MINUTES OF SPACEPORT 1 SCOLPAIG NORTH UIST ACP ASSESSMENT MEETING HELD ONLINE ON 29 MARCH 2021

29 March 2021

Distribution List: All attendees

Representing
CAA
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QinetiQ Ltd
QinetiQ Ltd

CAA Assessment Meeting Opening Statement

CAA noted that the Statement of Need, Assessment Meeting Agenda and the Assessment Meeting Presentation were received in advance of the Assessment Meeting and confirmed that the documents must be published by the sponsor, together with minutes of the meeting, on the Airspace Change Portal page. CAA explained the purpose of the meeting and confirmed that the meeting was an Assessment Meeting and not a Gateway. The CAA reinforced that the sponsor was required to provide a broad description of their proposed approach to meeting the CAA's CAP 1616 requirements, but the CAA was not deciding whether the proposed approach met the detailed requirements of the CAA's process at this stage. The purpose of the Assessment Meeting (set out in detail in CAP 1616) was broadly:

- for the sponsor to present and discuss their Statement of Need,
- to enable the CAA to consider whether the proposal concerned falls within the scope of the formal airspace change process, including determining whether the proposal falls within the scope of a scaled CAP 1616 ACP for the introduction of RNP Instrument Approach Procedures (IAPs) without an Approach Control as described in CAP 1961,
- to enable the CAA to consider the appropriate provisional Level to assign to the change proposal.

Additionally, the sponsor was required to provide information on how it intended to proceed to fulfil the requirements of the airspace change process and to provide information on timescales. Lastly, the sponsor was required to provide information on how it intended to meet the engagement requirements of the various stages of the airspace change process.

	ACTION
Item 1 – Introduction All attendees were introduced. The mandatory statement was read. The sponsor described the relationship between QinetiQ and the Spaceport 1 (SP1) consortium in addition to providing an overview of QinetiQ's role in managing the MOD sponsored Hebrides Range Danger Areas. A brief description of how QinetiQ would work with the MOD to enable access to the Danger Areas for commercial spaceport use was provided.	QinetiQ
Item 2 – Statement of Need (discussion and review)	All
The Sponsor explained:	

- SP1 is consortium led by local council and comprising of Highlands & Islands Enterprises, private investors and QinetiQ Ltd.
- Consortium are in the process of developing a vertical launch spaceport site at Scolpaig, North Uist on the Western Isles.
- The site is being exploited as an opportunity in support of the UK government's spaceflight programme, 'LaunchUK', which aspires to grow the UK's global market share of the space sector to 10% by 2030 and be at the forefront of small satellite launch
- The location has been carefully selected in order to minimise disruption to the public and airspace users, the latter through the exploitation of the existing Ministry of Defence (MOD) QinetiQ managed Danger Areas known as the Hebrides Range; the EG D701 complex.
- Site current sits beneath Class G unregulated airspace but is only a few miles from the EG D701 complex.
- Rocket launch poses a threat to other aviation stakeholders therefore there is a need to 'segregate' activity – This is probably best achieved through a small Danger Area connecting the launch site with the adjacent Danger Areas and activated by NOTAM.
- Use of the site will be two phases namely; phase one suborbital 'sounding rockets' and phase two; orbital sun-synchronous and Polar orbits.
- Site location will enable efficient use of irreducible spare capacity of the Hebrides Range Danger Areas and provide an existing safe environment to operate utilising existing Range facilities, elements of which will be enhanced to meet future space industry act regulation.
- Existing airspace management procedures for the Range will be extended to accommodate SP1 activities.
- QinetiQ will manage both MOD use and SP1 use of the Range thereby enabling the most efficient use of airspace in the spirit of Flexible Use of Airspace (FUA) concepts, especially when it is safe to conduct coincident operations.

CAA raised the following questions:

- An explanation of 'irreducible spare capacity' was requested The Sponsor responded by explaining how under certain circumstances part of the Danger Areas may be NOTAMed as active but where trials are delayed there may be the opportunity to conduct sounding rocket firings. Furthermore, the inner D701 Danger Areas can normally be activated without any restrictions as they do not affect the Oceanic Entry Point (OEPs) and it is considered that when these areas are not being used by MOD they could be used for SP1 operations.
- A request for a copy of the main Letter of Agreement between the Range, MOD, NATS, CAA, IAA and QinetiQ regarding the activation of D701 was requested.
 PMN: LoA forwarded to CAA accordingly

Item 3 - Issues or opportunities arising from proposed change

The main issues identified by the Sponsor were detailed:

- SP1 site sits beneath Class G airspace and as such, any hazardous activity (rocket launch) is not segregated from other airspace users. The airspace change will provide the opportunity to have segregated airspace that will enable SP1 to provide a safe site for small satellite rocket launch.
- It is recognised that the small fillet of airspace being developed as part of the ACP is only part of the story and any increase in D701 activity potentially has an impact on Commercial Air Transport (CAT) flying oceanic routes in and out of the UK. This impact is well understood by the sponsor due to the Sponsor's role in the Hebrides Range ACP in 2014/5 and coordinating the airspace for the international missile defence exercises that occur at the Hebrides Range every two years.
- Out with CAT, other agencies that could potentially be affected by the ACP include; the Northern Lighthouse Board, Fisheries, survey and SAR flights.
- Additional workload on ATCOs/FISOs at Benbecula airport is also considered.

