



## Provisional programme

### **Governing space activity in the 21st century**

Monday 13 – Wednesday 15 March 2017 | WP1526

This conference will bring together representatives of government, industry, and the scientific community from developed and developing nations to assess the prospects for improving the governance of human activity in outer space.

The economic security of countries is increasingly reliant on space-based technology and activities. There has also been a significant shift towards industry, rather than government, being primarily responsible for activity in space. Lines between commercial, government and defence systems in space have become blurred, and unilateral space activities are being replaced by bilateral, regional and multinational activities.

The growth in amount of human space-activity, coupled with the increased diversity of space operators, makes it both more complicated and more necessary to develop new norms and rules governing human activity in space. This conference will hear from a diversity of stakeholders on this topic with a particular emphasis on the voice of industry from emerging and established space faring nations.

#### Conference objectives:

1. To engage an international network of technical experts and policymakers to promote informed decision making, responsible behaviour and to share best practice and ideas.
2. To identify the areas of space activity where greater international cooperation is most needed, analyse potential pathways towards formal agreements or treaties, and assess risks and opportunities from a multisector perspective.
3. To work towards creating a more comprehensive rules-based framework on space activities that can underpin behaviour, build trust between states as well non-state actors, and create a formal set of norms for space to guide future developments.

**In association with the Federal Foreign Office, Berlin; Secure World Foundation; Foreign & Commonwealth Office, London; Airbus Defence and Space; US Department of State**

(Speakers invited and themes proposed, \* denotes confirmed)

**In association with:**

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# AIRBUS

## Monday 13 March

1300-1430

Participants arrive and buffet lunch available

1500

### Welcome and introduction

**\*Mark Smith**

Programme Director, Defence and Security, Wilton Park, Steyning

1515-1645

### 1. Security in space: technical evolution

What are the main opportunities for new and emerging actors (state and non-state) in space? What threats and risks in the space environment may challenge those opportunities? How are the risk and threat environments changing?

**\*Moriba Jah**

Director, Space Object Behavioural Sciences, The University of Arizona, Tucson

**Alice Bunn**

Director of Policy, UK Space Agency (UKSA), Swindon

**\*Martin Littlehales**

UK Security and Defence Marketing Director, Airbus UK, Stevenage

1645-1730

Photograph followed by tea/coffee

1730-1900

### 2. Security and governance in space: political evolution

How do state and non-state actors regard rules-based approaches to space governance? Do they feel stronger buy-in is necessary? What issues does the expansion of non-state activity in space pose for governments, and how should these be addressed? Do existing mechanisms work to ensure international openness, accountability and responsibility between governments and non-state actors, and where do they need improvement? How can non-state actors support and conform to a soft-space environment?

**\*André Ryppl**

Head of International Cooperation, Brazilian Space Agency, Brasília

**\*Victoria Samson**

Office Director, Secure World Foundation, Washington DC

**German MFA speaker on the PORBOS initiative - To be confirmed**

1930

Reception followed by dinner

## Tuesday 14 March

0800-0900

Breakfast

0915-1045

### 3. Space domain awareness and space traffic management

What technical and political issues currently face Space Domain Awareness (SDA)? Can commercial and non-state actors contribute to more effective detection and tracking of space objects? What is the scope for increased international collaboration to improve SDA and share data? What are the prospects for doing this in a multilateral setting? What technical and political issues currently face\* Space Traffic Management (STM), and what measures might ameliorate or overcome them?

**Marc Berkowitz**

Vice President, Strategic Planning, Lockheed Martin Space Systems, Sunnyvale

**\*Jeff DeTroye**

Senior Project Manager, Commercial Space Transportation, Federal Aviation Administration (FAA), Washington DC

**\*TS Kelso**

SDC Operations Manager, Center for Space Standards and Innovation, Wailuku

1045-1115

Tea/coffee

1115-1245

#### 4. Space debris removal and on-orbit servicing

What is the nature of the debris issue, and how can it be managed? At what point will we need to start removing debris to avoid unacceptably high risks of collision in orbit? What are the risks in removing debris, such as inadvertently exacerbating the problem or covert use of debris clearance/on-orbit servicing as a front for testing or deploying co-orbital space weapons? Are there norms/standards we would like to see governing this activity? How might debris and near-Earth objects be seen as sources of revenue rather than solely as hazards? What practical mechanisms of international collaboration to remove debris might be established? For example, could a fund be established, which companies could bid for to carry out a removal mission? What rules are required for the conduct of active debris removal issues and on-orbit servicing?

**Robin Biesbrook**

Team Leader and Concurrent Design System Engineer, European Space Agency, Noordwijk

**\*Stuart Eves**

Mission Concepts, Surrey Satellite Technology Limited, Guildford

**Vladimir Agapov**

Senior Scientist, Russian Academy of Sciences, Moskva

**\*Stuart Grey**

Lecturer, Aerospace Centre of Excellence, University of Strathclyde

1300-1430

Lunch

1500-1630

#### 5. New issues for space use

What rules/licensing procedures are required for the operation of large constellations of small satellites (so-called mega constellations). Should they be required to follow debris mitigation guidelines? Should they be required to have a manoeuvring capability? What rules or licensing procedures should be in place for space mining, and what are the challenges posed by this activity?

**\*Peter Marquez**

Vice President, Global Engagement, Planetary Resources, Washington DC

**Tony Azzarelli**

Vice President, Regulatory Affairs, Oneweb,

1630-1700

Tea/coffee

1700-1830

#### 6. Working groups

A round of group work. Each group will draft a set of actionable policy recommendations, which they will then put to the whole group for consideration:

**Group 1: TCBMs**

Where can transparency and confidence-building measures strengthen the working relationships between states and non-state actors? What channels exist to ensure space activities are communicated to all the necessary stakeholders (governments, agencies, companies, etc.)? This group to be tasked to come up with a top ten list of implementable

TCBMs for the next five years

### **Group 2: Legally-binding vs voluntary approaches**

What are the comparative prospects for a legally binding treaty on space versus voluntary approaches? What are the pros and cons of each approach? What would it take to make a legally binding treaty workable? Can it be achieved in principle? If so, can it be achieved in practice? This group to be tasked to come up with a top ten list of implementable norms or legally-binding proposals for the next five years.

### **German MFA to chair**

### **Group 3: Forums for government and industry collaboration**

How to build inter-agency working processes to address space issues? How can regional and international institutions such as the UN facilitate networks of expertise, and build external relationships on space activities? How can governments work with private actors on space safety? This group to be tasked to come up with a top ten list of implementable policy proposals for government/industry collaboration.

**1900**

Reception followed by Conference dinner

## **Wednesday 15 March**

**0800-0900**

Breakfast and checkout

**0915-1045**

### **7. Report back from group work**

A report from the previous day's working groups, followed by a discussion and vote on their proposals.

**1045-1115**

Tea/coffee

**1115-1125**

### **8. eQuestionnaire**

Completion of online eQuestionnaire

**1125-1245**

### **9. Conclusions: where next for the governance of human space activity?**

**Representatives of event partners**

**1300**

Lunch

**1400**

Participants depart

**This is a preview programme and as such may be subject to change.**

**This is an invitation only conference.**

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