Space Hub Sutherland Revised Environmental Design Principle Stakeholder Engagement

Responses Received by Date:

10th December 2019

Honorable Company of Air Pilots

Dear

We have nothing to add in terms of comment on your revised design principles. Since your additional questions are largely local, it would not b3 appropriate for us to comment.

We believe the UK future approach to airspace management will be based on sharing rather segregation. Therefore it might help if, in future development of your ACP, to indicate how launch airspace really will be closed for minimum duration, rather than closed in anticipation of an impending (but delayed) launch.

Regards,



Highlands and Islands Airports Limited (HIAL)



Many thanks for this.

The only comment I have is from Page 16 in the ANSP engagement box it should read as follows please:-

Highlands and Islands Airports (HIAL) Representing Wick (John O'Groats), Inverness, Kirkwall and Sumburgh Airports.

Best Regards



ATM Project Manager
ATMS Programme
Highlands and Islands Airports Limited
Great Glen House, Leachkin Rd , Inverness IV3 8NW
(Mobile) (Desk)

www.hial.co.uk

To register interest in the ATMS Programme procurement process, please visit: https://bit.ly/2EzE35f

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Tha am post-d seo (agus faidhle neo ceanglan còmhla ris) dhan neach neo luchd-ainmichte a-mhàin. Chan eil e ceadaichte a chleachdadh ann an dòigh sam bith, a' toirt a-steach còraichean, foillseachadh neo sgaoileadh, gun chead. Ma 's e is gun d'fhuair s bh seo gun fhiosd', bu choir cur às dhan phost-d agus lethbhreac sam bith air an t-siostam agaibh agus fios a leigeil chun neach a sgaoil am post-d gun dàil.

Dh'fhaodadh gum bi teachdaireachd sam bith bho Puirt-adhair na Gàidhealtachd is nan Eilean Earranta air a chlàradh neo air a sgrùdadh airson dearbhadh gu bheil an siostam ag obair gu h-èifeachdach neo airson adhbhar laghail eile. Dh'fhaodadh nach eil beachdan anns a' phost-d seo co-ionann ri beachdan Puirt-adhair na Gàidhealtachd is nan Eilean Earranta.

British Microlite Association

Please find enclosed the BMAA response to CAP1616 Design Principles Consultations

CE

British Microlight Aircraft Association



This e-mail is for the intended recipient only. If obtained in error, please delete and notify the sender.

British Microlight Aircraft Association Policy for Design Principles during ACP engagement

Introduction

The following text describes the underlying principles that the British Microlight Aircraft Association (BMAA) believes must be followed by applicants for airspace change proposals.

Consultation

- 1. The BMAA welcomes the opportunity to engage in consultation at an early stage within the ACP CAP 1616 process.
- 2. Sponsors are encouraged to engage with the BMAA and its members as early as possible during the development of the ACP. Previous ACPs have missed the opportunity for early engagement and dialogue resulting in significant and costly delays.

Airspace classification

- 1. The BMAA considers that the UK airspace's default classification is G and that sponsors must establish a safety case for proposing to change this class or add any further restrictions or requirements by their ACP.
- 2. All sponsors must demonstrate that alternatives have been considered such as RMZ and TMZ before considering controlled airspace.
- 3. Where Class E is proposed, without a TMZ or RMZ should be considered as the default option.

Access by GA

- 1. Sponsors must accept the assumption that GA including sporting and recreational aviation is entitled to continued safe use of airspace and that commercial aviation does not have a right to limit airspace access.
- 2. Sponsors should ensure that there will be measures to allow flexible use of airspace and prepare for the wider use of electronic conspicuity devices and interoperability with existing e-conspicuity, e.g. FLARM and Pilot Aware etc... **Airspace volume**
- 1. In line with the principles of the Airspace Modernisation (was FAS) principles the ACP must respect the requirement for minimum airspace volumes designed for efficiency and reduced environmental impact. These principles will include:
- Minimum size of controlled airspace
- Minimum number of departure/arrival routes
- ② Steeper and continuous climbs and descents for cost and environmental benefits as well as minimisation of CAS footprint.

