



*Promoting Cooperative Solutions for Space Sustainability*

Submitted on behalf of SWF by:  
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Dear Mr. Chairman and Distinguished Delegates,

Secure World Foundation (SWF) believes that the development of TCBMs for outer space activities is a necessary step toward ensuring the long-term sustainability of the space environment. With reference to the “Note on the first session of the Group of Governmental Experts (GGE) on Transparency and Confidence-Building Measures (TCBMs) in Outer Space Activities” (A/CONF.220/1), which encourages experts from civil society to provide written recommendations, SWF submits these inputs for consideration by the GGE delegates. These inputs are based on activities related to maintaining international peace and security in outer space that SWF has hosted or participated in around the world. The Russian proposal on international outer space TCBMs, submitted to the Secretary-General in response to United Nations General Assembly (UNGA) Resolutions 61/75 and 63/68, provided a categorization of possible TCBMs, which SWF uses as a framework below.

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**Measures aimed at enhancing the transparency of outer space programs**

*What:* Policies and budgets/expenditures related to outer space activities should be more widely published.

*Who:* States engaging in, or pursuing, space activities should participate in this TCBM, particularly those countries with launch capabilities, major investments in space assets, and ownership of a substantial portion of active or inactive objects on orbit.

*When:* States should publish frequently enough to reflect their current policies and budgets.

*Where:* Current policies and budgets should be made publicly accessible via UN reporting mechanisms, the Internet, or media outlets.

*Why:* The dual use nature of most space activities increases the risk of misunderstanding and misperception, which can undermine strategic stability. Civil and military space activities often overlap in research and development stages or through multipurpose utilization of space assets. Communicating the general purpose of space programs through published documents clarifies intent without detracting from national security and defense.

*How:* Disclosing this information in a public forum, whether publishing it on government websites or through a UN reporting mechanism, builds a climate of trust and confidence in the international community, as indicated by UNGA Resolution 56/14 on “Objective information on military matters, including transparency of military expenditures.” Many nations have already published space policies/budgets on government websites or through mainstream media outlets; all engaged in space activities should replicate this activity. Regularly updating existing published policies and a wider application of this exercise by other States will strengthen trust and confidence. For publishing space budgets, the UN system for standardized reporting of military expenditures, introduced in 1980 by UNGA Resolution 35/142 B, could serve as a model mechanism.

**Measures aimed at expanding the information available on outer space objects in orbit**

*What:* Increased sharing of actionable data and information on activities in orbit, often referred to as space situational awareness (SSA), is a key TCBM that would prevent mishaps and misperceptions.

*Who:* No single entity can provide the SSA necessary for maintaining safe operations and strategic stability in the space domain. Additionally, there are currently only a few entities with dedicated SSA capabilities and fewer still with established programs for sharing the data and information gathered from those capabilities. The opportunity and necessity exists, then, for all space actors to contribute to this TCBM.

*When:* Sharing accurate data and information on space activities contributes to peace and security at all times, but is particularly beneficial and indicative of good will during crisis scenarios (e.g. malfunctions of Intelsat’s Galaxy 15 satellite and the Phobos-Grunt spacecraft).

*Where:* For this TCBM to be most effective and credible, capabilities and sharing hubs should be distributed around the world, not just geographically, but also among States and actors.

*Why:* TCBMs are more attainable when they benefit and serve the interest of all involved. Improving the availability, accuracy, and exchange of SSA for and by all space actors immediately enhances the safety and security of all active in the space environment. First, it prevents accidents on orbit by monitoring for potential collisions and enabling spacecraft to maneuver out of danger. Second, if accidents occur, it reduces the risk of these being misconstrued as hostile behavior by enabling accurate attribution of incidents in space. Third, sharing SSA data and information communicates good intent to others and facilitates verification that orbital activities are not hostile or suspect. Fourth, the contribution of many actors to a complete SSA picture reinforces its overall credibility, further strengthening trust and confidence by reducing dependence and the burden of responsibility on any one entity.

