

**MINUTES OF ACP-2021-090 ASSESSMENT MEETING
HELD On-Line ON 31st Jan 2022**

31st January 2022

Distribution: All meeting attendees

Present		CAA (SSC ACP Account Manager)	Chair
		Shetland Space Centre (SSC) (Launch Operations Manager)	
		CAA (Airspace Regulator (Technical))	
		CAA (Airspace Regulator (Environment))	
		SSC (AVISU) (SSC ACP Support)	
		SSC ((Operations Director)	
		SSC (AVISU) (SSC ACP Support)	
		CAA (Airspace Regulator (Engagement & Consultation))	
		SSC (AVISU) (SSC ACP Support)	
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In attendance		CAA (Airspace Specialist (Correspondence))	
		CAA (Airspace Regulator (Technical))	
		CAA (Account Manager)	

Ser	Discussion	Action
1	<p>Item 1 - Introduction.</p> <ol style="list-style-type: none"> 1. The attendees introduced themselves and their individual roles pertaining to the ACP-2021-090 application. 2. The CAA noted that they received the Statement of Needs in advance of the Assessment meeting and confirmed that the documents are required to be published by the Change Sponsor ("the Sponsor"), together with the minutes of the meeting, on the airspace change portal. 3. The purpose of the Assessment Meeting, as set out in CAP 1616, is for the Sponsor to : <ol style="list-style-type: none"> a. Present and discuss their ACP Statement of Need. b. Provide information on how the Sponsor intended to fulfil the requirements of the airspace change process. c. Present its provisional timescales. d. Provide information on how it intended to meet the engagement requirements of the process. 4. The Chair undertook to send a wash-up email which will contain supporting information to help in the completion of the ACP process. 	
2	<p>Item 2 - Statement of Need (Discussion and Review)</p> <ol style="list-style-type: none"> 5. SSC delivered the meeting presentation that was distributed via e-mail before the meeting. 6. SSC discussed the statement of need: <ul style="list-style-type: none"> - SSC has made a request to conduct vertical launch operations for orbital and sub orbital activities from SaxaVord Spaceport in Unst in Shetland. - SSC request a suitable Temporary Airspace Reservation (TAR) of defined dimensions to ensure the safety of airspace users and the public from SSC launch activities. - SSC require the TAR to be activated for specific periods before, during and after launch and extend from the surface to unlimited height. - SSC highlighted the intention to "un-pause" the permanent airspace change proposal ACP-2017-79. 	

Ser	Discussion	Action
3	Item 3 - Issues or Opportunities Arising from Proposed Change	
	<p>7. Issues</p> <ul style="list-style-type: none"> - SSC highlighted that the primary impact would be to air traffic within the vicinity of the launch site. - SSC conducted an airspace analysis in early 2021 to determine the impact of an established TDA on Aircraft movements. The analysis used data from historical spaced based surveillance to determine the hourly and daily peak of air traffic. The analysis provided an indication of the appropriate launch times that could be used that caused minimal disruption to Air Traffic. An example of the analysis can be found on slide 3 of the assessment presentation. - What is the potential impact on aviation due to activation and de-activation notifications of the TDA. - The coordination and activation of emergency access to the TDA 	
	<p>8. Opportunities</p> <p>SSC Highlighted and endorsed the UK Government opportunities:</p> <ul style="list-style-type: none"> - Make the UK a serious player in the space industry. - Add a Sovereign space launch capability for the UK - Enable the UK to win 10% of the world space market by 2030 	
4	Item 4 - Process requirements	
	<p>9. 4B - Stakeholder Engagement. SSC outlined their approach to aviation stakeholder engagement:</p> <ul style="list-style-type: none"> - Identify all aviation stakeholders to be impacted by the activation and operation of a TDA - Map the impact to aviation and airspace users. - Stakeholders were assessed and a value assigned to their respective levels of "power" they might be able to exert over the application and the level of "interest" that they might have in the application: VL-L-ML-M-MH-H-VH and values 1 to 7, respectively. These values combined to give each stakeholder an individual score. - Engagement will include the banding of stakeholders, the styles of engagement to be used the material and media. High priority stakeholders will be engaged more proactively while lower priority stakeholders will be informed of activities and encouraged to provide feedback through the website/portal. All engagements will be timebound and adhere to the 12-week time period. The analysis and feedback from stakeholders will be recorded. Coordination with HyImpulse Technologies (HIT) will take place to improve the overall TDA. Review of the airspace design will take place taking into consideration the feedback from stakeholder engagement. - SSC presented an example of the stakeholder engagement spreadsheet that indicates stakeholder type, aviation, or non-aviation, whether it is orientated towards the Temp or Permanent ACP, the stakeholder organisation, the power and interest value and the total index score of each stakeholder and the nationality. - Overarching principal - engagement with aviation stakeholders will address both positive and negative impacts through providing them with sufficient source material and commentary to gain an objective response. <ul style="list-style-type: none"> o The stakeholder plan will outline the methods and principles to be used. o SSC are developing a stakeholder portal for the distribution of essential information on the TDA activity and the recording feedback from stakeholders. <p>10. Decisions. It was agreed that the Chair would arrange for the following materials to be sent to SSC:</p> <ol style="list-style-type: none"> a. The NATMAC distribution list. b. The template for the engagement strategy. SSC are welcome to submit this, together with the stakeholder list, prior to commencing engagement. By giving the CAA sight of SSC's stakeholder engagement strategy this could help to identify any gaps and potentially save work/time in the future. c. CAA will send the link for the Iceland/Norway MOUs. <p>11. CAA Engagement Requirements. CAA explained the requirements for engagement:</p> <ul style="list-style-type: none"> - Engagement with relevant local stakeholders, Airspace users, Air Navigation Service providers, Emergency services, ground operators, relevant national representative organisations NATMAC (National Air Traffic Management Advisory Committee members). - Apply methodology to identify relevant stakeholders. Consider those that are directly, indirectly or potentially impacted. The CAA also mentioned the consideration and inclusion of local impacted aviation stakeholders: Local GA clubs, airfields/airstrips etc. 	Chair

