

► Flags of member nations flying at United Nations Headquarters in New York.



UN Photo/José Aratzjo Pinto

Prospects for progress on space security diplomacy

The diplomacy of space security is a difficult realm in which to assess progress. There are no set benchmarks and little movement on which to base a call as to whether matters are progressing or regressing and to a degree it resembles a ‘glass half full or half empty’ type of determination. Paul Meyer, a Professor of International Studies and Fellow in International Security, outlines the situation and suggests some possible answers.

At the same time there is no question that the use of space is growing exponentially with some 1400 satellites currently active and over 60 states or consortium owning space assets. Every country on the globe is benefiting from space-enabled services and the collective contribution of space to the world’s security and well-being is enormous if hard to quantify. All of this activity is premised on continuation of the relatively

benign operating environment of space, free up to this point from man-made attacks or threats against space assets.

The legal basis for this situation lies in the 1967 Outer Space Treaty with its far-reaching provisions that provide space with a special ‘global commons’ status, forbid stationing of WMD in orbit or militarisation of celestial bodies, and specify that the use of space should be for ‘peaceful purposes’ and in the interests of all.



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This neglect of the Outer Space Treaty by the very states that championed its creation speaks to a disturbing trend in contemporary space security affairs

The Outer Space Treaty was a major accomplishment in international cooperation and merits celebration at its 50th anniversary next year at a level commensurate with its significance for the outer space regime we all benefit from today.

It would be appropriate for the over 100 states party to the treaty to convene the first ever meeting to mark this landmark agreement and its golden anniversary. Unfortunately, the three depositary governments of this treaty (Russia, US and UK) have shown scant interest in undertaking any commemorative action on behalf of the treaty let alone an innovative step such as convening such a meeting.

This neglect of the Outer Space Treaty by the very states that championed its creation speaks to a disturbing trend in contemporary space security affairs, one that ignores the constraints on the actions of actors in space (even those voluntarily entered into by these same actors) in favour of emphasising unrestricted freedom of action and the development of national security-related capabilities to support unilateral moves.

Despite the major role the Outer Space Treaty has played in delineating the scope of permissible action in outer space, the international community has long recognised that it is not sufficient to preserve security in outer space.

Via the UN General Assembly resolution on 'The Prevention of an Arms Race in Outer Space'

(PAROS) that has been a regular feature of the Assembly's First Committee (Disarmament and International Security) since the early 1980s important further policy direction has been given.

The widely-supported PAROS resolution (only two abstentions and no opposing votes) has long affirmed that 'the legal regime applicable to outer space by itself does not guarantee the prevention of an arms race in outer space...[and that consequently] there is a need to consolidate and reinforce that regime and enhance its effectiveness'.

The resolution goes on to stress the need for 'further measures' and for states 'to refrain from actions contrary' to the peaceful-use-of-outer-space objective. While this policy direction is clear and important, regrettably from the perspective of practical diplomacy, the PAROS resolution has called on the Conference on Disarmament to establish a working group on this item to carry forward this work. It is as if its sponsors have failed to notice that the Conference on Disarmament has been in a state of gridlock for 20 years unable to establish a subsidiary body on space or on any other theme.

This disconnect between goal and process regarding space security has persisted for many years. There appears to be a strong consensus on the part of states in favour of reinforcing and consolidating the existing regime but little in the way of tangible achievements in that regard. The major initiatives to supplement that regime proposed in the last decade have failed to come to fruition and have tended to highlight differences amongst states rather than overcome them.

In this category I would put the Sino-Russian proposed treaty for prevention of placement of weapons in outer space (PPWT). The treaty officially tabled in the Conference on

► Signing ceremony for the Outer Space Treaty in 1967.

Agreement on the more demanding proposed guidelines will prove more elusive





Disarmament in 2008 with a revision tabled in 2014 has drawn criticism from some quarters for its lack of definitions, verification provisions and for its restricted scope. Consideration of the draft treaty has also suffered from the lack of a relevant subsidiary body within the Conference on Disarmament to discuss it and the refusal of its sponsors to bring the treaty before any other multilateral forum.

Also in this category of diplomatic 'failure to launch' I would place the EU-initiated Code of Conduct for Outer Space Activities, a voluntary set of measures designed to promote the safety, security and sustainability of space activity.

Some readers may be aware that this proposed Code was brought before a multilateral meeting in July 2015 in New York with the hope of finalising the text. This was not to be, however, as a significant number of states argued that such a Code needed to be developed pursuant to a mandate authorised by the UN General Assembly. At present this Code seems in a kind of diplomatic limbo with no evident champion willing to seek authorisation to commence a new multilateral negotiation based on its text.

Finally, I believe that the Russian-initiated resolution on 'No First Placement of Space

Weapons' adopted at the UN General Assembly for the first time in 2014 and again in 2015, represents another problematic development for space security.

This resolution was viewed by several states as potentially establishing a justification for the development of space weapons in order to retaliate if a state actually was responsible for being the first to introduce weapons in space.

These concerns help to explain why a substantial subset of member states (some 50) either abstained or opposed the resolution. This divisive outcome regrettably detracted from the general consensus that has characterised UN General Assembly declaratory policy on space up until this point.

