

## **Promoting Cooperative Solutions for Space Sustainability**

## Exchange of Views Statement, United Nations Committee on the Peaceful Uses of Outer Space February 2011

Mr. Chairman, on behalf of Secure World Foundation, I would like to offer congratulations on your excellent guidance of this subcommittee. Secure World Foundation looks forward to supporting you and the work of the Subcommittee in any way it can.

We also note the continued outstanding efforts to support the peaceful uses of outer space by the Office of Outer Space Affairs (OOSA) under the direction of Dr. Mazlan Othman. We are confident that this subcommittee and OOSA will continue successfully to provide support for the peaceful uses of outer space resources, especially for emerging space States.

Secure World Foundation feels that Permanent Observers have an important role to play in support of the work of COPUOS and we have designed our agenda to assist as best we can. In what follows I will outline some of the activities in which we have engaged since June 2010 that illustrate our efforts to support the peaceful uses of outer space. I have grouped them in the four major themes that define our program: space sustainability; development of space policy and space law, especially in emerging space States; support of human and environmental security; and planetary defense. Detailed summaries of these activities can be found on the SWF website: www.swfound.org.

1. **Space Sustainability,** ensuring that all humanity can continue to use outer space for peaceful purposes and socioeconomic benefit.

The Continuing Story of Europe and Space Security: In October 2010, SWF teamed up with the Parisbased Institut Français des Relations Internationales (Ifri) to hold a conference in Brussels that explored progress in Europe's security-related space policies and compared them with similar developments in the United States. This was the first event held by SWF after establishing an office in the city. The report of the conference can be found on the Ifri and SWF websites.

**Planetarium Show:** SWF, in partnership with the University of Colorado's Fiske Planetarium and with One Earth Future Foundation have produced a planetarium show designed for the general public entitled "The Crowded Sky" that illustrates forcefully the issues faced by space operations, given the increasing crowding in key orbits and the proliferation of new satellites and additional debris in orbit. A second show that illustrates the life cycle of a satellite is under preparation and will be released this year. Both shows will be made available for free to over 800 planetariums around the world.

**Beijing Orbital Debris Mitigation Workshop:** In October 2010, SWF teamed up with the Astronautics Department of Beihang University in Beijing and the International Space University on an international workshop that explored orbital debris mitigation. University experts from Canada, China, Germany, Japan, Russia, Spain, the United Kingdom, and the United States presented proposals for removing debris from orbit and shared progress in small satellite research and development. Additional presentations examined the policy and legal issues that surround debris removal.

**Space Science and Security: The Role of Regional Expert Discussions.** This January, SWF partnered with the Swedish International Peace Research Institute (SIPRI) and the Indian Observer Research Institute (ORF) in a workshop that explored the military, technical, and security aspects of space systems and how they affect the overall Asian regional security dynamic. A follow-up presentation on the findings of this workshop will be held in Washington, DC this month.

Space Security Index: This annual report is the premier analytic summary of space security related activities around the world. Secure World Foundation contributes directly to the research, writing and production of the SSI, which yearly captures the global space related events from the previous year and assesses their impact on space security and sustainability. It has become the global reference on this subject. Supported by financial contributions from the Government of Canada, the Simons Foundation and Secure World Foundation, the Canadian organization Project Ploughshares manages the research and oversees report creation and publication. In 2010, SWF worked with Project Ploughshares to ensure that the executive summary of the report was ready for distribution for the first time at the June meeting of COPUOS. We have made this a goal for 2011 and beyond.

**2. Space Policy and Space Law Development** through assisting emerging space States in the development of effective space policies.

**Space Conference of the Americas**—As part of our on-going effort to assist in and advocate for the creation of national space policies in Latin America, SWF was a sponsor of the November, 2010 conference in Pachuca, Mexico, assisting several delegates from developing countries to attend. At the conference, SWF made three invited presentations on space policy and space law. SWF also assisted in supporting the youth forum, which was attended by some 200 young people interested in space activities.

**3. Support of Human and Environmental Security** through maximizing the international cooperative use of space systems for the benefit of humanity.

**Building upon Regional Space-Based Solutions for Disaster Management and Emergency Response for Africa**—In July 2010 SWF joined the Austrian government in co-sponsoring this important regional workshop, which was organized by UN-SPIDER. This workshop focused on space-based information for disaster risk reduction and emergency management for the African continent. It attracted over 80 key decision makers and senior experts from the space community and also from the disaster risk reduction and emergency response communities.

**Space Generation Congress: Climate Project:** In October 2010, SWF partnered with Space Generation at its yearly congress on a project focused on the challenges of using spacebased and other technologies for monitoring global climate. This was one of five projects the 100 congress participants tackled. During the congress, delegates were asked to review the policy and practical issues behind international sharing of data collected not only by satellites but also by community remote sensing technologies via smart phones and other social media.

Workshop on Community Remote Sensing: Community remote sensing (CRS) has been defined as "A new field that combines remote sensing with citizen science, social networks, and crowd-sourcing to enhance the data obtained from traditional sources", such as spacebased and aircraft Earth observations. SWF developed this workshop, held in September 2010 in partnership with the research office of the U.S. Department of Homeland Security, to assist the department in evaluating such methods for its use. Participants included experts who were already using CRS methods to further their research or space applications. This workshop especially assisted SWF in understanding the advantages and drawbacks of using such systems to strengthen the utility of spacebased data.

*Imaging Notes Magazine:* This project continues the partnership started in 2008 with Blueline Publishing on the quarterly magazine, *Imaging Notes*, which presents material on the use of space and other EO systems for environmental and human security. Each issue is available for free in hard copy and also on the internet. *Imaging Notes* and SWF welcome articles from COPUOS participants. See http://www.spaceimaging.com for information on how to submit an article.

**4. Planetary Defense:** Promoting a unified international policy approach to protection of our planet from the threat of near Earth objects (NEOs).

Mission Planning and Operations Group (MPOG) Workshop: In late October 2010, SWF partnered with the Association of Space Explorers and the European Space Agency (ESA) to host a workshop in Darmstadt, Germany on Mission Planning and Operations, to explore mission planning possibilities in response to the threat of an asteroid strike. Several space agencies, including ESA, NASA, the German Space Agency (DLR), the French Space Agency (CNES), and the United Kingdom Space Agency, took part. This workshop was in direct support of COPUOS Action Team-14 and follows a January 2010 workshop that explored the Information, Warning and Analysis Network (IWAN) component, recommended by a key report of the Association of Space Explorers on responses to asteroid threats.

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**The Secure World Foundation website:** Finally, in an effort to make our website more accessible, last year SWF totally redesigned it. In the new website, delegates can find papers, presentations, workshop summaries and other information products produced by our staff, most of which pertain to the work of COPUOS. I recommend it to you: www.swfound.org

In conclusion, Secure World Foundation is dedicated to maintaining the secure and sustainable use of space for the benefit of Earth and all its peoples. It acts as a research body, convener and facilitator to advocate for key space sustainability and other space related topics, examining their influence on

governance and international development. The Foundation believes that the challenge of sustaining the space environment into the future must be dealt with in a truly international, cooperative manner.

Secure World Foundation strongly supports the work of COPUOS. As the benefits of space activities expand and improve, keeping outer space available for peaceful activities will become ever more important. As the space age evolves, the world community has a unique opportunity to safeguard the secure and sustainable use of the space environment. We look forward to continuing to support the Committee's efforts to achieve such a future.

Many thanks.

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