p> <p><b>- Financial Implications.</b> See previous comments regarding launch window selection, minimisation of potential impact(s) and route charges.</p> <p><b>- Recommendations.</b> See previous comments regarding launch window selection.</p> <p><b>- Further information.</b> Noted; SaxaVord continues to engage with - inter alia - the North Sea helicopter community.</p>					
ID5	Q1	Q2	Organisation	Q3	Q4	Q5	Q6				
	Q7	Non-aviation stakeholder	Q8	Neutral	Q9	The Met Office releases radiosondes (weather balloons carrying instruments measuring atmospheric profiles of pressure, wind speed/direction, temperature and humidity) from its Observatory in Lerwick (NGR 445449E, 1139734N) . These are released daily at 1115UTC and 2315UTC and ascend to around 35km, before bursting and falling back to earth. We believe the risk of collision is very low but one that should be considered and minimised.					
	Q10	"Upon reviewing the documents, the most likely risk from the Met Office's perspective is that a rocket is launched while a radiosonde (weather balloon), launched from Lerwick, is present in the area of shared airspace. The Met Office has no control over the trajectory of the radiosondes that we launch from Lerwick. As such, we think that it would be sensible for there to be consultation between the Met Office and the Saxavord Spaceport to avoid a clash between radiosonde launches and rocket launches, which would require further discussion."									
	Q11	[No comment provided]			Q12	As we have no control over the flight path of the radiosondes, we request consultation with Saxavord around radiosonde launch times before they take place, on days where a rocket launch is planned. With sufficient consultation time, we could reschedule the radiosonde launch times to avoid the airspace if a clash might appear likely. We recommend an SLA between Saxavord and the Met Office, in order to formalise the process of consultation to implement it successfully. There is also the opportunity for Saxavord to request additional radiosonde launches to gather more information on wind speed and direction ahead of rocket launches.					
	Q13	[No comment provided]			Q14	[No comment provided - the following text was moved from Q6] My role is to participate in the local planning process as a consultee to protect our meteorological observing sites from developments [sic] that might have an adverse impact on data and services. See <a href="https://www.metoffice.gov.uk/services/business-industry/energy/safeguarding">https://www.metoffice.gov.uk/services/business-industry/energy/safeguarding</a>					
	Q15	Neutral			Q16	Our main consideration is our radiosonde operations and how we can work together to ensure they and the spaceport operations are successful.					
ID5 Sponsor Categorisation, Assessment and Remarks/Comments											
Response Might Impact Proposed Design and ACP Submission				Response Does Not Impact ACP		Sponsor's Remarks/Comments					
Impact		No Impact									
				✓		<p><b>Categorisation.</b> Response does not impact the ACP.</p> <p>Respondent is supportive. Proffered notification suggestion noted.</p>					

ID6	Q1		Q2	Individual	Q3		Q4		Q5		Q6	[N/A]	
	Q7	Non-aviation stakeholder	Q8	Strongly agree	Q9	Legally required							
	Q10	No comment.											
	Q11	None					Q12	None					
	Q13	None					Q14	No further comments					
	Q15	Strongly Support			Q16	Regeneration of the island of Unst							
ID6	Sponsor Categorisation, Assessment and Remarks/Comments												
	Response Might Impact Proposed Design and ACP Submission			Response Does Not Impact ACP		Sponsor's Remarks/Comments							
	Impact		No Impact		✓		Categorisation. Response does not impact the ACP.						
	Respondent is strongly supportive.												
ID7	Q1		Q2	Individual	Q3		Q4		Q5		Q6	[N/A]	
	Q7	Non-aviation stakeholder	Q8	Strongly agree	Q9	Legally required							
	Q10	No concerns.											
	Q11	None					Q12	No concerns.					
	Q13	No concerns.					Q14	None					
	Q15	Strongly Support			Q16	No concerns.							
ID7	Sponsor Categorisation, Assessment and Remarks/Comments												
	Response Might Impact Proposed Design and ACP Submission			Response Does Not Impact ACP		Sponsor's Remarks/Comments							
	Impact		No Impact		✓		Categorisation. Response does not impact the ACP.						
	Respondent is strongly supportive.												

ID8	Q1		Q2	Individual	Q3		Q4		Q5		Q6	[N/A]	
	Q7	Non-aviation stakeholder	Q8	Neutral	Q9	Not qualified to comment.							
	Q10	The environmental impact of the spaceports has been considerably underplayed and its impact on internationally important seabird colonies has not been properly assessed, despite claims to the contrary.											
	Q11	[No comment provided]					Q12	[No comment provided]					
	Q13	[No comment provided]					Q14	[No comment provided]					
	Q15	Strongly Object			Q16	The whole project is a flawed concept IMVHO, with scant regard being shown for planning regulations and environmental protection.							
ID8	Sponsor Categorisation, Assessment and Remarks/Comments												
	Response Might Impact Proposed Design and ACP Submission			Response Does Not Impact ACP		Sponsor's Remarks/Comments							
	Impact		No Impact		✓		<p><b>Categorisation.</b> Response does not impact the ACP.</p> <p>Respondent is "Neutral" about (and, therefore, does not object to) the sufficiency of the airspace design and offers no actionable feedback on the proposed airspace design.</p> <p>The respondents' comments at Qs 9 and 16 are acknowledged and noted but are not directly applicable to the airspace change process, proposed airspace design and associated consultation. The respondent's objections appear focused on the planning and associated potential environmental impacts of the spaceport, as opposed to the airspace design; accordingly, the response does not impact the proposed airspace design and/or the ACP submission.</p> <p>During the planning application for the Spaceport and the subsequent Environmental Impact Assessment and Assessment of Environmental Effects, SaxaVord and its representatives consulted and engaged extensively and made available its concomitant reports and supporting evidence, of which Habitats Regulation Assessment (HRA) was one of many component elements.</p> <p>The HRA addresses the impact(s) on biodiversity and forms part of the spaceport licencing process, which is separate process.</p>						

