Marcia S. Smith's Presentation

to the seminar on

Space Security Index 2009: The Status of and Future Trends in Space Security

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I'd like to thank the Canadian Embassy, the Secure World Foundation, and Project Ploughshares and the Space Security Index, for the opportunity to speak with you this morning.

The Space Security Index defines space security very broadly as:

"The secure and sustainable access to, and use of, space
and
freedom from space-based threats"

In my mind, the key components are how well the space-faring countries are working together, including adhering to treaties and other agreements, and the extent to which countries are developing – or not – weapons to attack orbiting satellites.

My assessment is that 2010 has some encouraging signs as well as some discouraging signs, along with at least one "interesting development to watch."

Encouraging Signs

One piece of good news I saw recently is that the Doomsday Clock - a barometer of nuclear danger created by the Bulletin of Atomic Scientists 55 years ago - has been moved one minute further away from the "midnight hour." They said they moved it back because of a "more hopeful state of world affairs" because there is a "growing political will" to deal with both the "terror of nuclear weapons" and "runaway climate change."

Though their concerns are not specifically space security, I agree that there are reasons for optimism today in terms of how the major space-faring nations are getting along.

From governmental and private sector discussions about limiting space debris, to the International Committee on Global Navigation Satellite Systems, to the international Group on Earth Observations, to the International Space Station, to the Framework for Global Exploration of Space, international cooperation and coordination seem to be booming.

While we are still waiting for the Obama Administration's space policy, it certainly appears that international cooperation will be a significant element of it.

Dick Buenneke of the State Department gave a talk at George Washington University in November that was the most illuminating speech I've heard on what is going in the development of the Obama Administration's space policy. For those of you who weren't there or haven't had a chance to read it on the Web, here are some highlights. I apologize for the length of the quotes, but I really think they are interesting.

Dick said that the "The U.S. review of space cooperation includes "blank slate" analyses of options such as:

- "The feasibility and desirability of effectively verifiable arms control measures which support the national security interests of the United States, its allies and all spacefaring nations;
- Potential reforms to the U.S. export control system for space goods and services, as part of a broad-based review of the overall U.S. export control system;
- Coordination with friends, allies and trading partners on common arrangements to prevent the transfer of dual-use space capabilities to unauthorized destinations;
- Expanded cooperation with allies and partners on capabilities to enhance shared security interests, and
- Enhanced cooperation with established and emerging spacefaring nations on the peaceful exploration and use of outer space for civil and commercial applications"

Dick also pointed out that the U.S. had made a statement to U.N. First Committee in October that offered a glimpse into more aspects of the Obama Administration's current thinking on space policy. As you probably know, the U.N. First Committee deals with disarmament and international security issues.

The statement, which also is on the Web, was made by Garold Larson, and the upshot seems to be that the U.S. will focus on non-binding "soft law" approaches to space security. He said that the United States would work with the European Union and "other like-minded nations to advance a set of voluntary bilateral "transparency and confidence building measures" (TCBMs) that could lead to multilateral TCBMs. Larson said that these TCBMs could increase transparency, reduce uncertainty, and decrease the risk of misinterpretation or miscalculation.

He then stated that the United States will –

- uphold the principles of the 1967 Outer Space Treaty

- continue to support the inherent right of individual or collective self-defense, as reflected in the U.N. charter
- reject limitations on the fundamental right of the United States to operate in, and acquire data from, space
- conduct U.S. space activities in accordance with international law
- highlight the responsibility of states to avoid harmful interference to other nations' peaceful exploration and use of outer space, and
- take a leadership role in international fora to promote policies and practices aimed at debris minimization and preservation of the space environment.

During his campaign, President Obama promised to seek "a code of conduct for space-faring nations, including a world-wide ban on weapons to interfere with satellites and a ban on testing antisatellite weapons." Larson said that the United States had been having fruitful discussions with European countries on Europe's draft code of conduct for outer space activities, but then returned to the discussion of bilateral and multilateral TCBMs. The draft code of conduct is, of course, based on confidence building measures so they are not mutually exclusive, but I couldn't quite glean from Larson's statement if the U.S. is backing away from the draft code of conduct or not. Perhaps others here this morning can shed some light on that.