Justification

- 1. Sponsors must conduct and present proper analysis of overall airspace safety changes i.e. based on modelling and evidence rather than purely subjective opinion.
- 2. Sponsors must provide proper validation of forecast traffic levels. There is an expectation that data used, particularly forecasts, will be verifiable including details of any and all assumptions.

Airspace integration

- 1. Sponsors must show how they are integrating their proposal within the overall UK airspace modernisation context, for example proposals which do not connect efficiently between upper and lower airspace (potentially under different airspace "management") would only inhibit overall airspace efficiency and therefore not receive our support)
- 2. Optimisation of the development work above and below the 7,000ft NATS en-route split.

Scottish Natural Heritage

Dear

Thank you for sending us the "Space Hub Sutherland Step 1B, Design Principles" document for comment. We note this relates solely to options for airspace change.

Our comments are:

- Design Principle 8 we understand that the re-routing of aircraft will not result in an increase in low flying, however it does have the potential to result in the diversion of low-flying over the sensitive areas we've previously outlined. However, we have no information on what the likely scale of the change is likely to be. If you could provide some information on the likely number of flights which will be diverted and where they will be diverted to, then we will be able to advise further on the significance of the change. In addition, the wording on which the justification for the removal of low-flying from the Design Principle is based is not robust, "HIAL commented they should be able to assist with considerations of the low-level air traffic.". So, if there was found to be a significant increase in low-flying over sensitive areas, then the wording as currently set out wouldn't provide sufficient mitigation.
- Design Principle 11 while we agree that the purpose of the CAA's consideration of the ACP is not to consider the environmental impact of launches, we would question where the environmental impacts of changes to the use of the airspace as a result of the proposal will be considered if not here. This relates to the point above.

Please let me know if further clarification is required.

Best wishes

| Area Officer

Scottish Natural Heritage | The Links | Golspie Business Park | Golspie | Sutherland | KW10 6UB |

Dualchas Nàdair na h-Alba | A' Mhachair | Pàirc Gnothachais Ghoillspidh | Goillspidh | Cataibh | KW10 6UB nature.scot – Connecting People and Nature in Scotland – @nature scot

Response Received 18th December 2019 NATS

Dear

I have reviewed the document provided on behalf of NATS (Prestwick); In general, the principles that have been articulated reflect those highlighted by NATS in its original response.

You have however, specifically requested input around the Environmental Design Principles. In this aspect you have referenced an ACP decision in relation to MOD Hebrides Range in 2014. It should be noted that this ACP would have been undertaken under the old CAP 725 process and your ACP is being undertaken under CAP 1616, which requires greater consideration of environmental impact. Moreover, within CAP 1616 there are types of ACP relating specifically to the MOD (M1 and M2) where the CAA is required to set aside the environmental impact associated to MOD operations in its decision making process, instead requiring the environmental impact associated to those affected by the change to be taken into account.

This in essence is what you are trying to achieve by rewording design Principle 11 "The proposal will seek, where possible, to minimise CO2 emissions and fuel burn due to re-routing, flight plan mileage and associated fuel burn of other airspace users". NATS is content with this approach, as it would seek to identify the impact to commercial aviation and thus allow NATS to offset the impact associated by your proposed airspace change against its regulated targets for fuel and CO2 efficiency i.e. in making its decision the CAA would be required to acknowledge the impact and subtract such figures from its regulatory targets given to NATS, as the impact is not as a result of NATS actions but rather that of the CAA itself.

However, you have also highlighted that the "SHS ACP is novel, perhaps unique, in its requirement to establish SUA for <u>commercial use"</u>. As such the option of a MOD related ACP (M1, M2) may not be open to you. Resultantly, the CAA may require more detail associated to the environmental impact of your proposed operation than that offered by your proposed amendment to your design principles. With that said, it is not for NATS to second guess the discussions you have had with the CAA or the type of environmental information that the CAA or UK Space Agency may require from you for to progress your application as a Launch Operator under the SIA Article 11 or to progress your ACP.

Hopefully this is been of some help.