ID9	Q1		Q2	Organisation	Q3		Q4		Q5		Q6	Regulatory Specialist
	Q7	Aviation stakeholder	Q8	Strongly agree	Q9	Having read the material for Stakeholder Engagement and visiting the site to fully understand the impact of the airspace change I believe the airspace design is reasonable and effective at securing the safety of other airspace users.						
	Q10	The most effective mitigation strategy to minimize the impact on our organization and other airspace users would involve activating the airspace for the shortest possible duration. This has been covered in the stakeholder engagement material suggesting an activation period of one hour, a reasonable and appropriate duration.										
	Q11	Currently no feedback for ASM.				Q12	The impact of the airspace change on Windracers operations is minimal. Windracers is happy to support the ACP-2017-079 application process.					
	Q13	Any impact to Windracers operations can be coordinated in real time and we believe operations and aircraft movements can be integrated with the SaxaVord proposal.				Q14	We are happy to support the ongoing ACP as it is.					
	Q15	Strongly Support			Q16	The safety of other airspace uses has been considered in an effective and non disruptive manner. The partitioned design option allows for efficient use of the airspace. The ACP supports industry growth within the UK. For these reasons Windracers are happy to support the proposal.						
ID9	Sponsor Categorisation, Assessment and Remarks/Comments											
	Response Might Impact Proposed Design and ACP Submission			Response Does Not Impact ACP		Sponsor's Remarks/Comments						
	Impact		No Impact		✓		Categorisation. Response does not impact the ACP.					
	Respondent is strongly supportive.											
	Proffered notification and operation suggestions noted and continue to inform ongoing engagements with between SaxaVord and the relevant parties.											
ID10	Q1		Q2	Organisation	Q3		Q4		Q5		Q6	Executive Officer
	Q7	Non-aviation stakeholder	Q8	Neutral	Q9	I am not an expert in this field .						
	Q10	We would like assurances that the work carried out by SOTEAG would not be jeopardised by the operations of SaxaVord										
	Q11	[No comment provided]				Q12	All parties should be properly informed and any impact on other users or interested parties in the area should have full disclosure.					
	Q13	It would be of interest to us if SaxaVord have any interest in working collaboratively on the environmental assessments. It is also of interest to us to know if there are plans to carry out continuous environmental assessment throughout the operational life (and beyond) of SaxaVord.				Q14	[No comment provided]					
	Q15	Neutral			Q16	I have no strong opinion as long as measures are put in place to protect the natural heritage of the area, and those measures are continuous through the operational life.						
ID10	Sponsor Categorisation, Assessment and Remarks/Comments											
	Response Might Impact Proposed Design and ACP Submission			Response Does Not Impact ACP		Sponsor's Remarks/Comments						
	Impact		No Impact		✓		Categorisation. Response does not impact the ACP					
	Respondent is "Neutral" about (and, therefore, does not object to) the sufficiency of the airspace design and the proposal in general.											
	Respondent's comments regarding notification, coordination and future environmental-focused collaboration are noted and will inform the necessary engagement with between SaxaVord and the relevant parties.											

ID11	Q1		Q2	Organisation	Q3		Q4		Q5		Q6	
	Q7	Non-aviation stakeholder	Q8	Strongly agree	Q9	The site location at Lamba Ness in Unst has repeatedly been cited as being ideal geographically as there is nothing to restrict proposed flight trajectories.						
	Q10	None.										
	Q11	None.				Q12	None.					
	Q13	None.				Q14	Safety is vital but there is confidence that through the necessary regulatory processes in all parts of airspace operations safety will be a priority.					
	Q15	Strongly Support				Q16	Shetland welcomes new industry and innovation. This proposal will benefit the UK's space industry development, as well as the community of Unst, Shetland as a whole, and the wider country.					
ID11	Sponsor Categorisation, Assessment and Remarks/Comments											
	Response Might Impact Proposed Design and ACP Submission			Response Does Not Impact ACP		Sponsor's Remarks/Comments						
	Impact		No Impact		✓		Categorisation. Response does not impact the ACP.					
	Respondent is strongly supportive.											



ID12	Q1		Q2	Organisation	Q3		Q4		Q5		Q6	
	Q7	Aviation stakeholder	Q8	Agree	Q9	Based on the consultation material, it appears that the proposed dimensions of the area are sufficient in ensuring that the activities remain segregated from other users.						
	Q10	It is noted that discussions are ongoing with MOD for the creation of a LOA that defines how MOD can request an abortion/suspension of activity in the event of an Air Policing requirement to cross/access the area, as well as deconfliction of spectrum usage against MOD assets in the vicinity. These are the 2 primary areas of concern for MOD stakeholders, so when the agreement is reached to mitigate these concerns, it should only be airspace management issues that require mitigation (see next section).										
	Q11	The AMC wish to understand who the sponsor proposes to manage the airspace. If this is likely to fall to the UK AMC (and involve MOD staff) then there is a wider question about resource allocation for commercial activity that is not directly supporting defence. This is something that the Civil Airspace Managers are keen to ensure is raised in any new entrant discussion, particularly where airspace management associated with their proposed activity is required. This raises further questions around governance, priorities, cost and resource required for the management of the airspace supporting the commercial space activity. Previous space activity i.e. Virgin Orbit, required the AMC to carry out the following activities: coordinating the NOTAM activity – creations/cancellation; creation of specific LOAs to cover cross border operations; coordination of associated training activity – training sorties with airspace activation; managed the airspace for the event (midnight evolution); attended the biweekly planning meetings over a 6 month period. These tasks were a considerable resource drain for a single event, so the MOD wishes to understand how the sponsor proposes to manage the airspace and what (if anything) is requested of the MOD.				Q12	Please see response to question 10.					
	Q13	The operating principles of the revised area i.e. only using the airspace necessary for each specific launch type and for the minimum amount of time necessary, aligns with the principles of FUA.				Q14	The MOD wishes to understand what priority these activities will have in relation to existing airspace activities e.g. will launches always receive a high priority, or will it depend on the payload being delivered? An understanding of what priority the sponsor is requesting from the CAA would be useful for the MOD's wider SA.					
	Q15	Neutral			Q16	The MOD does not object to the proposal but wishes to remain neutral in terms of supporting it.						
ID12	Sponsor Categorisation, Assessment and Remarks/Comments											
	Response Might Impact Proposed Design and ACP Submission				Response Does Not Impact ACP		Sponsor's Remarks/Comments					
	Impact		No Impact		✓		<p><b>Categorisation.</b> Response does not impact the ACP.</p> <p>Respondent agrees with the sufficiency of the proposed airspace design, but expresses neutrality over their support to the proposal. Proffered notification, coordination and operation observations are noted and continue to inform ongoing engagements between SaxaVord and the relevant parties.</p> <p><b>Q10.</b> Operational and asset safeguarding comments noted.</p> <p><b>Q11.</b> Comments are acknowledged. CAP740 offers that "[t]emporary airspace structures and those structures wishing to be utilised by new entrants or commercial entities are dealt with on a case-by case basis whilst revised policy is drafted".<sup>1</sup> SaxaVord, therefore, awaits CAA's decision and resultant policy guidance.</p> <p>SaxaVord acknowledges the scale, complexities and differing launch requirements of the Virgin Orbit activities, but would contend that the comparison could be erroneous, for example, there is no launch training sortie requirement and associated demand on MOD resources (i.e. 78 Sqn). In addition, SaxaVord believes that there is no additional training requirement to accommodate the proposed airspace design over and above the routine activation and deactivation of existing SUAs within UK FIRs/UIRs. NOTAM activity would be correspondingly low, to support up to 30 launches per annum, and SaxaVord is already well embarked on developing the necessary LOAs/MOUs with international partners.</p> <p><b>Q14.</b> Whilst not directly related to the ACP, a valid observation and one that would be precipitate from the outcome of the CAA's CAP740-related decision and subsequent policy and guidance.</p>					

