



Promoting Space Security and Sustainability

Remarks

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Introduction

Thank you for that kind introduction, and thanks to the International Institute of Strategic Studies for having me back here today to discuss an issue of vital interest: ensuring the long-term sustainability, stability, safety, and security of the space environment.

For decades, we have been inspired by humanity's space endeavors and reaped the benefits of the use and exploration of outer space. While some take these benefits for granted, let me be clear: space assets are essential to U.S. national security as well as the security of our allies and coalition partners. This shared interest is recognized here in the United Kingdom, where HM Government's National Space Security Policy establishes the promotion of a safe and more secure space environment as a key objective.

Outer space is a domain that no nation owns but on which all rely. Yet today, space is becoming increasingly congested from orbital debris, including man-made threats—such as the testing of debris-generating anti-satellite, or ASAT, systems. Left unchecked, such debris could result in access to some space services being seriously degraded or even lost – creating a direct threat to international security.

The world's growing dependence on the globe-spanning and interconnected nature of space capabilities mean that it is more important than ever for all citizens to understand that irresponsible acts in space by one entity can have damaging consequences for all. Therefore, all nations must work together to adopt a responsible approach to activities in outer space in order to preserve this domain for future generations.

Today, I would like to cover two aspects in regard to ensuring the security and sustainability of the space environment: first, the risks and dangers to space systems from debris generating ASAT tests; second, the role of international diplomatic initiatives in protecting the long-term sustainability and security of the space environment.

Threats to Outer Space

Let me start with the risks and dangers. On July 23 of this year, the Chinese Government conducted a non-destructive test of a missile designed to destroy satellites in low Earth orbit. Despite China's claims that this was a missile defense test, let me assure you the United States has high confidence in its assessment, that the event was indeed an ASAT test.

And China is not the only one pursuing these capabilities. As Director of National Intelligence James Clapper noted in his January 2014 congressional testimony, "Russian leaders openly maintain that the Russian armed forces have antisatellite weapons and conduct antisatellite research."

The United States believes that these threats, which include the continued development and testing of destructive anti-satellite systems, are both destabilizing and threaten the long-term security and sustainability of the outer space environment. Moreover, these threats affect all who benefit from outer space including the scientific, commercial, and civil space communities. Indeed, thousands of pieces of debris about 10 cm and larger from the 2007 Chinese ASAT test continue to endanger space systems from all nations, including China.

On the security side, ASAT weapons directly threaten satellites and the strategic and tactical information and services those satellites provide, and their use could be escalatory in a crisis or conflict. They also pose a direct threat to key assets used in arms control verification monitoring, command and control and communication, and warning and attack assessment. A debris generating test or attack may only be minutes in duration, but the consequences can last decades and indiscriminately threaten the space-based assets of all space-faring nations, and the information from space upon which all nations depend.

On the civil space side, between 2007 and 2014, NASA has had to perform eight debris avoidance maneuvers of its robotic spacecraft due to possible collisions with debris from the 2007 Chinese ASAT test. Two of these spacecraft maneuvers were conducted in 2014. Just as these systems threaten our national security space systems, they can threaten the civil satellites that are so essential to our everyday lives.

Multilateral Efforts toward a Stable and Sustainable Space Environment

Given these threats and the current era where many States and nongovernmental organizations are harnessing the benefits of outer space, we have no choice but to work with our allies and partners around the world to ensure the long-term sustainability of the space environment. We also must speak clearly and publicly

about what behavior the international community should find both acceptable and unacceptable. Over the past few years, the United States has worked to support a number of multilateral initiatives that seek to establish consensus guidelines for space activities that are both in the national security interests of the United States, and will further the long-term stability and sustainability of the space environment.

Just last year, I served as the United States expert on a United Nations Group of Governmental Experts (GGE) study of outer space transparency and confidence-building measures (TCBMs). The consensus GGE report which was published in July of last year endorsed voluntary, non-legally binding TCBMs to strengthen sustainability and security in space. The GGE benefited immensely from the contributions of Professor Richard Crowther of the U.K. Space Agency, who worked with several other experts to define a rigorous set of criteria for considering space TCBMs. This work contributed to the GGE's recommendation that States implement measures to promote coordination to enhance safety and predictability in the uses of outer space. The 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."

This International Code of Conduct for Outer Space Activities is another important multilateral initiative. Among the Code's commitments for signatories is to refrain from any action which brings about, directly or indirectly, damage, or destruction, of space objects and to minimize, to the greatest extent possible, the creation of space debris, in particular, the creation of long-lived space debris. The Code could also help solidify safe operational practices, reduce the chance of collisions or other harmful interference with nations' activities, contribute to our awareness of the space environment through notifications, and strengthen stability in space by helping establish norms for responsible behavior in space.

Lastly, the UN Committee on the Peaceful Uses of Outer Space (COPUOS) is also doing important work to move forward in the development of new international long-term sustainability guidelines. U.S. and U.K. experts from the private sector as well the federal government have played a leading role in the COPUOS Working Group on the Long-term Sustainability of Outer Space Activities. These efforts contribute to the development of multilateral and bilateral space TCBMs. Exchanges of information between space operations centers also can serve as useful confidence building measures.

Multilateral diplomatic initiatives contribute greatly to defining acceptable and unacceptable behaviors in space and therefore are key components of the United States deterrence strategy. In addition, if we are serious about maintaining the space environment for future generations, we must support such measures that promote positive activities in space and further the creation of norms which dissuade countries from taking destabilizing actions such as the testing of debris-generating ASAT systems. By working with the international community, we can, and must, advance the long-term sustainability and security of the outer space environment for all nations and future generations

With that, I would like to thank you for your time and stop here in order to leave time for questions.