



## Promoting the Long-Term Sustainability and Security of the Space Environment

### Remarks

**Frank A. Rose**

**Deputy Assistant Secretary, Bureau of Arms Control, Verification and Compliance**

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Good morning.

I am very pleased to be here today in Tokyo to discuss space security in one of the most dynamic and important regions of the world. I would like to thank my fellow co-hosts, the Government of Japan and the Government of Indonesia, for all of their hard work in organizing this important workshop.

This morning, I would like to extend a warm welcome to everyone in this room for choosing to participate in the second ASEAN Regional Forum, or ARF, Workshop on Space Security. As many people here may know, the first ARF Workshop on Space Security was held in Hoi An, Vietnam in December 2012 and was ably co-hosted by Vietnam and Australia. We hope to build upon the first Workshop's success over the next two days. This second Workshop is especially timely given that we are meeting during World Space Week, which celebrates "the contributions of space science and technology to the betterment of the human condition."

I view this Workshop as an opportunity to discuss how ARF participants can benefit from space and how we can work together to ensure the long-term sustainability and security of the space environment in the face of pressing dangers such as the growth of space debris. As more and more Asian-Pacific nations develop space capabilities, cooperation among Asian-Pacific governments will be essential to preserving the space environment for us all.

### **The Urgent Challenge of Orbital Debris**

When the space age began, the opportunities to use outer space were available to only a handful of governments; today, approximately 60 nations and government consortia, as well as numerous commercial and academic satellite entities operate satellites. This has led to tremendous advancements and benefits for people here on Earth. Space systems and their associated services and applications are vital to peoples' daily lives across the Asia-Pacific region and the world, enhancing economic growth and development as well as security. However, there has been a downside to these systems: decades of space activity have littered Earth's orbit with debris, and as the world's space-faring nations continue to increase activities in space, the chance for a collision increases correspondingly. Today, the orbits close to Earth, where most of our operations are conducted, are increasingly littered with debris. The United States is currently tracking tens of thousands of pieces of space debris 10 centimeters or larger in various Earth orbits. Experts warn that the current quantity and density of man-made space debris significantly increases the odds of future damaging collisions. Because of the high-impact speed in space, even a sub-millimeter piece of debris could cause a problem for human or robotic missions. This serious problem is continuing to grow as more debris is generated by routine operations as well as by accidents, mishaps, and intentional events.

### **The Contribution of Transparency and Confidence-building Measures**

If the urgent problem of space debris is not addressed, access to some space services could eventually be seriously degraded or even lost. To preserve the right to use and explore space for established and emerging spacefaring countries alike, international cooperation is necessary. The key question is: "What cooperative measures would be most effective in addressing the urgent challenge of space debris?"

Over the next two days, Workshop participants will hear several ideas on possible solutions for addressing the debris challenge. I expect that many speakers will mention the role that voluntary and pragmatic transparency and confidence-building measures, or TCBMs, can play in addressing these challenges. Other speakers might suggest that we pursue legally-binding space arms control agreements.

However, I propose that, rather than focus on our differences during this Workshop, we instead focus on those areas that we have in common, in order to identify areas of pragmatic near-term cooperation. The key area in this regard is TCBMs that encourage responsible actions in, and the peaceful use of, outer space. Such pragmatic measures already exist, have been agreed to by consensus in the past, can be implemented quickly, and address the urgent problem of debris and other problems. The successful history of TCBMs in sensitive areas, such as strategic and conventional forces, suggests that TCBMs can make an important contribution to space security as well.

### **Concrete TCBMs in Action**

A recent example of the positive and concrete impact that TCBMs can have was on August 15<sup>th</sup>, when the U.S. Joint Space Operations Center provided a collision avoidance notification to Vietnam that VNREDSat-1 faced a heightened probability of collision with another space object. Vietnam subsequently changed VNREDSat-1's orbit to avoid the possible collision. This close and timely cooperation between Vietnam and the United States prevented a possible collision, thus

avoiding the creation of additional space debris that would threaten the sustainability of the space environment, not to mention avoiding the loss of an expensive satellite. Additionally, the United States has provided numerous notifications this year to countries represented at today's workshop.

A promising area for multilateral cooperation on space TCBMs will be the implementation of the recommendations of the UN Group of Governmental Experts, or GGE, study of TCBMs. The GGE report, which was later endorsed by consensus by the UN General Assembly, highlighted the importance of voluntary, non-legally binding TCBMs to strengthen stability in space. For example, the GGE study noted that "Outreach measures can improve understanding between States as well as regional, multilateral, non-governmental and private sector cooperation. This can help to promote the security of all States by fostering mutual trust through the implementation of political and diplomatic outreach measures relating to outer space activities. Specific measures may include States' participation in thematic workshops and conferences on space security issues."

The GGE report also endorsed efforts to pursue political commitments, for example "a multilateral code of conduct, to encourage responsible actions in, and the peaceful use of, outer space." Consistent with the GGE, the United States has been actively involved in working with the European Union and other governments to develop the International Code of Conduct for Outer Space Activities. The draft Code contains many provisions that would contribute to ensuring the sustainability of the space environment, including the commitments to "refrain from any action which brings about, directly or indirectly, damage, or destruction, of space objects" and "to minimise, to the greatest extent practicable, the creation of space debris." We were pleased that many of our fellow ARF participants sent experts to participate in the recent Open-Ended Consultations on the Code.

The UN Committee on the Peaceful Uses of Outer Space, or UNCOPUOS, is also continuing to do important work to move forward in the development of new international long-term sustainability guidelines. Many of the best practice guidelines addressed by the Working Group on Long-Term Sustainability of Space Activities are integral to our efforts to pursue TCBMs that enhance sustainability in space. We hope to see more participation from Asia-Pacific nations in UNCOPUOS in the future in order to help shape the development of best practice guidelines.

### **Closing Thoughts**

All nations, especially those in the Asia-Pacific region due to the region's dynamic growth in space capabilities, have become more reliant on space than ever before. Ensuring the long-term sustainability and security of the space environment is in the vital interest of all ARF participants and the entire international community. However, the long-term sustainability of the space environment is at serious risk from the growing problem of space debris and irresponsible actions. Therefore, we must work together to address this urgent problem in a spirit of pragmatic cooperation. I believe that TCBMs, such as this very Workshop, are the correct place to start.

Thank you very much, and I look forward to our discussions over the next two days.