



Department
for Transport

The Spaceflight Safety and Regulatory Council – Third Meeting **15.00-17.00, Wednesday 23rd November 2022 (Virtual Meeting)**

Attendees

Member attendance

- Gareth Alston, Government and Regulatory Affairs, OneWeb
- Andy Bradford, Co-Founder and CEO, UKLSL
- Mark Dickinson, Vice President of Satellite Operations, Inmarsat
- Stuart Fyvie (deputising for Mick O'Connor, Programme Director, Prestwick Spaceport)
- Lee Gilham, (deputising for Paul Williams, Executive Director, Black Arrow Space Technologies Ltd)
- Luis Gomes, Chief Executive Officer, AAC Clyde Space
- Akiko Hama, Client Executive Space and Aerospace, Global Aerospace
- Sean Hardacre, Managing Director, Deimos Space UK Ltd
- Dan Hart, Chief Executive Officer, Virgin Orbit
- Chris Larmour, Chief Executive Officer, Orbex
- Paul Livingston, Chief Executive, Lockheed Martin UK Ltd
- John Paffett (deputising for Melissa Thorpe, Head, Spaceport Cornwall)
- Andy Palfreyman (deputising for Phil Brownnett, Surrey Satellite Technology)
- Simon Potter, Head of Investment & Financial Consulting, Bryce Tech
- Mark Roberts, Managing Director, Gravitalab
- Steve Powell, Senior Campaign Lead, Qinetiq
- Jan Skolmli, Chief Commercial Officer, UK Space
- Alan Thompson (deputising for Volodymyr Levykin, Chief Executive Officer, Skyrora Ltd)
- Bhavin Vyas, Head of Space, ADS Group
- Joanne Wheeler, Managing Partner, Alden Legal (Co-Chair)

Department for Transport (DfT):

- Darryl Abelscroft, Deputy Director, Future of Aviation (Deputy Co-Chair)
- Paul Cremin, Commercial Spaceflight Policy & Regulation Lead
- Sue Watts, DfT Spaceflight Team (Secretariat)
- Jeremy Ketley, DfT Spaceflight Team (Secretariat)
- Neil Springate, DfT Spaceflight Team (Secretariat)

Department for Business, Energy and Industrial Strategy (BEIS):

- Kevin McLoughlin (deputising for Rebecca Evernden, Department for Business, Energy and Industrial Strategy)

Ministry of Defence (MoD):

- Emer Coyle (deputising for Air Vice Marshal Harvey Smith, CBE, OFC, DFC, Head of UK Space Directorate)

Apologies

- Rt Hon Jesse Norman MP, Parliamentary Under Secretary of State for Transport
- Phil Brownnett, Surrey Satellite Technology Ltd
- Scott Hammond, Shetlands Space Centre
- Chris Mutlow, Director, RAL Space
- Mick O'Connor, Programme Director, Prestwick Spaceport
- David Oxley, Space Hub Sutherland
- Stephen Vance, Director, CGI

Meeting observers & technical advisors

The Spaceflight Safety and Regulatory Council (SSRC) is formed of senior-level members from spaceflight industry, Government officials, and Ministers. It is representative of the segments of the commercial spaceflight industry that are impacted by the Space Industry Act 2018 and Space Industry Regulations 2021.

Observer status was offered to industry members who are not members of the Council and to other Government departments and the devolved administrations.

The meeting was also supported by technical advisors from the UK Space Agency, the Civil Aviation Authority, Air Accidents Investigation Branch, Health & Safety Executive, and Maritime Coastguard Agency.

Agenda

1. Welcome and opening remarks from the Co-Chair

Darryl Abelscroft (DA) (Deputy Co-Chair) welcomed delegates to the third meeting of the SSRC. The Minister for spaceflight, Jesse Norman, could not attend the meeting due to diary commitments, but would chair the next meeting in March 2023.

Members were reminded the Council did not operate under Chatham House rules and the meeting would be minuted and recorded, with the minutes made publicly available on the SSRC's GOV.UK page

(<https://www.gov.uk/government/groups/spaceflight-safety-and-regulatory-council>).

2. Minutes from previous meeting

DA asked for agreement of minutes of the previous meeting, held on 31st March 2022. The minutes were agreed.

3. Appointment of Co-Chair for the Council

The previous SSRC Co-Chair Chris McLaughlin was no longer a member of the Council. Therefore, under the Council's Terms of Reference it was necessary to appoint a new Co-Chair. The SSRC Secretariate reached out to Council Members asking for nominations for the appointment. Two nominations were received - Scott Hammond (Deputy CEO of SaxaVord Spaceport) and Joanne Wheeler (Managing Partner, Alden Legal).

As the post was contested a Ballot was held by the DfT Council Secretariate. An email was issued to Council members asking them to cast their vote for their preferred candidate, using a DFT ballot paper. Biographies for both candidates with reasons why they wish to be elected was also issued to Council Members. Completed ballot papers were returned to the SSRC Secretariate by 18 Nov 2022.

The result was confirmed by DA, who announced that Joanne Wheeler (JW) had been elected as Co-Chair of the SSRC. JW accepted the role, expressed delight at being elected, and identified the important role that the SSRC would have in the review of the Space Industry Act in 2023.

4. UK Government updates across UK commercial spaceflight

DA reported the first UK Spaceport licence had recently been issued by the CAA.

In June 2022, the space sustainability plan was published, which set out the steps for space to remain open safe and accessible.

Space Five countries (US, Canada, Australia, New Zealand and UK) met in London in September 2022 to discuss opportunities and areas for future collaboration.

