

March 31, 2009

Improving Our Vision III: Third Installment on State of Space Situational Awareness

A recent collision between spacecraft and close encounters with orbital debris by the crew of the International Space Station has heightened interest in taking new steps in space traffic management (STM). Space situational awareness (SSA), a key component of any STM system, was the theme addressed by leading experts attending *Improving Our Vision III*, held March 23-24 at [Intelsat](#) headquarters in Washington, D.C. This conference was the third in a series. The first meeting was held in Colorado Springs, Colorado in 2006 and the second in London in 2007 at [Inmarsat](#) headquarters.

The one-and-a-half day event was sponsored by a partnership between [Secure World Foundation \(SWF\)](#), [Eisenhower Center for Space and Defense Studies](#), the [Center for Defense Information \(CDI\)](#), the [George C. Marshall Institute](#) and Intelsat. "SSA is one of the most important space issues of our time," said [Dr. Ray Williamson](#), SWF Executive Director.

The conference brought together representatives from the military, civil space agencies, satellite companies and non-governmental organizations from several States, including the US, Europe, Japan, Canada, and Russia. The objective of the meeting, according to Dr. Williamson, was "to find ways to provide crucial SSA awareness information to space system operators."

Among topics spotlighted at this year's event was a discussion of the next phase of [Air Force Space Command's Commercial and Foreign Entities \(CFE\)](#) program. This program currently provides public access to much of the space surveillance data collected by the US military. The next phase could provide more accurate data, advanced services such as conjunction assessment, and anomaly resolution. The conference also included a demonstration by the [Center for Space Standards and Innovation \(CSSI\)](#) of its [SOCRATES-GEO](#) data center that combines owner-operated positional data with the public US military data to provide a conjunction assessment service for participating geostationary commercial operators.

SWF believes that there needs to be an international civil element to any SSA system, noted [Brian Weeden](#), SWF's Technical Consultant. Accurate tracking of all objects in Earth orbit requires a geographically distributed network of both radar and optical telescopes. "Such a network is very expensive to create and maintain, and only the United States has thus far developed one," Weeden pointed out. "While the United States' space surveillance network does provide the most complete SSA data in the world, it still has significant limitations due to the lack of coverage in areas where the United States does not have a presence, and a multilateral solution could provide capability to the US for a lot lower cost." In addition to global sensor coverage, an international civil SSA system must also include data from commercial satellite owner-operators: these entities have data on the locations of their satellites more accurate than any ground-based sensor could obtain. "The key to making such a system work is in the data sharing model, along with finding the right balance between safety and security" Weeden said.

Secure World Foundation Partners with *Imaging Notes*

In March, SWF formerly announced a new partnership with [Imaging Notes](#) magazine. *Imaging Notes* is a premier publication for commercial, government and academic remote sensing professionals around the world. The quarterly magazine is also affiliated with the [Alliance for Earth Observations](#), a program of the [Institute for Global Environmental Strategies](#).

A key effort of SWF centers on strengthening or developing the policies and institutions that improve the utility of space technologies in support of human and



Intelsat headquarters in Washington, DC.

Courtesy: Intelsat.

News Bits

SWF is pleased to announce that **Victoria Samson**, formerly of the Center for Defense Information (CDI) has been hired on as our Director of Washington, DC Operations. Her areas of interest include missile defense, nuclear reductions, and emerging weapons technologies. Samson, the author of numerous op-eds, analytical pieces, journal articles and electronic updates on missile defense and space security matters, provides an objective assessment of U.S. policy. Samson has an M.A. in international relations from the [Johns Hopkins School of Advanced International Studies](#). She also holds a B.A. in political science with a specialization in international relations from [UCLA](#).



SWF Executive Director **Ray Williamson** attended the [International Astronautical Federation](#) planning meeting in Paris, France this month, where he learned that the SWF proposal for a Plenary Session at the [October 2009 International Astronautical Congress in Daejeon, S. Korea](#) had been accepted by the International Program Committee. The Plenary, with presentations by well-known experts on space security, will focus on Achieving a Sustainable Space Environment for Future Space Activities.

From March 19-20, SWF co-sponsored a Space Deterrence Workshop in Washington, DC, with



environmental security needs. “Space systems can provide significant benefits to humanity but they are generally underutilized,” said Dr. Williamson. “This partnership with *Imaging Notes* magazine provides an important vehicle for our efforts to make more effective use of space tools to enhance human and environmental security.” Dr. Williamson also serves as editor of *Imaging Notes*.

“In the four years since *Imaging Notes* has been independently owned, the links have been more widely recognized among national and global security, climate and environmental changes, renewable energy, and human security,” said [Myrna James Yoo](#), Publisher and Managing Editor of the magazine. Now understood, Yoo added, is that remotely sensed data is key for understanding and addressing these

most important, interrelated issues of our time. *Imaging Notes*, with its focus on applications of remote sensing and geospatial technologies, Yoo concluded, “is the ideal vehicle to deliver the messages of SWF—long-term space security, with the ultimate goal of long-term human security.”