*How:* States should expand SSA sharing arrangements in an inclusive manner, by either improving the quality of sharing in existing programs or building new partnerships. Opportunities exist for substantive and timely collaboration among those

States and actors already operating SSA capabilities or sharing SSA data, such as United States Strategic Command, the International Scientific Optical Network, and the private sector-led Space Data Association. Those developing future SSA programs, such as the European SSA Programme, should work toward greater interoperability with existing systems. A variety of international thematic workshops, meetings, and dialogues can lay the foundation for greater exchange and collaboration, as well as explore the multifarious ways that a diverse range of States and actors can contribute to improved SSA.

**Measures related to the rules of conduct for outer space activities**

*What:* More international dialogue is needed to identify norms of responsible behavior in space and implement “rules of the road” for both established and emerging spacefaring nations. Merely maintaining an open, international dialogue on rules of conduct can serve as a TCBM, as can the products of those discussions.

*Who:* Norm-building and governance development is most effective when it involves all relevant stakeholders. This ensures that norms or rules will best reflect the nature of the environment they are meant to govern because they will be informed by the expertise of those most familiar with it. It also strengthens support for and adherence to the rules or norms, since those expected to follow them have a role in shaping them. Development of norms and “rules of the road” for space should involve not only established space powers, but also emerging spacefaring nations, as well as private sector, civil society, and intergovernmental entities engaged in space activities – namely, all major space stakeholders.

*When:* Prior experience in similar environments suggests that this can be a gradual process, with complementary initiatives serving as building blocks in a robust regime. Some may desire swifter work toward a legally binding solution, but positive, normative progress should not be bypassed in pursuit of an ideal outcome.

*Where:* Debate exists over which international forum is best-suited for developing norms and rules for space. SWF has seen that a variety of fora can be useful in this process, so long as the conversations continue to be inclusive and regarded as legitimate by the wider international community.

*Why:* The space environment has dramatically changed since the foundational space treaties were negotiated decades ago. New norms and “rules of the road” are needed to inform those developments not foreseen or adequately elaborated on in those treaties. This process directly reduces the chance for misunderstanding and misperception by clearly outlining what is responsible and irresponsible behavior in space, which establishes common understanding among all States and space actors. Further, norm-building and rule development enables the sharing of expertise and best practices with new space actors and emerging spacefaring nations in a systematic way. Mere participation in international dialogue on space governance can signal good intent.

*How:* Progress has already been made with the development of international instruments like the Inter-Agency Space Debris Coordination Committee (IADC)’s Debris Mitigation Guidelines and subsequent Space Debris Mitigation Guidelines of the UN Committee on the Peaceful Uses of Outer Space (UNCOPUOS), but more should be done to ensure broader implementation of these guidelines. Capacity-building in this area, especially with emerging space States, will not only promote broader implementation, but also peace and security. There are currently a few international initiatives in addition to this GGE (e.g. proposed International Code of Conduct for Outer Space Activities and best practice guidelines from the UNCOPUOS Long-Term Sustainability of Space Activities Working Group) that would benefit from greater harmonization. All of these initiatives should work toward complementarity so that the expected products reinforce, not compete or conflict with, each other. Real and regular communication among those participating in these initiatives and outreach to provide progress updates will contribute to this ideal outcome.

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Technological innovation and increasing pressure from crowding and orbital debris augur the advent in coming years of on-orbit satellite servicing and active debris removal. These types of rendezvous and proximity operations (RPO) have the potential to contribute positively to space sustainability and security, but could also increase mistrust. More must be done to outline how RPO activities can be executed in a responsible, nonthreatening manner. Openly discussing these activities, as has been done in recent conferences in Washington, DC and Brussels, is one step toward dispelling doubts and is an immediate opportunity for implementing constructive TCBMs.

The availability of information by itself does not constitute transparency or build confidence, and therefore, does not necessarily contribute to security and stability. Governments must intentionally commit to transparency and building confidence, which is evidenced in actions such as disclosing policies and space expenditures, sharing of SSA data and information, engaging in international dialogues on “rules of the road,” and candidly discussing new technological developments. In fact, merely engaging in an international dialogue on TCBMs can indicate that commitment. As such, SWF strongly supports the work of the UN GGE on TCBMs for outer space activities and its role in achieving long-term space sustainability and looks forward to the success of that initiative.

Respectfully,

Secure World Foundation

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