1. CAP740, Chapter1, Para 1.14 ([online](#)), accessed on 27 Jun 23.

ID13	Q1		Q2	Organisation	Q3		Q4		Q5		Q6	Inspector Air Navigation Services
	Q7	Aviation stakeholder	Q8	Neutral	Q9	<p>It is the responsibility of the applicant to define appropriate exclusion zone, ensure and validate through simulations. UK CAA has the responsibility to verify/validate the methods and calculations. The applicant must as well have third party liability insurance in case the launch goes wrong and the vehicle causes damages outside or inside the exclusion zone.</p> <p>The shape of the area is odd since the edges (not minding the area close to the launch pad) of the area should have straight lines all the way to the furthest point.</p>						
	Q10	<p>It would mitigate impact to traffic flow in BIRD FIR to launch to west in stead [sic] of north. If necessary in the future to launch north to send satellites on the correct orbital track it can be handled on ad-hoc basis.</p> <p>Mitigation on revenue loss for the ANSP's for lost traffic through FIR, that goes hand in hand with increased cost (workload) for re-routing traffic.</p> <p>Mitigation on how the spaceports are going to participate in the cost of airspace management for the future since the present users are the only party paying the cost currently.</p>										
	Q11	<p>ASM procedures need to state and serve the fact that even though a launch window is only one hour, the implications on traffic flow will be way more (for longer period). The calculation of number of aircraft affected and the calculated accumulated re-route numbers look like an example for some best case scenario even though it is stated that a peak day and hour was selected.</p> <p>The calculations do not consider the loss of revenue for one ANSP's against increased revenue for another ANSP in a different FIR. Hence it's foreseen that this area will have negative impact on traffic into some FIR's while positive impact on other FIR's. This happens at same time the ANSP's are fragile and recovering from accumulated debt from the Covid period. The same goes for the airlines, increased re-routing induces cost and increases co2 emission.</p>				Q12	<p>This operation has consequences way beyond its defined danger area and needs to consider all implications. These new entrants in the ATM have not been regulated so the playing field is not ready for such dramatic decision to define permanent danger area for rocket launches [sic].</p> <p>Even though ICAO supports equal access to the airspace, to day airspace users are the ones paying for the service of airspace management and the service provided by the ANSP's. The systems in place are extremely expensive and count on dividing the cost on high volume of users. Changes caused by such danger area even though activated infrequently can have severe effect on income</p>					
	Q13	<p>The papers do not mention how the launch and subsequent ditching of the vehicle in the ocean can be done despite the fact that UK is a part of the London convention, the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter.</p>				Q14	<p>No comment.</p>					
	Q15	Strongly Object			Q16	<p>The system is not ready for permanent area for rocket launches [sic]. Ad-hoc approvals while experience is gained is more appropriate.</p>						
ID13	Sponsor Categorisation, Assessment and Remarks/Comments											
	Response Might Impact Proposed Design and ACP Submission		Response Does Not Impact ACP		Sponsor's Remarks/Comments							
	Impact	No Impact										
		✓			<p><b>Categorisation.</b> Response does not impact the ACP.</p> <p>Respondent is "Neutral" about (and, therefore, does not object to) the sufficiency of the airspace design.</p> <p><b>Q9.</b> SaxaVord's design evolution was articulated and design principles outlined at Stage 2 and, latterly, at the application's <a href="#">Full Options Appraisal</a>, Para 6 (<i>et al</i>). There is no third-party liability required for airspace design. The rationale for the evolution of the proposed design between Stage 2 and Stage 3 was highlighted in the application's <a href="#">Full Options Appraisal</a>, Paras 6-14 and in the <a href="#">Stakeholder Consultation Materials</a>, Slides 10-14.</p> <p><b>Q10.</b> The rationale for preferred launch trajectories was highlighted at the application's <a href="#">Stage 2 submission</a>, Para 5. The number of potential launches per annum was highlighted at - <i>inter alia</i> - the application's <a href="#">Full Options Appraisal</a>, Para 39 and in the <a href="#">Stakeholder Consultation Materials</a>, Slide 22. Launches will not be conducted <i>ad hoc</i> but scheduled and notified appropriately to the relevant parties. SaxaVord seeks to minimise impact on other airspace users by identifying and selecting suitable launch windows of the minimum duration required; any shift in traffic patterns, due to the activation of the proposed airspace design for those short, notified periods would be the purview of EUROCONTROL Network Management. New market entrants' (including space actors') monetary contributions to airspace regulators is outside the purview of the UK's ACP process.</p> <p><b>Q11.</b> The identification of the peak hour of the peak day and resultant data and calculations were set out clearly in the <a href="#">Full Options Appraisal</a>, Paras 15-37. As offered at the <a href="#">Full Options Appraisal</a>, Paras 25-28, the rerouting methodology employed was not complex and acknowledged that "<i>computations associated with a more detailed analysis are too numerate and, undoubtedly, would be influenced by - inter alia - the prevailing meteorological conditions, ATM route loading and airline routing policies/strategies. Similarly, "flights' routes would be planned on the ground, prior to departure, to accommodate known airspace reservations and constraints across the whole route of the flights' routes".</i> The ADS-B data source remains subject to International Trade in Arms Regulation (ITAR). SaxaVord seeks to minimise impact on other airspace users by identifying and selecting suitable launch windows of the minimum duration required; any shift in traffic patterns, due to the activation of the proposed airspace design for those short, notified periods would be the purview of EUROCONTROL Network Management.</p> <p><i>[Continued Overleaf]</i></p>							

