

## Conference Report

### ***Introduction***

On 12 – 14 July 2011, a conference was convened in Prague entitled „Space Security through the Transatlantic Partnership“, co-sponsored by the European Space Policy Institute (ESPI) and the Prague Security Studies Institute (PSSI). It was the first non-governmental transatlantic conference of its kind dedicated to this topic with the participation of over one hundred senior space policy officials and high-level representatives of multilateral institutions, NGOs, academia, and industry from Europe, the U.S., and Japan. They included: the U.S. Departments of State and Defense, the U.S. Strategic Command; the European Space Agency (ESA); the European Council, the European Commission (EC), the European External Action Service (EEAS), the European Defence Agency (EDA); the European Union Satellite Centre (EUSC); the Japanese Ministry of Defense; Japan Aerospace Exploration Agency (JAXA); and the Strategic Headquarters for Space Policy in the Cabinet Office. The overarching goal of the conference was to solicit and assess both converging and diverging views on the multi-faceted subject of space security and seek to establish an on-going “Track II” non-governmental process designed to assist with the crafting of a future architecture for the management of this key dimension of space policy on a trilateral, and eventually global, basis.



### ***Summary of the Proceedings***

The shared interest of Europe, the United States and Japan in strengthening space security is growing steadily. There is a common view of the pressing need to safeguard space-based assets, which perform essential tasks for most of the world’s population, as well as to ensure free access to, and responsible behaviour in, space. The conference was comprised of five panels over the period of one and a half days covering the following topics:

- Defining space security for the 21<sup>st</sup> century
- Transatlantic approaches to international space security cooperation
- Governance of space activities
- Security policy dimensions of Space Situational Awareness
- Transatlantic space crisis management for the future

### ***Defining Space Security for the 21<sup>st</sup> Century***

Beyond the two traditional space powers, the U.S. and Russia, Europe and other new actors have changed the geostrategic setting in space (particularly China) and will shape space policies, and associated national policy decision-making, for the 21<sup>st</sup> century. Several conference participants noted that space is not a sanctuary. It is borderless with predictable orbital paths and assets that are vulnerable. Although nations will differ in what is viewed as an appropriate response to an incident or conflict, there is a need to forge a common understanding of space security “red lines” of acceptable behaviour. Space assets (including ground-based) are properly regarded as critical



infrastructure and their disruption or damage would result in far-reaching economic, political, and geostrategic consequences. As space has become more congested, contested and competitive, a number of speakers indicated that there is a desire to strengthen diplomatic channels and promote measures to enhance stability, including best practices guidelines, prior notifications of launches of space vehicles, and closer coordination (including joint ventures). With the increasing presence in space of private operators, it is vital to integrate them into international space security initiatives and dialogues. There was also a general view expressed that organizations such as NATO need to determine their role in the future architecture of space security.

#### *Transatlantic Approaches to International Space Security Cooperation*

Several participants observed that the transatlantic partnership in the field of space security is only now developing. The European Union (EU) is a new actor in this field and is interested in pursuing enhanced international cooperation. In this connection, the U.S. wishes to see the EU, and relevant European institutions and Member States, as global players with substantial influence. Recommended preconditions to implementing meaningful transatlantic cooperation on space security are firm political leadership, shared interests, realistic milestones, technological capabilities, and trust in handling sensitive data and information. By establishing its own brand of diplomacy, Europe could also contribute indirectly to U.S. space diplomacy, for example, by bringing actors like China and Russia into the transatlantic dialogue. Japan could play a similar recruiting role among Asian space-faring nations and aspirants. In terms of global space diplomacy, the draft Code of Conduct for Outer Space Activities introduced by the EU represents the leading collective action to date for the protection of the space environment. It is a document which encourages responsible behaviour in space on a voluntary basis. There was general agreement that the Code is not meant, or well-suited, to resolve conflicts in space. Besides the Code, Europe, the U.S., and Japan should stake out mutual positions concerning the Group of Government Experts on Outer Space TCBMs in 2012 and the UN Committee on the Peaceful Uses of Outer Space (COPUOS) working group on long-term sustainability.

#### *Governance of Space Activities*

There was broad agreement that, beyond the provisions of the Outer Space Treaty (OST), there exists an increasing demand for new norms, rules, and soft law. Space governance involves strategy, a budgetary framework, development of infrastructure, and regulatory requirements. Challenges to space security need to be publicly debated using various platforms. The COPUOS is the most comprehensive policy forum to seek modalities to increase the stability and sustainability of space activities. It is a venue that involves space experts and deals with practical issues (unlike the Conference on Disarmament that emphasizes arms control and is highly ideological). Outside the COPUOS, the draft Code mentioned above constitutes a first step toward creating political, rather than legal pressures. The theory is that understanding what constitutes responsible behaviour increases strategic stability. It was acknowledged that nations should develop their own “best practice” policies and procedures, including effective enforcement measures. In this connection, private sector initiatives, including the Space Data Association (SDA), should be incorporated into space policy decision-making. To improve governance, better coordination between governments and private operators, as well as the pursuit of bilateral agreements, were among the steps discussed. The involvement of emerging space powers (e.g. China, India, Australia, Brazil, etc.) in space governance deliberations is likewise deemed desirable.