Regards

Airspace Development
Prestwick Development Team

D:
M:
E:

NATS (Prestwick)
Freeson Avenue
Prestwick KA9 2GX

www.nats.co.uk

Response Received 6th January 2020

RSPB Scotland



Thank you for consulting RSPB Scotland. We have no further comments to make in addition to our previous response.

Kind regards,

Conservation Officer – North Highland

North Scotland Regional Office Etive House, Beechwood Park, Inverness, IV2 3BW



rspb.org.uk

Let's give nature a home in Scotland



RSPB Scotland is part of the RSPB, the UK's largest nature conservation charity, inspiring everyone to give nature a home. Together with our partners, we protect threatened birds and wildlife so our towns, coast and countryside will teem with life once again. We play a leading role in BirdLife International, a worldwide partnership of nature conservation organisations.

The Royal Society for the Protection of Birds (RSPB) is a registered charity: England and Wales no. 207076, Scotland no. SC037654

Responses Received on 7th January 2020

HIAL

From:

Sent: 07 January 2020 09:26

Subject: RE: Space Hub Sutherland ACP Revised Environmental Design Principle

Complements of the season to you both.

This is not a problem and I think the only comments were those that transfer to the new document?

All the Best



ATM Project Manager
ATMS Programme
Highlands and Islands Airports Limited
Great Glen House, Leachkin Rd , Inverness IV3 8NW



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NATS

From:

Sent: 07 January 2020 11:40

Subject: RE: Space Hub Sutherland ACP Revised Environmental Design Principle

Updated Response to Sutherland Spaceport ACP – Revised Environmental Design Principle

Dear

Having read through your environmental design principle revision (attached) I have provided a revised NATS response below. In considering the response I have focused on the following:

Pertinent Text

'In addition to addressing the CO2 emissions and fuel burn associated with the re-routing of other airspace users, the revised Design Principle captures the requirement to assess the environmental impact of activities both within the proposed airspace and in launch vehicle stage drop zones. The sponsor will work with the CAA to develop suitable metrics which meet the requirements in CAP 1616, using existing information wherever possible.'

Proposed text of Revised Design Principle

'Using metrics to be agreed with the CAA, an assessment of the environmental impact of both the proposed airspace and the airspace affected by it will be undertaken.'

NATS Response

The additional environmental requirements related to the Sutherland Spaceport ACP, beyond those associated to the re-routing of aircraft as a result of the proposal, are not factors directly associated with the NATS Operation.

As a result and providing that, the proposal will continue to seek (where possible) to minimise additional CO2 emissions and fuel burn due to re-routing and additional flight plan mileage. NATS is content with the revision to the Sutherland Spaceport Design Principles, given they would continue to seek to identify the impact to commercial aviation and thus allow NATS to offset the impact associated by the proposed airspace change against its regulated targets for fuel and CO2 efficiency i.e. in making its decision the CAA would be required to acknowledge the impact and subtract such figures from its regulatory targets given to NATS, as the impact is not as a result of NATS actions but rather that of the CAA itself.

Priority C, would appear appropriate from a NATS perspective.

Regards

VATS

Airspace Development
Prestwick Development Team

D: [M: [

F: **-**

NATS (Prestwick) Freeson Avenue

Prestwick KA9 2GX

www.nats.co.uk

Oil and Gas Authority



Thank you for your recent emails to the Oil and Gas Authority.

We would highlight that we don't have any specific comments on the principles, but our suggestion, if you have not already done so, is that you should contact the HSE as a stakeholder, who are responsible for the safety of offshore installations.

Kind regards



Oil and Gas Authority E: OGA.Correspondence@ogauthority.co.uk Follow us on Twitter.com/ OGAuthority

Oil and Gas Authority is a limited company registered in England and Wales with registered number 09666504 and VAT registered number 249433979. Our registered office is at 21 Bloomsbury Street, London, United Kingdom, WC1B 3HF.
For information about how we process data and monitor communications please see our Privacy Statement and for terms of use please see our Terms and Conditions, both available on our website.

RSPB Scotland



I can confirm we have no comments to make.

Best wishes,



United Kingdom Flight Safety Committee (UKFSC)

I do not recognise the proposed text as being a Design Principle *per se* but rather a statement that is largely meaningless because it doesn't give any indication of the relevance of the assessment to any ACP under development.