ID13	Sponsor's Remarks/Comments (contd)		
			<p><b>Q12.</b> SaxaVord is acutely aware of the far-reaching implications of space launch operations from The Shetland Islands and continues to engage with all relevant parties - national, international and EUROCONTROL. In the UK, the CAA is the space regulator, with whom SaxaVord continue to engage at every step of - <i>inter alia</i> - the spaceport licencing and ACP processes. Any shift in traffic patterns, due to the activation of the proposed airspace design for those short, notified periods would be the purview of EUROCONTROL Network Management. New market entrants' (including space actors') monetary contributions to airspace regulators and ANSPs is outside the purview of the UK's ACP process. Reference to ICAO is noted: "ICAO [...] established to help countries share their skies to their mutual benefit".<sup>2</sup></p> <p><b>Q13.</b> Covered by extant MOU between HMG and Government of Iceland and marine licensing processes.</p> <p><b>Q16.</b> The "strongly object" at Q15 is noted. We must guard against confusing permanence of the proposed airspace reservation (i.e. within an AIP) with permanence of activation. The observation about the "system's" preparedness "for [a] permanent area [for] space rocket [launches]" is noted. The EUROCONTROL Network (i.e. the system) has a strong pedigree in managing airspace reservations safely and successfully. These and other space-launch- related ACPs are the very means of engaging and consulting all of the relevant parties and stakeholders increase understanding on all sides. Launches will not be conducted <i>ad hoc</i> but scheduled and notified appropriately to the relevant parties.</p> <p>The proposed design builds in flexibility of use of the airspace, to manage the known differing LVs' requirements at this stage; as the space industry and, in turn, SaxaVord's understanding of LV's airspace requirements continues to mature, so too might the airspace design. Further LV maturation coupled with Stage 7 PIR data and results would be the catalysts for a future design iteration (either a reduction or an expansion), which would involve an associated ACP, if required. Similarly, Stage 7 activities could identify a need to amend, refine and update notification and coordination procedures, including LOAs and MOUs.</p>

2. ICAO (2023), "About ICAO" ([online](#)), accessed on 23 Jun 23.

ID14	Q1		Q2	Individual	Q3		Q4		Q5		Q6	[N/A]
	Q7	Non-aviation stakeholder	Q8	Neutral	Q9	I am not qualified to answer. Most islanders who will be affected by this development are also not qualified to answer. This is not a real consultation if those being consulted do not have the expertise to express an opinion. It is also a flawed consultation when it is only accessible by QR code as a large proportion of the local population cannot access the survey that way. Therefore the survey excludes large numbers of stakeholders. The website survey was not accessible						
	Q10	Communication with the local population is critical. There is almost no communication. In truth local people are being treated with contempt. This is unacceptable. The Spaceport no longer has the excuse of Covid. Regular public meetings are essential. Regular newsletter updates are essential. How can there be explosions at the airstrip without islanders, and especially near neighbours, being warned and informed. There are animals in the parks but no consideration has been given to this. It is unacceptable.										
	Q11	No comment. This 'public consultation' is a nonsense. How can the public respond?				Q12	No comment. See above					
	Q13	It seems to me that the Spaceport is continuing to act as it chooses, without due care and attention to many aspects of the local and wildlife populations. Operating principles are being sidestepped on a regular basis, I'm told. I cannot comment on proposed permanent airspace reservation. It's not possible for ordinary folk to know about these things				Q14	Saxa Vord [sic] needs to stop taking advantage of the goodwill and lack of expertise of the local population. There needs to be more respect and regular communication with locals. Many folk are turning against this development as they are fed up with the rude attitudes and complete disregard for civility of the people in charge. This rudeness and contempt are unacceptable					
	Q15	Neutral			Q16	More communication is essential. Stop the rudeness						
ID14	Sponsor Categorisation, Assessment and Remarks/Comments											
	Response Might Impact Proposed Design and ACP Submission			Response Does Not Impact ACP		Sponsor's Remarks/Comments						
				✓		<p><b>Categorisation.</b> Response does not impact the ACP.</p> <p>Respondent is "Neutral" about (and, therefore, does not object to) the sufficiency of the airspace design and offers no actionable feedback on the proposed airspace design.</p> <p>Comments at Qs 9, 10, 11, 13, 14 and 16 are acknowledged and noted. SaxaVord agrees that communication is indeed critical to all parties and acknowledges a level of frustration from the respondent.</p> <p>SaxaVord engages the local community on Unst (and wider) routinely through a variety of means - both electronic and physical - and proactively encourages local residents to take the opportunity to contact and engage with the spaceport. SaxaVord continues to engage locally on a regular basis, conducting periodic "town halls", newsletters and broadcast interviews, and regularly hosts bilateral and group visits and meetings at the spaceport to discuss the latter's developments and forthcoming activities.</p> <p>There has been extensive formal (i.e. statutory) public communication, engagement and consultation on a number of key spaceport activities, most notably, the planning application and environmental assessment, which actively sought and received stakeholder feedback and responses. Similar communications methodologies were applied to the recent airspace change consultation.</p> <p>Consultation activities on the SaxaVord airspace change proposal included leaflet drops to all households on the island of Unst, which included not only the QR code to which the respondent refers, but also a telephone number to enable local residents to get in touch with SaxaVord if they wished to discuss further any aspect of the proposed airspace design. Stakeholder consultation materials also cited the spaceport's postal address and a contact email address for those seeking to either discuss the proposed airspace design bilaterally, or receive print versions of the associated materials and/or survey questionnaire.</p> <p>The recent consultation activity was highlighted to local residents and stakeholders through print media (local newspapers), local radio and at local community meetings (such as those of the Unst Partnership). In addition, leaflets were made available at public venues, such as shops and libraries.</p> <p>In its future ACP-related and wider engagements and/or consultations, SaxaVord will continue to proactively seek and employ the most appropriate methods of communication, engagement and consultation to ensure that local residents and, indeed, all stakeholders are aware of and continue to have every opportunity to engage proactively with the spaceport. Where alternative communication formats and/or means are required, SaxaVord will continue to meet local residents' and stakeholders' communication, engagement and consultation needs.</p>						