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The principal opportunity is enablement use of suborbital and orbital vertical launch opportunities from Scolpaig.

Item 4 - Options to exploit opportunities or address issues identified

QinetiQ

The options to exploit opportunities and addressing the issues highlighted were detailed by the Sponsor as:

- Real opportunity to exploit the UK governments LaunchUK programme and assist
 in growing the UK's global market share of the space sector. It will pave the way
 for rocket developers to conduct testing in an existing safe and fully instrumented
 environment that is the Hebrides Range. With QinetiQ's experience in rocket
 launch from the At Sea Demonstration (ASD) and Formidable Shield (FS)
 Exercises the SP1 site will become a most attractive place from which to conduct
 small rocket launches.
- The market for scientific use of suborbital rockets is also a growth market; indeed, availability of affordable launch from Scolpaig is likely to be a market accelerator for, and within, the UK.
- The market demand is strong for both test and scientific suborbital launch, with X companies currently in discussion for use of the Scolpaig facility, one of which wished to become an 'anchor tenant' for their European operations.
- There is known demand from low cost small satellite producers and rocket providers for such launch sites and the need to move expeditiously on this development is vital if the UK is to be a front runner in this domain.
- The site will provide much needed revenue and job opportunities for the local community and supporting sectors like Highlands and Islands Airports Ltd (HIAL) with an increase in use of Benbecula airport, and Loganair (the local air carrier) who should experience an increase in passenger numbers.

Addressing the Issues:

- Impact on CAT can be reduced by managing launch activity outside peak traffic flows. Furthermore, the existing Danger Areas are fully integrated into the existing air traffic management systems enabling harmonised and dynamic planning.
- Current LoAs can be expanded with HIAL in order to minimise any increase in ATCO/FISO workload.
- Extant Range procedures and processes enable access to the Danger Areas for Northern Lighthouse Board, Fisheries, Survey and SAR aircraft. These can be easily expanded to capture SP1 activities.
- Airspace will only be activated when needed and SP1 use is expected to be infrequent, probably no more than four or five times per month.

The CAA raised the following questions:

Given the potential challenges of meeting exact orbit requirements for some customers, how would this be managed to avoid peak CAT periods – The Sponsor responded by suggesting many of the launches would not need to meet specific timings to achieve their orbits however, where this was the case then it is thought the UK Airspace Management Cell (AMC) would become involved for the strategic planning of such events. Rocket launch would probably be treated in the same manner as civil and military request for airspace today.

Item 5 - Provisional indication of the scale level and process requirements*

Discussion:

The CAA stated that this ACP would be considered a 'Level 1' airspace change but reiterated that this is only provisional at this stage. The CAA's confirmation of the Level will follow once the change sponsor has completed its option development and initial options appraisal (Steps 2A and 2B respectively).

The ACP process was further explained, highlighting the requirement to develop options based on appropriate stakeholder engagement. Stage 2 should contain a comprehensive list of options with a qualitative analysis of each option as a minimum. During Stage 3 and 4 this would likely develop into a quantitative analysis of options that should include a cost

benefit analysis. The Sponsor was directed towards the guidance contained within CAP 1616 in particular Appendix B, C and E.

The CAA further amplified the need to engage relevant stakeholders during the next phase of the process (Step 1B), highlighting that the categories detailed in CAP 1616, Paragraph 121 should be used as a framework to help change sponsors identify relevant stakeholders. A distribution list for NATMAC members would be forwarded to the Sponsor after the meeting.

The need to maintain evidence, capturing all engagement, timings, discussions, feedback and outcomes was critical to the process. Furthermore, it was important to ensure the design options are aligned with the design principles and a clear audit trail for the engagement activities is maintained throughout the process. Moreover, targeting the right audience with an appropriate consultation strategy approach for Stage 3 was vital and 'Citizen's Space' was referred to as the mandatory online platform for airspace change process related consultations.

The importance of keeping the CAA informed throughout the process was reinforced especially where there were any potential changes to the proposed timelines.

There was a brief discussion regarding safety analysis beyond the Range where the risk to third parties would have to be fully assessed to ensure any risks were mitigated to ALARP. The Sponsor explained that QinetiQ were fully conversant HSE requirements and risk analysis for hazardous activities and would be working closely with the launch operator and in time, with other international authorities who may be affected by rocket launch such as Reykjavik.