### *Security Policy Dimensions of Space Situational Awareness*

Space Situational Awareness (SSA) is regarded as a lynchpin capability for ensuring the safety and security of satellites and spacecraft and enabling the monitoring and understanding of a constantly changing space environment. SSA is not an end in itself, but a method for safeguarding national security assets and sovereignty. The U.S. has the world's most comprehensive SSA capability and Europe is seeking to develop an autonomous capability. Incorporating NATO as a player in a transatlantic SSA configuration seems to some an appropriate move. SSA is also a highly useful diplomatic tool and the sharing of SSA data constitutes one of the most potent, globally-available space transparency measures. It likewise contributes to managing the pressing issue of orbital space debris. Coordination and shared input are essential to improving the future upgrading of SSA tools and possibilities for interoperability. The involvement of the private sector and intergovernmental institutions in any global SSA efforts is essential. In short, it is important to strengthen collective capability to face new challenges such as flying formations (clusters) of small satellites.

### *Transatlantic Space Crisis Management for the Future*

Crisis management is complex and necessitates an understanding of the type of crisis (man-made or natural), the assets involved (their size and purpose), the nature of the crisis (isolated or occurring among several assets) and the global geopolitical environment. The primary objective of space crisis management is to avoid conflicts or disruptive "incidents" in space. The growing dependency on space assets has revealed weaknesses in dealing with space emergencies. There are at least three activities that can be pursued in peacetime: promoting the responsible use of space; deterring attacks or purposeful disruptions; and the building of international partnerships. A robust space crisis management posture can also reduce the possibility of terrestrial conflict. Part of crisis management is considering vulnerability, redundancy, and ability to reconstitute, not only for military, but also civilian assets. Crisis management also involves detailed operational aspects. The Shriever wargames, for example, facilitate testing how technologies and different groups may interact in crisis circumstances. Cooperation in crisis management among governments, and governments and private operators, requires joint standards and exercises. The goal is to make reacting to many space-related contingencies a routine exercise.

### **Current Outlook**

There is now a widespread recognition of global dependency on space systems accompanied by a desire for maximum autonomy in a number of areas. Collaboration in space is viewed as the only sustainable path forward. A strong transatlantic partnership, together with Japan, is a key engine that can build on shared values and security interests. This like-minded alliance group can serve as the template for global cooperation and set meaningful standards. Virtually all space-faring nations desire to mitigate orbital debris, secure free access to space and avoid misunderstandings, mishaps, and misperceptions. Given the complex space environment involving new actors and technologies, there is a need for more creative transparency and confidence-building measures (TCBMs), especially given the fact that no new viable space treaty has been proposed. The concept of Space Traffic Management (STM) also warrants further examination.

### ***Conclusion and Recommendations***

The Prague conference was universally regarded among the participants as an important contribution to this rapidly emerging issue area and unique in its ambition to push the envelope of trilateral discussions on space security beyond the limited scope of current deliberations. Currently a sizable void exists in the allied space security dialogue. During this “Track II” kick-off event, the door was opened on a range of less-acknowledged areas of space security, including: the robust counterspace activities of China; the implications of the dual-use nature (i.e. equipment and technology with both civilian and military applications) of much of the space infrastructure of allies and adversaries; and the absence of many threat scenarios in the planning of influential managers of national space assets.

The conference participants expressed support for continuing to develop this new “Track II” initiative. The immediate next steps will include preparing a conference report that lists the most relevant areas of space security discussed at the conference that could benefit from further dialogue, research and trilateral exchanges. Such a report should also emphasize those dimensions of space security that hold the most potential for ground-breaking advances in transatlantic and trilateral cooperation and communication (e.g. transparency and confidence-building measures, counterspace contingencies, SSA, etc.). Some of the recommendations put forward included:

- Integrate space security into broader foreign policy and international security deliberations
- Exploit the EU – US dialogue as an important platform for space security discussions, accompanied by NGO expert groups
- Involve commercial operators in policy debates on major issues, including unintentional interference; regulatory compliance; access to space; SSA and collision avoidance; and cyber security
- Identify guidelines based on common understandings which define responsible behaviour in space
- Seek better understanding of the connective tissue among SSA, TCBMs and crisis management
- Continue to engage governments in forging a better understanding of the draft Code of Conduct for Outer Space Activities
- Identify several concrete activities for initial practical collaboration
- Explore establishment of a combined space operations centre as a vehicle for closer cooperation, including the sharing of information on the space environment, objects, and interference
- Examine the prospects for multi-layered coordination ranging from incidents to major threats via engaging in joint exercises between governments and private operators (beyond the Shriever wargames) to establish a crisis response roadmap
- Assess the potential of joint US – EU – NATO exercises on different contingencies associated with transatlantic crisis management pilot projects
- Involve Japan’s space security stakeholders as full partners in transatlantic space security deliberations
- Understand the potential consequences of space failures in the context of terrestrial crises (including economic and civilian aspects)
- Identify the next venue for “Track-II” exchanges among the independent space policy communities, the broader foreign policy and national security agencies, the academic communities and industries of Europe, the U.S. and Japan.