ID15	Q1		Q2	Organisation	Q3		Q4		Q5		Q6	Head of Systems Engineering	
	Q7	Aviation stakeholder	Q8	Neutral	Q9	Sutherland Spaceport does not see enough evidence for safety/risk impacts of launch operations from Saxavord to either support or object to the statement that the size of airspace adequately protects other airspace users.							
	Q10	Due to similar airspace usage and potentially overlapping launch windows, Sutherland Spaceport recognises the potential for range and airspace activation conflicts, and expects the CAA to establish processes for adjudicating any airspace clashes should they arise.											
	Q11	None				Q12	None						
	Q13	None				Q14	None						
	Q15	Neutral			Q16	The airspace change proposal is expected to have limited impact on spaceflight operations from Sutherland Spaceport, provided the CAA manages to appropriately arbitrate temporal and spatial airspace usage between UK Spaceports.							
ID15	Sponsor Categorisation, Assessment and Remarks/Comments												
	Response Might Impact Proposed Design and ACP Submission			Response Does Not Impact ACP	Sponsor's Remarks/Comments								
	Impact	No Impact											
				✓	<p><b>Categorisation.</b> Response does not impact the ACP.</p> <p>Respondent is "Neutral" about (and, therefore, does not object to) the sufficiency of the airspace design.</p> <p>Q9. Comment is noted.</p> <p>Q10. Comments are noted.</p> <p>Q16. Comments are noted.</p>								

ID16	Q1	Q2	Q3	Q4	Q5	Q6
	Q7	Aviation stakeholder	Q8	Agree	Q9	There is a clear intent to provide levels of flexibility to the area required to be segregated, therefore minimising impact to other airspace users. We have also provided some comments on the number and design of boxes later in the response.
	Q10	<p>1. The traffic analysis provided does not appear to take into account the impact of unit charging on operators. The proposed rerouting options available are likely to have a financial impact on aircraft operators and ANSPs.</p> <p>2. We would welcome an explanation as to the extent of the areas that will need to be activated per launch. The orientation of the boxes also does not lend itself to activating minimum airspace as they as defined North-South.</p> <p>3. We believe that areas defined along trajectories would resolve this issue. We intended to show an edited version of Slide 26 as an example; however, we recognise that diagrams are unable to be displayed in this on-line format, so NATS will also provide a separate PDF version of our response which includes the edited slide.</p> <p>4. Appendix 2 slide 26. We are not clear why the areas are symmetrical either side of the trajectory line? For example, is area T needed, as there is no comparable area west of the line.</p>				
	Q11	<p>1. It is noted that the "launch window" is intended to be of one hour duration. However, it remains to be understood what time window, in ASM terms, will need to be applied to the segregation. Clarity on that would be welcome</p> <p>2. In the UK ASM is underpinned by the Joint and integrated concept between NATS, the CAA and the MoD. This governance structure does not cater for commercial use of SUA at present.</p> <p>- The CAA delegates responsibility for ensuring the most efficient use of airspace to the civil Airspace Manager and the Military Airspace Manager through CAP740. This provides the necessary expertise to conduct Collaborative Decision Making to ensure the the MoD can deliver defence capability whilst minimising the impact of segregating airspace on the ATM Network. The AMC do not have the expertise, governance or authority to segregate airspace for the commercial benefit of other airspace users.</p> <p>- It is not clear in the consultation who is expected to manage the airspace on behalf of SaxaVord? Currently the MoD provide resource within the AMC to provide this function for the MoD.</p>		Q12	<p>The dynamics of three States/ANSPs being involved could become complex. Clarity on the mechanisms required for an optimised operating environment is welcome</p>	
	Q13	No comment		Q14	<p>Flight Plan Buffer Zones (FBZs) will be required to be designed too. This needs to be reflected in this document. Please also see later comments on management of activations etc</p>	
	Q15	Support	Q16	<p>The design demonstrates Flexible Use of Airspace (FUA) principles which are aligned with the UK Airspace Modernisation Strategy (AMS). We have also taken the opportunity to provide a set of general comments for your attention:</p> <p>1. The 2019 pre-COVID traffic modelling undertaken does not reflect the traffic flows that have evolved due to the avoidance of Russian airspace. In particular there are Polar flows that would not have been present in the same volume as they are today. (e.g. Japan-North Europe). The impact on these flows would need to be assessed as it already has a greatly extended track over optimal flight planned distance.</p> <p>2. Whilst it is appreciated that the sponsor has tried to introduce the maximum amount of flexibility by sub-dividing the proposed area into boxes, the activation of which would match the smallest airspace volume required to contain differing rocket launch profiles, the overall use of 30 segments leads to a high degree of complexity.</p> <p>a. The maximum number of Danger Area segments is 25; the use of 30 would therefore require 2 danger areas to be instigated to accommodate the proposal. With that said only 3 segments – although delegated ATS arrangements would also need to be taken into account – would currently reside within UK airspace with the remainder in Icelandic or Norwegian areas of responsibility It would therefore be a requirement to understand the designation of the airspace volumes across the 3 states involved in order that a cohesive activation process could be devised.</p> <p>b. Notwithstanding the above, whilst providing granularity and flexibility with a segmented approach, consideration should be given to reducing the overall number, not least as this becomes difficult to promulgate and could introduce confusion and errors; these will also be required to be displayed on RDP which could lead to a distracting and cluttered picture.</p> <p>c. The methodology to be used for the activation and de-activation of the area requires further understanding (we are not sure to what extent UK AMC may have been involved in discussion), it is assumed that a single AMC will be responsible for activation and deactivation, co-ordinating between the UK, Iceland and Norway as well as the EU Network Manager via an integrated AUP/UUP for the 3 states.</p> <p>This would need to be established; as well as a FUA restriction for all the segments. It is also assumed that activations could happen on weekends, which would require appropriate resource to achieve a safe process.</p> <p>3. If there is a restriction built to accommodate this launch then a Lead AMC, which we would expect to be the UK, will be established and coordination procedures agreed between key stakeholders in advance.</p> <p>Early notification of dates is required for NATS to work with Network Manager to test the restriction(s) and develop strategies to minimise disruption to the network. The activation would be added to the UK AUP but form part of the eAUP which combines all AUP's within the zone.</p> <p>4. ACP Slide 25. Given recent experience with other orbital launches we are keen to understand how such a small area can be activated for the example shown in slide 25. Is failure of a launch vehicle covered and can air traffic route 'under the line'?</p> <p><i>[Continued overleaf]</i></p>		