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	<ul style="list-style-type: none"> - Scope of engagement - provide enough information to the stakeholders outlining the safety and operational viability of the proposal. The information must contain relevant data for stakeholders to determine the impact to them and for them to respond accordingly. - Provide information on the length of time of the engagement period. - Engagement evidence must be recorded and maintained. - Be mindful that some stakeholders may mention the fact that you may be in breach of CAP1616 and that it is the responsibility of the CAA to determine if a breach of regulations has taken place. 	
	<ul style="list-style-type: none"> - It is recommended to establish a table of feedback from stakeholders and the response taken. - Establish a complaint monitoring plan that will include reporting to CAA. It is recommended that SSC representatives view the pertinent information contained in Parts 1a and 1b the Monitoring of complaints on pages 95 and 96. - The CAA clarified that referring to the TDA affecting the traffic distribution below 7000ft, affected communities should be informed before the TDA is implemented. <p>12. <i>4C - Safety Assessment.</i> The SSC Safety Assessment will take into consideration and follow the Space Industry Regulations.</p> <p>13. SSC will take some guidance from US code of Federal Regulations in particular Title 14 part 417.107 referring to Flight Safety where target level of safety is provided for risks to aircraft. A safety argument will be established using GSN notation with safety criteria established as part of the proof. This will be both graphical and an argument-based structure.</p> <p>14. <i>Appendix B (B81 to B85) - Environmental Metrics and Assessment Requirements</i> identifies the environmental requirements for temporary changes, including a TDA. Due to the short-term nature of temporary changes only noise is required to be assessed. The assessment must consider both the direct impact of the launch activities and the indirect consequential impact on other traffic, for example due to rerouting, The CAA request that the scope of this assessment is agreed with them at an early stage.</p> <p>15. The CAA also requires the noise impacts to be conveyed to those likely to be impacted before agreeing to the temporary change in accordance with the requirements identified in the bullet points in CAP1616 B83 (page 174).</p> <p>16. No other environmental studies need to take place.</p> <p>17. CAA Technical Input. The CAA explained that there is an inter-Governmental agreement with Iceland and Norway where there is an established MoU. Coordination should take place with the international stakeholders on the expected rocket drop points within territorial waters. US Federal Regulations.</p> <p>18. SSC explained that a discussion has already taken place with the Space Team regarding FAA methodologies and it has been agreed in principle.</p>	
5	Item 5 - Provisional Timescales	
	<p>19. SSC presented a provisional timescale, broken-down into a series of functional areas that refer to the ACP tasks and an associated time perspective using the 12- week engagement period and the target date for SSC launch activities.</p> <ul style="list-style-type: none"> - Task 1 - Review - Brief on status, Initial CAA Engagement process, Stakeholder identification, establish CAA requirements, ACP RIO assessment, ACP status and planning. - Task 2 - ACP Design - Trajectory Information assessment, ACP initial design (Informal draft), Formal design, Update of design after consultation, - Task 5 - ACP Safety Assessment - Review requirements on safety, Develop Safety Argument, Define safety Targets, Allocate safety requirements, Submit assessment to CAA, Final safety assessment. - Task 6 - Engagement - Prepare plan and map all stakeholders, Develop engagement material, Engagement, Post engagement review, Review inputs and feedback. - Tasks 3, 4, 7, 8 - ACP submission updates - Establish application gate requirements, statement of need review, Provide update on current application, Stakeholder Impact report, Final ACP submission, Support CAA review questions, ACP approval. - Task 9a - AIP Implementation - To be completed - Task 9b - Lessons learned - To be completed <p>20. Launch Dates. CAA explained that the timeline should include the AIC notification process. With a launch date expected in September 2022; the 6-week AIC process would require to be started in July. Approval from the CAA is needed before AIC submission and the Stage 5 (CAA decision) will take 56 total days.</p>	

