

Cross-Party Group on Space

Wednesday 24 April 2024, 12:15 – 13:45, online

Minutes

Present

MSPs

Colin Beattie MSP
Jaime Halcro Johnston MSP

Invited Guests

John Ward
Andrew Strain
Mahesh Anand

Non-MSP Group Members

Alan Thompson
Alison McLure
Andy Nolan
Calum McCallum
Craig Clark
David Geen
David Sandy
Derek Harris
Derek Young
Jake Kelly
Jenny Gray
Julian Dines
Andrew Fournet
Jamie Halcro-Johnston MSP
John Young
Jonathan Orr
Karen Wilson
Keith Grandison
Keith Robson
Douglas Lyons
Peter Guthrie
Peter Young
Phil Chambers
Sandra Craig
Scott Hunter
Shane Clark

Sharon Parker
Victoria Mills (minutes)

Apologies

Beatrice Wishart MSP
Frank Strang
Peter Anderson
Grant Lewis
Nic Ross
Warrick Malcolm

Agenda item 1 - Opening remarks and welcome to new members

New members welcomed without objection:

Alison McLure, Head of the Institute of Physics in Scotland
Peter Anderson, Chief Commercial Officer, AAC Clyde Space

Agenda item 2 - Approval of minutes from last meeting & actions arising

Minutes approved without objections.

1. **Graeme Dey, the Scottish Government Minister for Higher and Further Education, will be invited to the next meeting to discuss skills and education.**
Carried forward
2. **Frank Strang and Ramsay Jones to update on event planning at the next meeting.**
Carried forward
3. **Colin Beattie MSP to review David Geen's contribution on ground-based space infrastructure.**
Complete
4. **Colin Beattie MSP to feedback the challenge of housing and associated services (dentists) in the Moray / Highland / Shetland area to the ministers, alongside the possibility of renting facilities as opposed to building.**
Carried forward
5. **Group Feedback: All members will provide input on the curriculum to address technical skills gaps and enhance softer skills. This feedback will be shared with Colin Beattie MSP.**
Carried forward
6. **New Voices Group: Colin Beattie MSP will engage with the New Voices Group in Space Scotland, facilitated by Hina Khan (Executive Director).**
Carried forward

7. Industry Connections for Colin Beattie MSP:

- **Nick Laird will provide contact information for Rob Hill (Kx) to discuss driving skills in education.**

Complete

- **Kristina Tamane will share contacts at Jacobs to discuss their National Space Skills Academy, as well as Stem Learning.**

Complete

- **Joanne Wheeler will share contacts related to the UK CanSat competition, the National Space Academy, and the Prospero Fellowship.**

Carried forward

- **Julian Dines will provide contact information for the STFC.**

Complete

- **Yvette Hopkins will share any relevant contacts from agencies or groups collating skills information.**

Complete

8. Stewart Miller and Joanne Wheeler to connect in order to link the National Robotarium and the Space Agency.

Complete

Agenda item 3 – Dr John E Ward, Senior Director of Research and Development, Spire

Title: 'Spire Satellite Manufacturing in Scotland: Navigating the Present, Charting the Future'

A data company with a proprietary satellite constellation, Spire specialises in raw data and analysis for decision-making and has expanded into space services. With over 100 satellites in orbit with its own network of ground stations to downlink data, 35 launch campaigns, and 450 employees worldwide, Spire's largest office in Glasgow focuses on engineering, manufacturing, and R&D.

Since its 2012 inception and Kickstarter funding, Spire has gone public and achieved over \$100 million in annual revenue by 2023. Data applications in maritime, aviation, weather prediction, and radio frequency intelligence for regulatory and national security.

Transitioned from semi-outsourced manufacturing model to customer-centric, Glasgow-based manufacturing, balancing cost, and risk with rapid design iterations. Spire aims to build larger satellite constellations and are considering outsourcing to enhance efficiency and cost-effectiveness.

Improvements are needed in local PCB assembly, additive manufacturing, and a supplier directory in Scotland.

In answer to one of the challenges noted above, Scottish Enterprise have a supplier directory available online: <https://space.directories.scot/>. All CPG members are encouraged to visit the website to update their own business' capabilities.

Agenda item 4 - Guest speaker – Andrew Strain, Chief Technical Officer, AAC Clyde Space

Title: 'Teamwork makes the dream work'

AAC Clyde Space was formed in 2018 when AAC Microtec acquired Clyde Space Limited. The company has expanded to include six group companies across multiple continents with almost 200 employees, 90 of whom are based in Glasgow.