ID16 (contd)			Q16 (contd)	<p>5. Full Options Appraisal: Appendix 1, Table on page 1-7 This suggests that there is no financial impact to ANSP operations or infrastructure etc. For such activities, there is always a cost in terms of adaptation, training and additional workload as well as associated activities which also cost time, money and resource. We suggest that this table is amended to reflect this.</p> <p>6. Slide 7 (ACP): Slide assumes FRA starts at FL 195 +, however, FRA starts above FL255 in the UK and FL135 in Norway. We believe Iceland and Oceanic is FL55. Slide needs to be amended to correctly refer to the lower vertical limits of FRA.</p> <p>7. Full Options Appraisal: Para 37- Fuel burn impact described as a % of the entire flight could be misleading. We suggest this is better presented as a comparison between fuel burn/CO2 (kg) between the activated and non-activated states.</p> <p>8. Full Options Appraisal: Table 2 fuel numbers do not look right: 27670 tonnes fuel *9.61 kg/km fuel gives a total distance ~2660000km (3dp) not 2880000k- please can you confirm if this is correct?</p> <p>9. Slide 36 the ACP document states that no flights below 7,000, however Pages 25/26 of the Full Options Appraisal states at most 2 in an h, 6 in a day, please can you confirm which is correct?</p> <p>10. Aircraft could already utilise the shorter route through UK Airspace, therefore what is the sponsors rationale behind aircraft choosing this as their option when the activation of the Danger Area takes place? Aircraft may still choose to fly around; however, it doesn't appear that this option has been explored or the environmental impact assessed.</p> <p>11. Full Options Appraisal: Paras 59 and 60 - We believe there is an incorrect assumption regarding traffic below 7000'. The identified flights are likely to be commercial offshore helicopters in support of the offshore energy industry, operating IFR. Depending on the destination, rerouting may not be a possibility therefore delay or cancellation of the flight may be required. However, it should be noted there are currently no fixed offshore assets within the lateral confines of the proposed airspace, but mobile exploration rigs can operate within those areas.</p> <p>12. Activation of the volumes should include procedures for reacting to SAR and safety of life flights.</p>
ID16	Sponsor Categorisation, Assessment and Remarks/Comments			
Response Might Impact Proposed Design and ACP Submission		Response Does Not Impact ACP	Sponsor's Remarks/Comments	
Impact	No Impact			
	✓		<p><b>Categorisation.</b> Response does not impact the ACP.</p> <p>Respondent agrees with the sufficiency of the proposed airspace design and supports the proposal.</p> <p><b>Q10.</b></p> <ol style="list-style-type: none"> <li>SaxaVord seeks to minimise impact on other airspace users by identifying and selecting suitable launch windows of the minimum duration required; any shift in traffic patterns, due to the activation of the proposed airspace design for those short, notified periods would be the purview of EUROCONTROL Network Management.</li> <li><a href="#">Consultation Materials</a>, Slide 23 offers explanatory comment: "To assist stakeholders' understanding of Design Option 3, SaxaVord has included the diagrams that follow to offer illustrative segmentation for representative launch profiles to demonstrate how Design Option 3 might be tailored to provide a suitable launch area to accommodate a specific licenced LV and launch operation". <a href="#">Consultation Materials</a>, Slide 25-32, offers further pictorial representation of exemplar airspace utilisation for different launch profiles.</li> </ol> <p>Whilst segmenting along radial bearings (i.e. trajectories) might favour SSO launches, such a methodology would not necessarily satisfy sub-orbital launch profiles. At this stage, the examples of airspace utilisation by individual launch profile can only be illustrative; the exact airspace requirement will be defined by the individual launch operator's safety analysis and corresponding licence application.</p> <p>The proposed airspace reservation seeks to cater for both SSO and sub-orbital launch profiles. One could indeed posit that "Area Y" in Slide 26 might well be superfluous for the exemplar SSO launch, but, if not utilised, what benefit would Area Y be to the wider airspace network, with the remainder of the volume active for launch operations; moreover, the resultant shape would also be more complex.</p> <p>SaxaVord's aim is to offer an airspace reservation volume that meets the LV's specific requirements, while minimising impact and complexity on airspace users; <a href="#">ACP-2017-079 Full Options Appraisal</a>, Page 3, Paras 12 and 13 (<i>et al</i>) and <a href="#">Consultation Materials</a>, Slide 14, refer. Thus, the proposed design solution proffered at Stage 3 seeks to not only minimise potential impact, but also reduce complexity.</p> <ol style="list-style-type: none"> <li>See response at Serial 2, above, which also responds to the supplementary email and PDF from NATS provided at Appendix 6.</li> <li>See response at Serial 2, above.</li> </ol> <p><i>[Continued Overleaf]</i></p>	