* When the sponsor submits their gateway materials for each Gateway at the agreed submission deadline, the period between this and the gateway decision will be an analysis by the CAA Airspace Regulatory team (Airspace Regulation) of the documentation submitted, for the purposes of making a recommendation to the CAA Gateway decision maker(s). In conducting the gateway assessment, the CAA is assessing the process employed and its compliance with the guidance stipulated within CAP1616. It is not an assessment of the merits of the submission itself, which is reviewed at Stage 5 - Decision. We may request documentation from the sponsor that is referred to in the gateway submission but has not been provided as part of the Gateway submission materials. We may also request the sponsor to provide information by way of clarification relating to statements or assumptions made in the submission. Any further information sought by Airspace Regulation at this stage is for clarificatory purposes and is only for determining compliance with the CAP 1616 process.

In any instance where a sponsor has not met the requirements of the process, we will inform them after the gateway decision and advise of next steps.

Item 6 - Provisional process timescales*

Provisional timelines were discussed and the Sponsor suggested that due to the nature of the airspace change there would be a limited number of affected stakeholders and the list would probably be similar to that for the Hebrides ACP conducted in 2014/5. As such, it might be possible to scale the timelines for certain stages. The CAA confirmed that in any instance where a change sponsor believes they can meet fundamental consultation principles in less than the recognised standard of 12-weeks, they have the opportunity to propose a scaled-down consultation through their Consultation Strategy, which would be considered by the CAA at the CONSULT Gateway (Stage 3).

Based on the full process of an ACP taking approximately 110 weeks, it is thought this could be reduced by several weeks and as such the following timelines are proposed:

Proposed timeline

Define Gateway: 25 June 2021

Develop & Assess Gateway: 24 September 2021

Consult Gateway: 17 December 2021
 Formal ACP Submission: 21 July 2022
 Decide Gateway: 23 December 2022

• Target AIRAC: 04/2023 | AIRAC Effective Date: Thursday 20 April 2023

The proposed timeline was subsequently agreed by the CAA post Assessment Meeting.

The Sponsor will be required to submit their Gateway documentation two weeks prior to the Gateway date in order for the CAA to analyse them. Where the Change Sponsor seeks to amend its timeline through the development of its change proposal, this will be subject to further agreement with the CAA and may result in a change to the timeline for submission of materials ahead of a Gateway

It is noted that there is a current demand to commence the launch of sub-orbital sounding rockets ahead of small satellite orbital launch. Three customers have already strongly indicated that they are ready now to start testing from a UK site and discussions with SP1 are at a mature stage with an aspiration to launch sounding rockets by September 2021.

It is recognised that before any orbital launches can be conducted both the site and the Range will need to acquire the necessary licences to operate in accordance with the emerging Space Industry Act (SIA) and subordinate regulations (expected July 2021). It is the gaining of these licences and approvals that will ultimately drive the timelines and until the legislation is endorsed by parliament and fully understood, it is difficult to estimate when the launch site will be in a position to offer its services for orbital rocket launch.

It is expected that sub-orbital operations such as sounding rockets, may not need to operate under the SIA in the first instance (where rocket capability <50KM, <10,240Ns) and these could be approved on a case by case basis under the Air Navigation Order (ANO).

The ACP process by necessity can be protracted and therefore it is acknowledged the SP1 ACP is only likely, at best, to be at Stage 3 of the process by September this year. In order to commence sub-orbital operations ahead of the ACP approval, it will be necessary to apply for a temporary airspace solution such as a Temporary Danger Area (TDA). The Sponsor recognised that this will need to be a separate application in parallel with the ACP.

* The timeline agreed may become subject to change by the CAA. This is because the Secretary of State for Transport has directed the CAA to prioritise RNP Instrument Approach Procedures (IAPs) without an Approach Control proposals; this may impact Airspace Regulation resource and consequently timelines.

Item 7 - Next steps

A draft copy of the minutes of this meeting should be sent to the Airspace Change Account Manager within a week after the meeting. The minutes of the meeting were to be published and uploaded onto the portal within 2 weeks of this Assessment Meeting (Wednesday 14th April 2021 – taking the Easter break into consideration). A complete version was to be agreed and presented to the CAA, whilst a redacted version was to be placed on the portal.

Item 8 - Any other business

The sponsor thanked all attendees for their time and advice and for drawing together the meeting at short notice.

There was no other business.

ACTIONS ARISING FROM SPACEPORT 1 SCOLPAIG NORTH UIST ASSESSMENT MEETING

Subject	Name	Action	Deadline
Assessment Meeting Minutes	QinetiQ	Deliver draft minutes to CAA within seven days	5 Apr 21
Minutes Reviewed & Approved	CAA	Review and comments on minutes	14 Apr 21
Upload Documents	QinetiQ	Upload approved redacted minutes and assessment meeting presentation to ACP portal	14 Apr 21
NATMAC List	CAA	Send NATMAC list to Sponsor	29 Mar 21
LOA	QinetiQ	Send current LoA for Hebrides Range to CAA	29 Mar 21

QinetiQ Ltd ACP Sponsor