



Promoting Cooperative Solutions for Space Sustainability

Developing Norms for Outer Space Activity

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Governing the Space Domain

- Development of international principles, adoption of treaties and agreements within UNCOPUOS
- Four main, widely adopted space treaties:
 - The Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (the "Outer Space Treaty"), 1967;
 - The Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space (the "Rescue Agreement"), 1968;
 - The Convention on International Liability for Damage Caused by Space Objects (the "Liability Convention"), 1972;
 - The Convention on Registration of Objects Launched into Outer Space (the "Registration Convention"), 1975 - 1976

Governing the Space Domain

- Less momentum in development of treaties
 - The Agreement Governing the Activities of States on the Moon and Other Celestial Bodies (the "Moon Agreement"), 1979-1984
 - 2008 Proposed Treaty on the Prevention of Placement of Weapons in Outer Space, the Threat or Use of Force Against Outer Space Objects (**PPWT**)
 - Deadlocked UN Conference on Disarmament (**CD**)
- Other mechanisms, including norms of behavior, gaining more relevance to address challenges of changing domain

Changing Nature of the Space Domain

- Increased availability of space technology : changed environment
- Space actors now include 70+ nations, private sector companies, NGOs, university teams
- Shift in how we approach space affects possibilities for space and security
- Challenges resulting from increased activity pose risks to activities of all actors, raise new questions.
- Goal: ***stable, predictable space environment***
 - Will allow us to enjoy continued benefits from use of and access to space
 - Increasingly important role of commercial entities, dealing with diversity of actors

- “Rules of the road” – shared understanding of responsible behavior
- Cornerstone of international space activities since 1950s
 - 1962 - *Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space*
 - 1996 - *Declaration on International Cooperation in the Exploration and Use of Outer Space for the Benefit and in the Interest of All States, Taking into Particular Account the Needs of Developing Countries*
- Include **TCBMs** – help build trust, reduce misinterpretation and miscalculation
- Can augment principles contained in treaties while addressing dual-use challenge

The challenge of dual-use

- Space technologies can be *dual-use*
 - *Intent, not hardware*, going to be key
 - How do you *demonstrate responsible*, non-threatening use of space?
 - Even more relevant for next-generation issues like active debris removal or on-orbit servicing
- International *cooperation can clarify* intent, also build incentives
 - *Norms of behavior* can help



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Case Study: Debris Mitigation Guidelines

- Major space sustainability challenge
- Process: Inter-Agency Space Debris Coordination Committee (IADC) combined best-practices of members; submitted to COPUOS STSC; revised and endorsed in 2007; then endorsed by UNGA
- Voluntary technical guidance
- Widespread application: endorsed into domestic licensing requirements, serving as benchmarks for activities of multiple agencies
- Example of how non-binding measures can be supported by national legislation/requirements

- Responsible behavior should be defined through international, cooperative mechanisms
- Involves both legally binding and non-legally binding efforts
- Often coupled with national legislation to enable enforcement
- Benefits of increased political flexibility of TCBMs and other norms – may lead to wider adoption, can be endorsed by non-governmental actors, can serve as guidance to new actors
- Norms as promising, near-term steps to address emerging challenges: Active-debris removal, on-orbit servicing, natural resource extraction, etc.

Handbook for New Space Actors

- SWF initiative – <http://swfound.org/handbook/>
- Publication and website (next phase)
- Audience for the handbook:
 - States developing national space policies and regulations;
 - start-up companies, universities, and other non-governmental entities beginning their first foray into space activities.
- Goal: resource providing broad overview of the fundamental principles, laws, norms, and best practices for peaceful, safe, and responsible activities in space.
- Resource to maximize the positive benefits and minimize the negative consequences of the growth of new actors.



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Contact Information

Comments? Questions?

Thank you