Having said all that, there is much that we do NOT know about what the President's space policy will say. President Obama has initiated three space policy reviews, and only one has been released – the Augustine committee report that lays out options for human space flight and we still don't know what the decisions are that will be taken based on those options.

We are waiting on the results of the other two Administration reviews:

- the broad review of U.S. space policy being led by the National Security Council, and
- a review of export control policy, which reportedly is due by January 29

In addition to those is the congressionally required DOD Space Posture Review, which is supposed to feed into the DOD's Quadrennial Defense Review (QDR), but there are recent reports that the Space Posture Review could be as much as a year late while the QDR reportedly remains on track to be released very soon.

We seem to be up to our ears in reviews! Decisions – not so much.

Presumably we will know more on February 1 about some of these policies when the FY2011 budget is released because -- it is sad but true that budgets ARE policy. Still, there are aspects of policy that are not connected to budget decisions, so we will have to be patient.

But based on what is in the public domain so far, I find the situation encouraging from a space security standpoint.

Discouraging Signs

Still, globally speaking, there are signs of concern.

India's assertion that it is developing technologies for a kinetic kill ASAT is discouraging. One would have thought that the uproar over China's 2007 test would be enough to dissuade anyone else from developing a kinetic kill ASAT, but apparently not.

Iran's first successful space launch last year, and North Korea's continued attempts to launch a satellite, remind us that some of the new and emerging entrants into the space arena may have different perspectives and goals than the more traditional spacefaring countries.

The Iridium-Cosmos collision last year highlights the need for better space situational awareness and coordination between governments and the private sector. While this has become "Topic A" and many discussions are ongoing, and the Air Force has agreed to do "conjunction analyses" on many more objects, it is not clear how long it will take for significant improvement to be achieved.

Interesting Development to Watch

There is one other topic I'd like to get on the table even though I'm running out of time.

I wonder if the U.S. decision to end its ability to launch astronauts into space and rely on Russia for an indefinite number of years will change any of the dynamics in international cooperation and space security generally.

Russia has done an impressive job of turning its space program – including human spaceflight – into a money-making enterprise. A year from now, when the space shuttle is retired, Russia will be in the catbird's seat, able to dictate who goes up to the International Space Station, when, and at what price.

The space station partnership has stood the test of time and I certainly don't want to inject any negativism into it, but one can't ignore the fact that – according to NASA -- the Russians are taking advantage of the current situation with regard to plutonium-238. Russia has a contract to sell plutonium-238 to the United States for NASA to use in some of its planetary exploration missions, but once Congress rejected a request from the Department of Energy to restart domestic plutonium-238 production, the Russians decided to raise the price, even though a contract already was in place.

Right now I believe the price for a seat on Soyuz is $51 million. What will it be once the shuttle is retired?

And the issue is more than price. The United States and Russia have been equals in the human space flight arena for decades. Will Russia view the United States differently in international fora when it is just another paying customer? Some people argue that the situation is no different than those years after the *Columbia* tragedy when we relied on

Russia to take our astronauts to the station, but I don't agree. Now we are choosing to walk away from our ability to launch people into space for at least 5-7 years. It's not an emergency. It's a deliberate choice.

There is a lot of debate on the meaning of the human space flight program to America's self-image and its position in the world. Although there are some who are still trying to get the shuttle program extended, their chances of success appear slim, so we will learn over the next few years if our "seat at the table" gets any lower once our human space capabilities are diminished. And will China's seat be higher?

No space program discussion is complete without discussing China. However, I am well over my 10 minutes, so I will say only that China is an important player in the space arena, but our relationship with China is very complex – as illustrated by the current controversy over what China was doing with those Google email accounts – meaning that there are no easy answers there. I'm sure this will be a subject of discussion during the Q&A period.

Thank you.