If you were to recast it along the lines of (eg): "Using metrics to be agreed with the CAA, the ACP will be framed to minimise the environmental impact of operations on all affected airspace." then that to me would read as a principle under which your ACP will be designed.

Given the current national focus on environmental issues you might consider that it should be afforded a reasonably high priority (A/B).

Kind regards

Chief Executive UK Flight Safety Committee

Response Received 9th January 2020 British Airways

Please find our response attached.

Best Regards

Flight Operations
Waterside (HFB1)
PO Box 365 Harmondsworth
Middlesex UB7 0GB

Tel. +44



Your Response

Do you agree that the statement constitutes a Design Principle and, if you do not, please provide additional comments in the box below

Yes, but without details of the airspace change proposal, it is difficult to model what the potential re-routes would be.

Please rank this Design Principle according to your, or your organisation's priorities, with 'A' being the highest priority and 'D' being the lowest

Potentially A.

Please add any amplifying comments in the box below

We would potentially take issue with the following SHS prioritised design principles:

DP3 Access C SHS will only be for vertical launches to put small satellites into orbit.

This is not what was stated in the SSC design principles questionnaire — 'The spaceport will launch small rockets into space from Lamba Ness on Unst in a Northerly direction over the sea'. We still maintain a launch site near the equator would be better suited to this type of operation.

DP8 Access C The ACP may seek to legally prohibit overflight of some areas associated with the SHS operation through the application of byelaws or Statutory Instruments (SIs).

We totally disagree with this; any launch operation must be with the agreement of airspace users. Rocket launches should have no right to undermine civil airspace user's operations. Also, the launch vehicle stage drop zones may fall outside the boundaries of UK jurisdiction, so agreement should be sought before any launch operation.

Response Received 13th January 2020

Wildland Scotland

Dear Sirs/Madams

Please find attached a copy of a consultation response from Wildland Limited to the consultation exercise conducted by HIE – regarding the Space Hub Sutherland ACP Revised Environmental Design Principles. We appreciate the replacement of the earlier circulated documentation. We note that the CAA has now issued additional advice encapsulated in draft additional guidance entitled *Airspace Design: Environmental requirements technical annex CAP 1616a.* This would seem to underline some of the suggested 'refocussing' suggestions we make about the local impacts which have to be taken into account alongside the impacts upon airspace. We would be perfectly content to have further discussions regarding the content of our thinking. We would appreciate confirmation of receipt of this correspondence.

Yours sincerely

Development Director Wildland Limited

Phone: +

WildLand Limited www.wildland.scot



www.killiehuntly.scot | www.glenfeshie.scot | www.kinloch.scot | www.kyle.scot | www.strathmore.scot | www.foulain.scot

Registered in Scotland: SC419245.
Registered name and address: WildLand Limited, 1st Floor, 2 Granish Way, Dalfaber Drive, Aviemore PH22 1UQ

WildLand Limited

www.wildland.scot

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Registered name and address: WildLand Limited, 1st Floor, 2 Granish Way, Dalfaber Drive, Aviemore PH22 1UQ