A more positive development in the sphere of space security was the consensus report issued in 2013 by the UN Group of Governmental Experts (GGE) on 'Transparency and Confidence Building Measures' (TCBMs) in outer space.

This GGE report set out a substantial list of TCBMs that could contribute to space security. The report also recommended a joint session of the First and Fourth Committees of the General Assembly to combine the two dimensions (or solitudes) of the UN's traditional involvement in

▲ The International Space Station is a symbol of cooperation. Here, three vehicles are simultaneously attached - Orbital ATK's Cygnus cargo craft (left), Russia's Soyuz MS-01 vehicle (middle) and the Russian Progress 64 cargo craft (right.)

The international community needs some fresh approaches in order to make progress on the space security issue

space policy and activity. This joint session was duly held last year and a further joint meeting is envisaged for next year. The jury is still out, however, on whether the other recommendations of the GGE will be embraced by states and actually implemented.

In part, because of the protracted deadlock in the Conference on Disarmament, the centre of gravity for further development of space policy has shifted to Vienna and the UN's Committee on the Peaceful Use of Outer Space (COPUOS) at the expense of explicit coverage of the security aspects of outer space use. This summer at its annual session, COPUOS was able to agree on an initial set of guidelines emerging from a multi-year working group on the long-term sustainability of outer space.

Some will view these guidelines as the realisation of the GGE's recommendations. But here again the proof of the pudding will be in the eating, i.e., how state practice actually changes via these guidelines. It is also fair to say that the adopted guidelines represent the low-hanging fruit of the working group's production and agreement on the more demanding proposed guidelines will prove more elusive.

Objectively, I would have to assess that the prospects for advancing space security at the current time are not bright. Differences among leading space powers are being exacerbated while threat perceptions and rhetoric associated with these are darkening.

Suggestions that other space powers view one's own space assets as vulnerable targets do not

contribute to fostering a cooperative security climate. The diplomatic initiatives that have been put forward have either stalled or generated serious opposition. They will require renewed attention and creative thinking if advances are to be made.

The international community needs at this juncture some fresh approaches in order to make progress on the space security issue. It is especially important to reaffirm, and reflect in action, the core commitments of the Outer Space Treaty. In particular, the obligation to abide by the peaceful purposes orientation of the treaty and to ensure that the use of space is carried out in the general interest and provides benefits for all and not just to those engaged in the activities. International cooperation needs to be re-instated as the pre-eminent aim for space action. It is also increasingly obvious that preserving space for humanity is too important an endeavour to be left only in the hands of governments. The wider stakeholder community (the private sector and civil society) needs to get more engaged on behalf of responsible policies that provide for space security for all the years to come. ■

About the author

Paul Meyer is Adjunct Professor of International Studies and Fellow in International Security at Simon Fraser University and Senior Fellow at The Simons Foundation, both in Vancouver, Canada. Previously he had a 35 career with Canada's Foreign Service, including serving as Ambassador to the UN and Conference on Disarmament in Geneva (2003-07). He teaches a course on multilateral diplomacy and is a member of the Governance Group for 'Space Security Index' an annual publication (www.spacesecurityindex.org).

▼ Meeting of the Committee on the Peaceful Uses of Outer Space.





◀ MASTER II Robotic telescope on the island of Tenerife, Canary Islands, at the Teide Observatory at the Instituto de Astrofísica de Canarias.

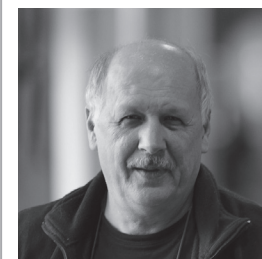
Global robotic network for monitoring near-Earth and outer space

With a commanding name such as MASTER, it is expected that the Russian-made global robotic system for monitoring near-Earth and outer space has big things in store - and indeed it does. MASTER has already proved its worth by surpassing all of the world's optical telescopes, including the best American observational telescope PanSTARRS, when it reported on the first optical follow-up observations of the historic gravitational wave event GW150914 that occurred in 2015. Aside from tracking potentially dangerous asteroids and helping to shed light on mysterious bursts known as kilonova, the MASTER network also has plans to help ascertain the true expansion rate of the Universe.

At the beginning of the 21st century it became obvious that using small-diameter (up to one metre) robotic telescopes in astronomy allowed for breakthroughs in observing non-stationary and short-lived events in the Universe. With the help of robotic observatories that were built in developed countries it was possible to discover the optical emissions of some of the brightest emissions in the Universe - gamma-ray bursts (GRBs).

By analysing the light from a number of exploding stars (Type Ia supernovae), robotic observatories have also helped in the discovery that the Universe is expanding at an accelerated rate due to the existence of a mysterious force known as dark energy. The astronomers who studied this phenomena have since won the Nobel Prize for Physics in 2011. Not only that, but robotic telescopes now discover hundreds and thousands of new small bodies in and outside of the Solar

The MASTER network has discovered about one thousand new optical transients of all types - from astrophysical explosions to potentially dangerous asteroids and comets



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