Dr. Williamson explained that the magazine will continue to solicit informative articles on the “what, wherefore, and how to” of meeting human and environmental security needs, and will be adding the dimensions of international policy—legal and institutional mechanisms needed for ensuring that the benefits of space activities reach people effectively and efficiently. “With its partnership with SWF, this magazine is dedicated to offering timely, insightful applications articles on solutions to human security needs,” Dr. Williamson said. “Future issues will cover the roles of satellite observations and geospatial technologies in understanding and responding to global change, in natural disaster mitigation and response, and in preventing the sorts of human-made disasters that directly harm our security on this planet,” he said.

Canadian Leadership in Space: International Experts Discuss Desire for Cohesive Policy

The need to shape a Canadian space policy was addressed by a special roundtable of international experts meeting in Ottawa on March 12. The discussion focused on what is required to spur government action on space activities. The *2009 Roundtable on Space - New Horizons at Home and Abroad* was held at the Novotel Hotel in Ottawa. SWF partnered with Canada’s [Rideau Institute on International Affairs](#) on an exploration of Canada’s need for a comprehensive Canadian space policy.

Participants addressed a range of Canadian space issues, from advancing a space policy that works for all stakeholders to formulating an action plan for the year to further Canada’s objectives in using space systems. “Many Canadian ministries make use of space systems to bring services to Canadian citizens,” said Dr. Williamson. “However, without a government-wide policy to focus and guide Canadian space activities, the ministries’ efforts tend to be uncoordinated and less efficient than they could be.” Dr. Williamson underscored the important role that The Rideau Institute is serving, endeavoring to forge a consensus about space and the benefits that space systems provide among Canadian stakeholders.

the Air University’s [National Space Studies Center \(NSSC\)](#), the [Naval Postgraduate School \(NPS\)](#) and [The George Washington University](#). The workshop, organized by SWF Legal and Policy Consultant [Ben Baseley-Walker](#), featured

The Month Ahead

extensive discussions on the difficulty of applying applicability of traditional deterrence concepts to protecting space assets. Presentations on the unique threat environment in space, Chinese perspectives on space deterrence, possible lessons from cyber deterrence for space, and the possible need to recast the U.S. vision for future space security were additional areas of focus. SWF’s Brian Weeden also spoke on the option of non-offensive “denial deterrence” via redundant distributed constellations of satellites. Participants included military officers, defense officials, and academics from many backgrounds. All agreed that the discussions had been fruitful in broadening their understanding of the issue.

March 30-April 2 (Colorado Springs, Colorado)

[National Space Symposium](#) in Colorado Springs. [Phil Smith](#) will be presenting on panel moderated by [Holland & Hart](#) attorney and SWF Advisory Committee member [Rachel Yates](#). [Agnieszka Lukaszczyk](#) will be moderating a panel on behalf of the [Space Generation Advisory Council \(SGAC\)](#).

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April 2 (Boulder, Colorado)

[Space Security Lunch Series](#), Dr. [Marshall Kaplan](#) of [Johns Hopkins Advanced Physics Laboratories \(APL\)](#) will be presenting.

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April 13-14

According to [Anthony Salloum](#), Program Director of the Rideau Institute, the roundtable provided “a critical opportunity for a timely exchange of ideas between the [Canadian Space Agency](#) and key stakeholders. It is designed to spark new ideas on advancing a national space policy for Canada that has, at its core, a vision for Canada’s role in space that takes into account our national interests and commitment to the sustainable use of space.”



Salloum

Emerging strategic plans

The roundtable brought together about 40 representatives from key federal government departments, elected representatives, the space sector and academia, as well as experts from the United States. Participants discussed emerging strategic plans for the Canadian and international space sector, and ways to help advance a cohesive vision for Canadian leadership in space. Representatives at the day-long roundtable included the [Institute of Air and Space Law](#) at [McGill University](#), the Canadian Space Agency, [Canadian Auto Workers](#), [Telesat Canada](#), the [Canadian Space Commerce Association](#) and the [Canadian Space Society](#).



Logsdon

A discussion of U.S. space policy under U.S. [President Barack Obama](#)’s Administration was moderated by SWF’s Brian Weeden. The panel included [Dr. John Logsdon](#), Charles Lindbergh Chair in Aerospace History at the [National Air and Space Museum](#) and SWF Advisory Committee member, who presented on the subject of the Obama Administration’s possible influence on U.S. civil space policy.

(Washington, DC)

[National Defense University \(NDU\)](#) Workshop, NDU at Fort Lesley J. McNair, Washington, DC. **Brian Weeden** will be presenting.

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April 23-24

(Lincoln, Nebraska)

[University of Nebraska Near Earth Object Conference](#). **Dr. Ray Williamson, Brian Weeden, Ben Baseley-Walker** and **Agnieszka Lukaszczyk** will be participating.

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April 27-30

(Granada, Spain)

The [1st International Academy of Astronautics \(IAA\) Planetary Defense Conference](#): Protecting Earth from Asteroids. **Dr. Ray Williamson** and **Brian Weeden** will be presenting.

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April 28 to May 1

(Boulder, Colorado)

[Space Weather Workshop](#). **Dr. Suzanne Metlay** will present, **Phil Smith** will be attending.

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For past issues of our newsletter, please go [here](#).