Response to HIE Design Principle Consultation - from Wildland Ltd

- 1. Wildland Limited is the neighbouring landowner to the proposed Rocket Facility on the A'Mhoine Peninsula. Wildland manages their northern estates to enhance the environmental and natural capital of the area in order to conserve and enhance the natural heritage and tourism potential of this area. We are investing substantial sums to build visitor facilities, hotels, guest lodges and cottages to encourage folk to visit the area. Wildland is also supporting significant community development initiatives in the village of Tongue itself.
- 2. On the basis that the Design Principles must pay heed to the Environmental Assessment process, considerable attention should be paid to the 'do nothing scenario' as advised in CAP1616. This is the current-day scenario that becomes a baseline for any assessments of impacts. The reality is that the baseline covers land which is heavily designated for:
 - a) nature conservation value (Natura 2000, SPAs, SACs, Ramsar sites, SSSIs);
 - b) scenic beauty (National Scenic Areas note that CAP1616 refers to AONBs without realising that these are called National Scenic Areas in Scotland; to quote SNH: "NSAs are broadly equivalent to the Areas of Outstanding Natural Beauty found in England, Wales and Northern Ireland -https://www.nature.scot/professional-advice/safeguarding-protected-areasand-species/protected-areas/national-designations/national-scenic-areas)
 - c) wildness (Wildland Areas); and
 - d) environmental significance at the global scale (candidate World Heritage Site).
- 3. The defined baseline covers an area in which the normal assessment, as set out in CAP1616, has to be somewhat inverted. The very purpose of these designations is to direct development to other areas which aren't designated in order to protect (broadly speaking) the tranquillity and biodiversity of the area. Any argument from Space Hub Sutherland that the launch site itself is not subject to these designations would be seen as specious, given, not only the location and surroundings, but the fact that HIE is also responsible for tourism development in the area and the promotion of the World Heritage Site.
- 4. It is specifically noted in CAP1616 that 'where practicable, it is desirable that airspace routes below 7,000 ft should seek to avoid flying over Areas of Outstanding Natural Beauty' (i.e. National Scenic Areas in Scotland). [B29, Appendix B, CAP1616]
- 5. It is also specifically noted that, as described, the SHS proposals are proposing a Level 1 airspace change proposal. This means that noise assessments are not only mandatory but also have to be contextualised against a tranquil and biodiverse backdrop. [B38, Appendix B, CAP1616]
- 6. However, Paras B46 B59 clearly focus on the impact of aircraft noise on communities adjacent to flight paths, particularly resulting from landing/take-off near airports. An example of this is the focus upon 'daytime and 2300hrs to 0700hrs' in terms of the noise metrics. It is difficult to see how the requirements of CAP1616 apply, or can be literally interpreted, in circumstances such as the A'Mhoine peninsula in Sutherland. CAP1616 is about airports and about air traffic associated with areas of dense population which form the principle market for air traffic.
- 7. Thus, to specifically apply CAP1616 onto a space flight launch facility presents certain difficulties from the start.
- 8. In terms of the Prioritised Design Principles suggested by SHS it is understood that the process is necessary in order to obtain CAA approval for the proposal.
- 9. However, all the suggested principles from the SHS concern the impact of a space rocket launch upon the pre-existing air traffic routes. For instance, the only Priority A Design Principle is 'other airspace users' which will predominantly be north Atlantic long-haul flights or military aircraft using the bombing range at An Garbh-eilean. To see this as the only Priority A consideration seems to be unnecessarily

limiting and indicates a lack of concern for some of the other key receptors in the area, be they White Tailed Eagles or the inhabitants of several small villages in the area.

- 10. Notwithstanding, we see significant increases in CO2 emissions as civil air traffic is diverted to avoid the spaceport. We understand that the substantial Western Isles MOD airspace is already subject to an agreement that this airspace and the bombing range airspace cannot be activated at the same time since this causes massive disturbance to trans-Atlantic traffic. Thus a key design principles would surely have to be a severe time limit on how often the airspace was active for rocket launches. It simply cannot be active when either the bombing range or Western Isles are active.
- 11. Paras B76 to B78 specifically oblige 'change sponsors' to consider the impact upon tranquillity in AONBs (read NSAs). Quote 'Change sponsors are required to have regard to these statutory purposes when developing airspace change proposals'. It is duly noted that in terms of the Planning (Scotland) Act 2019 the provisions and duties relating to NSAs have been strengthened.
- 12. Finally, it is noted that paras B79 B80 of CAP1616 cover the impact of proposals upon Biodiversity. There is intriguing reference to the need for the CAA to be 'familiar' with the Wildlife and Countryside Act 1981 and the Conservation of Habitats and Species Regulations 2010. At the core of the Natura 2000 legislation is a direct requirement on both government and private sector to observe very specific, court tried and tested, legal duties.; namely that proposals will be unacceptable unless it is shown that:
 - a) there aren't any less damaging alternatives;
 - b) the benefits of the plan or project override the need to protect the European importance of the site/species for nature conservation (i.e. that there are "imperative reasons of over- riding public interest" to proceed with the plan or project); and
 - c) suitable compensatory habitat has been secured to protect the Natura 2000 network.
- 13. These criteria are referenced for clarity. Wildland Limited, in bringing forward its own tourism proposals has had to have full regard to these provisions and duties. That regard goes well beyond 'familiarity'.