ID16	Sponsor Categorisation, Assessment and Remarks/Comments (contd)			Sponsor's Remarks/Comments (contd)
				<p><b>Q11.</b></p> <ol style="list-style-type: none"> <li>1. Notification and coordination procedures continue to be discussed between SaxaVord and the relevant parties. As is currently the case with already established airspace reservations (SUAs), we understand that the application of any temporal flight plan buffer zones is the purview of EUROCONTROL network management to ensure the safe and expedient flow of air traffic commensurate with the individual member states' Airspace Utilisation Plans.</li> <li>2. The comment is acknowledged. CAP740 offers that "[t]emporary airspace structures and those structures wishing to be utilised by new entrants or commercial entities are dealt with on a case-by case basis whilst revised policy is drafted".<sup>3</sup> SaxaVord, therefore, awaits CAA's decision and resultant policy guidance.             <ul style="list-style-type: none"> <li>- The subsequent bullet points may only be addressed upon receipt of the appropriate CAA decision and policy guidance.<sup>4</sup></li> </ul> </li> </ol> <p><b>Q12.</b> The dynamics of multiple states and their respective ANSPs can indeed be complex - both operationally and politically, but not insurmountable; currently, SaxaVord is engaging the relevant parties (UK and non-UK) to progress the appropriate LOAs and MOUs to ensure that the appropriate notification and coordination measures can be agreed. Such engagements with non-UK actors are supported by EUROCONTROL (Network Management).</p> <p><b>Q14.</b> We understand that the application of any temporal flight plan buffer zones is the purview of EUROCONTROL network management to ensure the safe and expedient flow of air traffic commensurate with the individual member states' Airspace Utilisation Plans.</p> <p><b>Q16.</b></p> <ol style="list-style-type: none"> <li>1. Comment acknowledged. Given the recent global "upheavals" (i.e. COVID19 and the conflict in Ukraine), the most stable data set available was for the period January to December 2019.</li> <li>2. See Response to Q10 (Serial 2), above.             <ol style="list-style-type: none"> <li>a. LOAs and MOUs between SaxaVord and the relevant parties are progressing. Individual requirements from those parties can and should be raised in the corresponding discussions for inclusion in the LOA/MOU. SaxaVord acknowledges that a shift in air traffic patterns could impact an ANSP's resource requirements for the duration of small, pre-notified launch window(s), as do other airspace reservations and aerial activities. SaxaVord would seek to understand the provenance of the maximum number of danger area segments quoted.</li> <li>b. Comments acknowledged. Whilst a reduction in the number of internal segments could offer a reduction in some of the observed complexity, SaxaVord believes that such a reduction for the exemplar launch profiles offered could drive a corresponding increase in impact to the network and, in turn, other airspace users.</li> <li>c. The proposed airspace reservation would be activated and deactivated by NOTAM. We also believe that the UK AMC would be responsible for including the activation and deactivation of the proposed airspace reservation in the UK AUP.</li> </ol> </li> <li>3. Comment acknowledged. Advance notification is being articulated within LOAs/MOUs already in development between SaxaVord and the relevant (UK and non-UK) parties. SaxaVord awaits CAA's CAP740-related decision and resultant policy guidance.<sup>5</sup> SaxaVord remains cognisant of the relationship between UK AUP and eAUP. In addition, SaxaVord is in regular communication with EUROCONTROL (Network Management).</li> <li>4. The reduced proportionate airspace volume of airspace that may be suitable for an orbital LV reflects both its maturity, active guidance, and FTS, trajectory and SIA launch operator licence requirements both nominal and off-nominal events. The example given is illustrative and is intended to show the minimum airspace that may be activated. Note – another illustrative example of a launch that might use the minimum airspace would be a small suborbital LV for which the entire trajectory and impact dispersion area is contained within this minimum airspace volume.</li> <li>5. SaxaVord acknowledges that a shift in air traffic patterns could impact an ANSP's resource requirements for the duration of small, pre-notified launch window(s), as do other airspace reservations and aerial activities. SaxaVord understands that ANSPs must adapt to (and, therefore, meet any adaptation requirements of) periodic changes to the national AIP, associated with the publicised AIRAC cycle. SaxaVord is keen to understand what <i>additional</i> training is required to accommodate the proposed airspace design over and above the routine activation and deactivation of existing SUAs within UK FIRs/UIRs. SaxaVord will amend the corresponding entry in its Final Options Appraisal to reflect the overall tenor of foregoing.</li> <li>6. Comment acknowledged.</li> <li>7. We assume that this refers to the airspace reservation's "status". <a href="#">Full Options Appraisal</a>, Para 36 read in conjunction with Para 37 addresses this comment.</li> <li>8. Comment acknowledged. The numbers and associated calculations at <a href="#">Full Options Appraisal</a>, Table 2, are correct. The "Total Baseline Fuel Burn (tonnes) Per Annum" multiplied by "Fuel Burn(kg)/km" does not equal "Total Baseline Distance Flown (km) Per Annum". The "Total Baseline Distance Flown (km) Per Annum" is calculated by multiplying "Total Baseline Distance Flown (km) Per Peak Hour" (i.e. 96,000) by "No of Instances Per Annum" (i.e. 30), which equals 2,880,000.</li> <li>9. Slide 36 states that "On the peak day and hour (13 Aug 19 between 1300 and 1400UTC), all traffic was traveling broadly east-west and <u>the 12 flights were at or above FL280</u>; [...therefore, on the peak day, t]here was no identified traffic at 7,000ft or below". The <a href="#">Full Options Appraisal</a>, Para 57, outlines that a different search parameter was applied "analysing the year's traffic data <u>solely for aircraft operating below 7,000ft AMSL</u>"; Paras 58-60 expand on this different peak day for flights below 7,000ft AMSL.</li> </ol> <p><i>[Continued Overleaf]</i></p>

3. CAP740, Chapter 1, Para 1.14 ([online](#)) accessed on 27 Jun 23.

4. *ibid.*

5. *ibid.*



ID16	Sponsor Categorisation, Assessment and Remarks/Comments (contd)			Sponsor's Remarks/Comments (contd)
				<p>10. Comment acknowledged. As offered at the Full Options Appraisal, Paras 25-28, the rerouting methodology employed was not complex and acknowledged that "computations associated with a more detailed analysis are too numerate and, undoubtedly, would be influenced by - <i>inter alia</i> - the prevailing meteorological conditions, ATM route loading and airline routing policies/strategies. Similarly, "flights' routes would be planned on the ground, prior to departure, to accommodate known airspace reservations and constraints across the whole route of the flights' routes". Subject to successful ACP progression beyond Stage 5, the airspace volume data will be passed to EUROCONTROL to be input into the Network Management simulation.</p> <p>11. Noted; one could posit that the key assumption is that such flights "[...] could adjust their flight profiles and schedules to deconflict with the activation of the [...proposed airspace design]".</p> <p>12. Comment acknowledged. Currently, SaxaVord is in well progressed discussion and engagement with local SAR and air ambulance helicopter operators; the corresponding LOAs/MOUs (with corresponding access coordination procedures) are in train.</p>

ID17	Q1	Q2	Q3	Q4	Q5	Q6
		Individual				N/A
	Q7	Non-aviation stakeholder	Q8	Strongly disagree	Q9	Unst is directly under the route taken by a number of international flights during both daytime and night-time.
	Q10	Lift the restrictions of access to all parts of Lambaness.				
	Q11	More detailed information on what the buildings and the restricted areas are being used for now and in the future. Identification of which companies work in, or own, each of the buildings. All communications should be via letters or circulars, as not everyone has access to email, especially in Unst.			Q12	No feedback.
	Q13	No feedback.			Q14	More details of this permanent change given to the public - especially residents in Unst - via letter or meetings.
	Q15	Strongly Object		Q16	Lambaness, formerly a wild headland, is being desecrated - its historic importance, geological structures, disruption to birds, uprooted of plant life, all already badly damaged.	