Following the publication of the National Space Strategy in September 2021, work across Government continues to deliver on its commitments and strategic priorities.

5. Insurance and liabilities

Jeremy Ketley (JK) (DfT) presented the outcome of the June 2022 workshop which considered the benefits of an upper cap on launch operator liability and insurance and dual country licensing.

The key outcomes of the workshop were that:

- The launch industry value the certainty that comes from a planned launch being insurable – as this facilitates informed investment decisions and pricing for payload customers.

- The MIR approach is competitive compared to just setting a flat rate, but determinations come too late in the licensing process to provide quantifiable certainty on insurance costs.
- There is benefit in identifying and setting an upper flat rate that strikes a balance of enabling UK to have a competitive offer whilst maintaining appropriate risk sharing with HMG.
- That we should also develop proposals for a class-based approach – rather than a single upper cap.

Dan Hart (Virgin Orbit) said a consideration was simplicity. VO were not performing complex insurance analysis unless necessary, but that knowledge of the likely cost was essential before a commitment to launch could be made.

Kevin McLoughlin (KM) (BEIS) believed that there should be consideration of the orbital operation approach to liability and insurance. He encouraged working with BEIS to agree an approach.

JW agreed that the class of launcher need not be the sole factor but could be part of a series of criteria for a segmented approach. Industry feedback would help inform which criteria will be assessed.

Akiko Hama (Global Aerospace) agreed with the class-based approach but noted that it depended on how many classes were agreed and the ceiling of upper flat rate cap.

JK said that it would be necessary to reconcile the idea of simplicity with the desires for a class-based approach. In terms of risk the MIR approach is designed to be part of the licensing process.

Members agreed it was unlikely that a complex insurance process would be resolved rapidly.

The meeting agreed to consider trial case studies, with this taken forward outside the meeting. It was confirmed DfT is in contact with the Government actuaries to allow testing of models and their assumptions.

6. Space Launch and Orbit Group

Colin Macleod (CM) (CAA) presented on the Space Launch and Orbit Group (SPLOG) and its activities with the aim of emphasising the division of roles and responsibilities between the SSRC and SPLOG and Regulatory Advisory Group that deals with orbital policy.

In summary, the SPLOG meets every 3-4 months. A range of agenda items are covered depending on what is topical and what the CAA has identified regarding operational challenges. The meeting has led to continuous improvement within the CAA operation. Meetings had previously been online but were now hybrid with 20-25 present and another 25-45 joining online. With around 60-80 attendees a broad spectrum of expertise across the sector is represented, including operators, consultants, manufacturers, other Government departments and regulators.

CM provided members with an overview of the July and November meetings including airspace, the Marine Management Organisation (MMO), assessment of environmental effects, payload licensing and the space sustainability kitemark initiative.

CM explained the role of the MMO and it is responsible for marine licensing. The MMO had been very closely involved in the Virgin Orbit licensing application and the issue the licence.

CM reported airspace is proving to be a challenge for operators, Government, air traffic controllers and managers. A case study on the Virgin Orbit airspace application was outlined to members (the information was publicly available on the CAA's website). There was discussion on the challenge of airspace from the UK perspective, especially around the UK's proximity to other nations, other airspace providers and busy air routes.

7. CAA Perspective: Proposed Legislative Changes

Colin Macleod (CM) (CAA) outlined proposed legislative changes to the Council members following the recent licence applications and statutory tests. The items raised were intended to initiate and prioritise a discussion with Council members. It was agreed that it is the role Government (DfT& BEIS) to prioritise those items in accordance with their importance in terms of policy.

CM explained there had been some issues around the level of engagement with statutory consultees, including the Office for Nuclear Regulation and the Defence Safety Authority concerning the conditions of licences. Also, under current legislation, the statutory consultees must be consulted regarding orbital procurement licences and the CAA questioned if this was an oversight in the legislation. Although a minor example, it has an impact on the CAA. These bodies are statutorily obliged to provide responses and the CAA is required to give due consideration to their responses.

CM suggested the Section 11 security regulations had been challenging to implement during the licensing process and would welcome Government initiating work to review Section 11 of the regulations to simplify the process for operators to satisfy the regulator from a security assessment perspective in the most efficient way possible.

CM summarised another example where change could be considered around the space industry regulations. It was suggested there could be other routes through which the current reporting system could operate, potentially using other parties for data collection, to assist with oversight and monitoring of activity, and also the environmental impact assessment.

CM highlighted there were challenges around the way the legislation was written and can be interpreted. CM advised the CAA was trying work through this as effectively and efficiently as possible and remain within the legislation.

CM also highlighted the risk of challenge, including judicial review, around the licensing process. Challenges would cause delays for operators as the CAA may be required to repeat a stage in the process.

Paul Cremin (PC) (DfT) thanked CM for the useful feedback and asked for further information on CAA's concerns. CM agreed that more detail could be provided offline.

KM advised the CAA has compiled a spreadsheet on issues identified which logged the various experience highlighted across various parts of legislation. A more widespread review, both of legislation and regulation could take account of the CAA's experiences and serve as the basis for engagement by DfT and BEIS.

PC wanted to hear from the operators that are using the systems on their experiences. He explained there will be a review of the Space Industry Act in 2023, but not the Space Industry Regulations (2021).

CM emphasised that the presentation to the members focused on a small number of issues but, overall, the vast majority of the regulations and legislation was performing in the way that it was intended and that we are able to have a lot of flexibility around innovation.

8. AOB

DA thanked participants for their contributions for a productive meeting.

The next meeting of the SSRC will be in March 2023, with a date to be confirmed.

Meeting closed at 16.10.