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	<p>21. It should be noted that the CAA decision and the AIC submission run consecutively and not in parallel. In the present timeline the AIC submission would be the 9th Sept with a publication date 20th October and the first launch on a date thereafter.</p> <p>22. Decision. SSC undertook to send to CAA a draft timeline with proposed launch dates and including AIC schedule update(s).</p> <p>23. Paused ACP-2017-79. The CAA explained that for this ACP to be un-paused then a new timeline would need to be submitted by SSC. A timeline proforma template was sent to SSC on 11 January 2022.</p> <p>24. The CAA further explained that a TDA can only be notified for a 90-day period. Within that 90-day period, the TDA can be activated on multiple occasions, as agreed and defined through the application process. A lot would depend on how many notifications of the TDA would be required to achieve SSC launch ambitions prior to successful completion of the permanent ACP; there may be a limit to the number of times the TDA could be notified.</p>	SSC												
	<p>25. SSC requested if there was a limit to the number of launches under the terms of the TDA. The CAA would investigate what was discussed in previous meetings. The CAA also explained that if the permanent ACP were to be used for different sizes of rocket, then it would probably require that the design would encompass a range of airspace dimensions that would be segmented in some way that would allow a particular airspace to be activated depending on the rocket size. SSC sought advice on the possible submission dynamics of the airspace volumes for both the TDA and the Permanent ACP and the best methodology to be adopted.</p> <p>26. The CAA explained they would have to have internal discussions that would be based on SSC submission of their proposed airspace segmentation.</p>													
	<p>27. Decisions. It was agreed that:</p> <ul style="list-style-type: none">- CAA would review previous minutes to determine the number of TDA activations under ACP-2021-090.- SSC would submit initial thoughts on the design of the TDA and the Permanent ACP and the segmented airspace.	CAA SSC												
6	Item 6 - Next steps													
	<p>28. The CAA will upload a statement on the portal regarding Step 1 which will confirm that the meeting was held on 31st Jan 2022 and the CAA agrees that the issues contained within the statement of need are appropriate.</p> <p>29. The CAA expect a draft copy of the minutes to be submitted to them by the 7th February 2022 and the agreed minutes uploaded to the portal by the 14th February 2022.</p> <p>30. SSC to provide the CAA with dates of the engagement start date, the formal ACP submission date. The date SSC need the decision by. The target AIC date and cut-off date.</p>	.												
	<p>31. Decisions. It was agreed that SSC would provide CAA with the following dates:</p> <ul style="list-style-type: none">- Aviation Stakeholder Engagement start date- Formal ACP submission date.- The date SSC need the decision by.- The target AIC date and corresponding sponsor submission cut-off date. <p><i>Post meeting note: The timeline as detailed below was agreed post Assessment Meeting.</i></p> <table><tr><td>Engagement Start</td><td>01 March 2022</td></tr><tr><td>Engagement Finish</td><td>31 May 2022</td></tr><tr><td>Formal ACP Submission</td><td>25 June 2022</td></tr><tr><td>CAA Decide</td><td>30 August 2022</td></tr><tr><td>AIS Sponsor submission cut-off</td><td>09 September 2022</td></tr><tr><td>Target AIC</td><td>20 October 2022</td></tr></table>	Engagement Start	01 March 2022	Engagement Finish	31 May 2022	Formal ACP Submission	25 June 2022	CAA Decide	30 August 2022	AIS Sponsor submission cut-off	09 September 2022	Target AIC	20 October 2022	SSC
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6	Item 6 - Any Other Business (AOB)													
	32. There were no items of AOB.													

ACTIONS ARISING FROM ACP -20211-090 ASSESSMENT MEETING

Action number	Subject	Name	Action	Deadline
1	Process Requirements	CAA	Send SSC: 1. NATMAC distribution list, 2. the template for the engagement strategy. 3. the link for the Iceland/Norway MOU	21 st Feb 2022 Completed on 2 nd Feb 2022
2	Provisional Timescales	SSC	Send CAA: 1. Dates of the engagement start date, 2. The formal ACP submission date. 3. The date SSC need the decision by. 4. The target AIC date and cut-off date.	21 st Feb 2022 Completed on 4 th Feb 2022
3	Paused ACP-2017-79	CAA	CAA to review previous minutes to determine the number of TDA activations under ACP-2021-090	28 th Feb 2022
4	Paused ACP-2017-79	SSC	SSC to submit initial thoughts on the design of the TDA and the Permanent ACP and the segmented airspace.	28 th Feb 2022

Shetland Space Centre
ACP Sponsor