Ends. 13.1.2020

WildLand Limited

www.wildland.scot

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Registered name and address: WildLand Limited, 1st Floor, 2 Granish Way, Dalfaber Drive, Aviemore PH22 1UQ

British Gliding Association (BGA)

Dear Space Hub Sutherland

Please find attached a consultation response from British Gliding Association

Kind Regards

Space Hub Sutherland Design Principles

Consultation response

Sent by	on behalf of British Gliding Association (BGA) Airspace Committee
Contact details:	

BGA Airspace Committee was not aware of the initial consultation on design principles initiated by your email of 1/11/19. It is not clear whether the BGA was contacted but this was lost in the many other CAP1616 processes, or whether no contact was made. The BGA Airspace Committee became aware of the process following the email of 9/12/19. Some confusion has now arisen because your email 07/01/20 indicates that the wrong document was circulated in the previous email.

In any case, the BGA now takes this opportunity to comment on the design principles in their entirety, not just on the environmental aspects.

In recent years there have been a number of glider flights from departure points in central and eastern Scotland, up to a turning point at Tongue and back. The task is achieved if the flight rounds the turning point specified before take off, and fails if that turning point is not rounded. These flights are still fairly rare (but increasing) and represent the pinnacle of the sport of gliding in Scotland. Gliding is an aspiration sport and as such is damaged if the pinnacle becomes unavailable due to restrictions. Therefore we are concerned about any impact SHS might have on free flight in the area.

It is however acknowledged that with the relative rarity of such glider flights, and the relative infrequency of SHS launches, conflict of airspace use is unlikely to occur. Therefore the BGA does not oppose SHS's proposed activities in principle.

In order to minimise the risk of airspace use confliction the BGA asks that SHS's segregation of airspace is kept to a minimum both in terms of time, and in terms of area. The area of concern to the BGA is that over land and generally the eastern part of this very northern part of Scotland. The BGA is less concerned about airspace restrictions out to sea.

The BGA is somewhat concerned that absolutely no indication has been given of the likely size of any restricted airspace, but the comments in this document assume that it will not be more than perhaps 10-20nm in the north/south direction. We accept that it may need to be larger in the easterly direction.

Soaring aircraft must follow the lines of rising air (lift) in order to stay airborne, which for flight in this part of the country typically arise from mountain wave. A soaring aircraft cannot easily "reroute" without risking falling victim to descending air, and therefore the task may well be failed if re-routing is required even if the turn point is not within the restriction. Ultimately a land-out in hostile terrain could result.

Soaring and space vehicle launches are both significantly affected by the weather, which is of course unpredictable. It is therefore suggested that the notification of any segregation of airspace is done in 2 stages – an early warning (eg the day before, or earlier) of probable SHS activity, followed up by a firm notification once it seems likely the launch will actually happen within the next few hours. There should be easy means for a soaring glider to discover whether

or not the airspace segregation is actually taking place / going to take place shortly, eg by means of an aeronautical radio facility. This will minimise the risk of a "false alarm" activation of airspace segregation from impacting unnecessarily on soaring flight. If a proposed launch / airspace restriction is cancelled, this should be promulgated as a matter of urgency.

The BGA takes some issue with the design principles' allocation of priority. It is something of a platitude to have only safety of other airspace users (DP1) as the top priority. Taken at face value such a top priority design principle is readily achieved simply by banning all other airspace users for hundreds of miles for very long durations, which of course would be unacceptable to the BGA and other airspace users.

The BGA considers that DP1 must be balanced against access for other airspace users in a sensible, pragmatic and evidence-based way, whilst accepting that risk to other airspace users must be kept as low as reasonably practicable. Therefore access should have the same priority as safety.