ID17	Sponsor Categorisation, Assessment and Remarks/Comments			Sponsor's Remarks/Comments
	Response Might Impact Proposed Design and ACP Submission		Response Does Not Impact ACP	Sponsor's Remarks/Comments
	Impact	No Impact		
			✓	<p><b>Categorisation.</b> Response does not impact the ACP.</p> <p>Respondent's strong disagreement at Qs 8&amp;9 appears not to consider the overarching concept of safety by exclusion afforded by the proposed airspace reservation, as highlighted in the consultation materials and options appraisal.</p> <p>Respondent's strong objection at Q15 and comments at Q16 are focused on the planning and associated environmental impacts of the spaceport, as opposed to the airspace design.</p> <p>There has been extensive public communication and engagement on this issue and the consultation was publicised widely through social media, print media, leaflet drops and local radio.</p>

Table 3 - ACP-2017-079 Stage 3 Stakeholder Full Responses

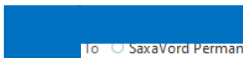
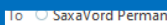
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Appendix 6 to  
ACP-2017-079 Stage 3 Consultation Report  
Dated 13 Jul 23

ACP-2017-079 STAGE 3 STAKEHOLDER EMAIL RESPONSES


British Gliding Association

RE: SAXAVORD SPACEPORT AIRSPACE RESERVATION APPLICATION (ACP-2017-079) - STAKEHOLDER CONSULTATION

@gliding.co.uk>  
to  SaxaVord Permanent ACP

  Reply  Reply All  Forward 

Tue 18/04/2023 16:12

 Follow up. Start by 24 April 2023. Due by 24 April 2023.  
You replied to this message on 02/05/2023 11:48.

Thanks for the engagement.

This ACP does not impact UK gliding operations. Therefore, we have no comments.

Kind regards



BGA

Sponsor Categorisation, Assessment and Remarks/Comments.

Response Might Impact Proposed Design and ACP Submission		Response Does Not Impact ACP
Impact	No Impact	
		✓
Sponsor's Remarks/Comments		
Categorisation. Response does not impact the ACP.		

NATS

RE: SAXAVORD SPACEPORT AIRSPACE RESERVATION APPLICATION (ACP-2017-079) - STAKEHOLDER CONSULTATION

To: [Redacted]@nats.co.uk  
 Cc: SaxaVord Permanent ACP [Redacted]

Reply Reply All Forward  
 Mon 12/06/2023 18:01

Good afternoon,

Thank you for providing NATS the opportunity to comment on your ACP and Full Options Appraisal Document. I have now completed the on-line survey. We note that the on-line response does not allow for making additional general comments, therefore, in the survey I have added these comments to the response to Q16.

Additionally, in Q10, we have made direct comments against slide 26 on two occasions. In the first comment (3) we have edited the slide to support our comment but unfortunately the on-line format does not allow us to insert the picture. Therefore, in addition to completing the survey we have also provided the example below.

Please do not hesitate contact me if you have any questions about our response.

Rgds

[Redacted]

10. SaxaVord is keen to mitigate the impact of its operation on its stakeholders. What mitigations would you suggest that could ameliorate any concern(s) that you/your organisation might have?

Please comment on potential mitigation solutions that you/your organisation might have.

The orientation of the boxes also does not lend itself to activating minimum airspace as they as defined North-South. We believe that areas defined along trajectories would resolve this issue.

One of the examples given is shown below.



Sponsor Categorisation, Assessment and Remarks/Comments.

Response Might Impact Proposed Design and ACP Submission		Response Does Not Impact ACP
Impact	No Impact	
		✓
Sponsor's Remarks/Comments		
Categorisation. Response does not impact the ACP.		
See corresponding comments at Appendix 5, ID16.		

## National Lighthouse Board

RE: [EXT] SAXAVORD SPACEPORT AIRSPACE RESERVATION APPLICATION (ACP-2017-079) - STAKEHOLDER CONSULTATION

[Redacted]@nlb.org.uk  
to SaxaVord Permanent ACP

☺ Reply Reply All Forward ...

Wed 24/05/2023 16:59

Dear Shetland Spacecentre Ltd,

Thank you for consulting with the Northern Lighthouse Board regarding the CAP1616 Stage 3 of the proposed air space change ACP-2017-079 in the area of SaxaVord Spaceport, Unst, Shetland.

Northern Lighthouse Board are supportive of the proposed activities and have forwarded your consultation request to our aircraft supplier (PDG Helicopters) to ensure we are appropriately represented.

We look forward to your Stage 4 stakeholder consultation in due course.

Please come back to me if you need further assistance in the meantime.

Best wishes,

Gillian

Official - Northern Lighthouse Board Email

[Redacted]  
Navigation Officer

NLB Navigation, 84 George Street, Edinburgh, EH2 3DA

[Redacted]@nlb.org.uk

[www.nlb.org.uk](http://www.nlb.org.uk)

## Sponsor Categorisation, Assessment and Remarks/Comments.

Response Might Impact Proposed Design and ACP Submission		Response Does Not Impact ACP
Impact	No Impact	
		✓
Sponsor's Remarks/Comments		
Categorisation. Response does not impact the ACP.		

Nature Scotland

SCOTTISH NATURAL HERITAGE RESPONSE

[Redacted] @nature.scot >

☺ Reply Reply All Forward ⋮

Tue 25/04/2023 11:29

To: Saxavord Permanent ACP

Follow up. Completed on 02 May 2023.  
You replied to this message on 02/05/2023 12:07.

Dear sir

Thank you for consulting us over this proposal. The airspace change is unlikely to have a significant effect on matters within NatureScot's remit.

Regards

[Redacted]

[Redacted] Operations Officer - North

NatureScot | Stewart Building, Alexandra Wharf, Lerwick ZE1 0LL | [Redacted]

[nature.scot](http://nature.scot) | [@nature\\_scot](https://twitter.com/nature_scot) | Scotland's Nature Agency | Buidheann Nàdair na h-Alba

Sponsor Categorisation, Assessment and Remarks/Comments.






Response Might Impact Proposed Design and ACP Submission		Response Does Not Impact ACP
Impact	No Impact	
		✓
Sponsor's Remarks/Comments		
Categorisation. Response does not impact the ACP.		

## North Sea Transition Authority


RE: SAXAVORD SPACEPORT AIRSPACE RESERVATION APPLICATION (ACP-2017-079) - STAKEHOLDER CONSULTATION



NSTA Correspondence <correspondence@nstauthority.co.uk>  
To: SaxaVord Permanent ACP


 Reply
  Reply All
  Forward
 

Mon 24/04/2023 16:39

 Follow up. Start by 24 April 2023. Due by 24 April 2023.

Start your reply all with:
 


 Feedback

Dear Sirs/Madams

Thank you for your email to the North Sea Transition Authority of 18 April 2023.

We can advise that we have nothing further to add to our previous email, of 6 September 2022.

Kind regards

North Sea Transition Authority

### Sponsor Categorisation, Assessment and Remarks/Comments.

Response Might Impact Proposed Design and ACP Submission		Response Does Not Impact ACP
Impact	No Impact	
		✓
Sponsor's Remarks/Comments		
Categorisation. Response does not impact the ACP.		

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