Founded in 2005, Clyde Space started as a global exporter of satellite subsystems like PCBAs, power systems, and solar panels. The company was instrumental in developing Scotland's first satellite, UKube-1, and has supported satellite development for Wales and Ireland.

AAC Clyde Space specialises in CubeSat systems ranging from 3U to 16U sizes and provides systems for larger satellites.

The company delivers complete space missions, handling everything from concept to data gathering. They have worked on signal intelligence, Earth observation, and remote sensing missions. Their data services focus on agriculture and maritime tracking, utilising AI, and machine learning for analysis.

AAC Clyde Space has contributed to Scotland's position as a leader in small satellite production. They emphasise the importance of partnerships and collaboration within the space industry ecosystem, including working with universities and local suppliers.

The company is committed to sustainability, both in terms of the space environment and the industry's financial viability. They highlight the role of space data in monitoring and aiding planetary sustainability.

Despite Scotland's existing work in the space sector, the infrastructure is not there to support its growth. Space is dual-use sector and should aim to secure defence funding.

Both presenters highlighted the importance of test facilities; The Higgs Centre was established to support testing in space, but they are oversubscribed. An initiative is underway to identify existing facilities across Scotland, where the goal is to assess gaps and determine necessary investments.

Craig Clark & Julian Dines – work together to attract more funding into infrastructure development in Scotland's testing and scale-up facilities.

Colin Beattie MSP met with Richard Lochhead MSP. Warrick Malcolm is writing to the First Minister on behalf of the CPG, outlining the need for funding. Richard Lochhead MSP has been invited to join a CPG meeting.

Agenda item 5 - Discussion of work programme

Covered in actions arising.

Agenda item 6 - Guest speaker – Professor Mahesh Anand Professor of Planetary Sciences and Exploration, The Open University

Title: 'European Lunar Symposium 2024'

The ELS is the premier Moon-focused meeting in Europe, bringing together over 150 experts from around the world to discuss the latest developments in lunar science and exploration.

The ELS 2024 will take place at The Crichton Campus in Dumfries, 16 – 21 June, and delegates can enjoy exploring historic Langholm, Gilnockie Tower, and the Crawick Multiverse.

Interest in lunar exploration has surged, with renewed missions to the Moon. Over 25 countries have signed the Artemis Accords, committing to peaceful lunar exploration. The Artemis program, following Apollo, aims to return humans to the Moon by 2028-2029. Water discovered on the Moon makes it a valuable resource for sustainable space exploration.

All CPG members are invited to attend.

Agenda item 7 - AOB

Festival of Politics (19 – 23 August, Holyrood): Panel to be proposed with the topic line 'Scottish Globalism in Space; can Scotland do it better and share the benefits of doing it'. Chair and panellists to be confirmed.

Mimi's Space Adventure (Derek Young, Institute of Physics): Supported by a 'Space for All' grant from the UK Space Agency, and it's a comprehensive family program aimed at 7 – 10-year-olds, aiming to capture their interest in space. The IOP is seeking individuals who are happy to be featured as role models in the Scottish space sector for online profiles and inclusion in the book.

[IOP Mimi's Space Adventure, Expression of Interest \(smartsurvey.co.uk\)](https://smartsurvey.co.uk)

Previous book for reference: [Mimi's Rainbow Adventure | Institute of Physics \(iop.org\)](https://iop.org)

Featured role models: [Mimi's Rainbow Adventure: science role models | Institute of Physics \(iop.org\)](https://iop.org)

The team at IOP can be contacted on engagement@iop.org and are keen to hear of other ways that you, or other people you know, would like to engage with communities.

Agenda item 8 – Agreement of actions, next meeting date

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6. **Industry Connections for Colin Beattie MSP**
 - 1) **Joanne Wheeler will share contacts related to the UK CanSat competition, the National Space Academy, and the Prospero Fellowship.**
Carried forward
7. **Craig Clark & Julian Dines – work together to attract more funding into infrastructure development in Scotland’s testing and scale-up facilities.**
8. **Festival of Politics: Panel to be proposed, and topic confirmed.**

Date of next meeting - Tuesday 11 18 June 18:00 – 19:15

Please note that the Minister for Small Business, Innovation, Tourism, and Trade will now be attending the September meeting instead.

Meeting close