The BGA also notes that in the original consultation document A2 "Questions for Aviation Stakeholders" that despite DP1 being the top priority, there are numerous references to "protect the space hub launches", "protect vertical space launches" etc, and that perhaps betrays SHS's true top priority.

SHS needs to take a balanced position that protecting its own assets, protecting access for soaring aircraft (and other GA) and protecting the safety of other airspace users, all carry the same priority.

In summary, the BGA wishes SHS well in its venture, provided that it takes a sensible and balance strategy to meet the access and safety requirements of all stakeholders. This should include minimising airspace restrictions and a careful consideration of how best to communicate the proposed activation of restrictions, giving both early warning of proposed activation, and definite activation shortly before launch.

Kind Regards

Member Airspace Committee, British Gliding Association

Lanarkshire Lothian Soaring Club and Scottish Scottish Highland Paragliding Federation

additional comments in the box below	
We do not agree	
Please rank this Design Principle according to your, or your organisation's priorities, with 'A'	2
being the highest priority and 'D' being the lowest	
C -Whilst environmental consideration is important our organisation wishes to ensure availability of airspace and safety for recreational use as a higher priority.	c
Please add any amplifying comments in the box below Our main consideration is the availability of recreational airspace for paragliding in the	
highlands. Although we believe the nature of vertical launches and vehicle recovery will have little impact, we believe the design principle should give some consideration to this. Principally the amount of time airspace is utilised and how this is communicated prior to the launch (NOTAM or otherwise).	
Dear Sutherland Spacehub,	
Please find above comments in response to the design principle document we received recently. The of LLSC (Lanarkshire Lothian Soaring Club), with SHPF (Scottish highland paragliding federation) in co	
Please use this email address as primary contact unless any objections from the SHPF.	
Best regards	

Do you agree that the statement constitutes a Design Principle and, if you do not, please provide

Scottish Natural Heritage

Dear

Thank you for the consultation. Our response is attached. Please let me know if you have any questions.

With best wishes

| Area Officer

Scottish Natural Heritage | The Links | Golspie Business Park | Golspie | Sutherland | KW10 6UB | t direct:

I t reception: 01463 701608

Dualchas Nàdair na h-Alba | A' Mhachair | Pàirc Gnothachais Ghoillspidh | Goillspidh | Cataibh | KW10 6UB nature.scot - Connecting People and Nature in Scotland - @nature scot

Your Response

Do you agree that the statement constitutes a Design Principle and, if you do not, please provide additional comments in the box below

I agree this constitutes a design principle but I also consider it would be clearer if it read as follows:

Using metrics to be agreed with the CAA, an assessment of the environmental impact of both the proposed change of use of the airspace, and the additional airspace affected by those changes, will be undertaken.

Please rank this Design Principle according to your, or your organisation's priorities, with 'A' being the highest priority and 'D' being the lowest

В.

Please add any amplifying comments in the box below

In relation to the rating above, we consider the launching element of the activity to be of significance, however, we consider land based activities to be our highest priority.

Vulcan Naval Reactor Test Establishment

Please find attached a response on the proposed revised environmental design principle. I aimed to meet the 1200 14 Jan deadline on the covering email, but note the attachment states 1200 13 Jan. Please note I have taken over from so I am now the relevant replacement stakeholder.
Regards
Cdr RN Naval Superintendent Vulcan Naval Reactor Test Establishment Dounreay Caithness KW14 7TY BT: Ext Mil: Mobile: Mobile: Mobile: Caithness KW14 7TY BT: Ext Mil: Mobile: Caithness KW14 7TY BT: Ext Mil: Caithness KW14 7TY BT: Caithness Caithne
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Your Response
Do you agree that the statement constitutes a Design Principle and, if you do not, please provide additional comments in the box below
It doesn't come across as a Design Principle. I would expect an environmental impact assessment to be a means to inform meeting an environmental design principle. So your design principle could be to minimise so far as practicable the environmental impact of the Space Hub's operations.
Please rank this Design Principle according to your, or your organisation's priorities, with 'A' being the highest priority and 'D' being the lowest
On the basis that launch vehicle stage drop zones would be encompassed, this would be an A. Otherwise it would be a D
Please add any amplifying comments in the box below