



US Space Security Policy

Still in Orbit or Commencing Re-entry?

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Introduction

There has been little codification of international security rules concerning outer space since the Outer Space Treaty of 1967, even though the use of space for both military and civilian purposes has grown exponentially since the treaty was signed. An estimated 860 satellites are now operational, providing a vast spectrum of services from telecommunications to remote sensing that the world increasingly relies upon. Moreover, recent events such as the January 2007 Chinese anti-satellite test and the February 2009 collision between a U.S. and Russian satellite have drawn attention to the vulnerability of space assets to deliberate or accidental damage. These events have also underscored the fragility of the international consensus governing outer space security.

It is in this context that the Obama Administration undertook a comprehensive review of American outer space policy shortly after taking office. The result of this review, the National Space Policy (NSP), which was released in late June, suggests a new openness to international cooperation on space security. However, the review did not detail specific steps the Administration is prepared to take to achieve such cooperation. As such, friends

At a glance...

- *Canada and other countries rely on a vast network of satellites for communication, navigating and remote sensing functions. If these satellites became targets of attack, the impact on international commerce, security and development would be enormous.*
- *Although outer space does not yet contain weapons, international legal restrictions on the weaponization of outer space remain weak.*
- *In June, the Obama Administration issued a National Space Policy that signaled new U.S. openness to international cooperation on space security, but the document is short on specifics.*
- *Canada should vigorously promote its own proposals for stronger arms control arrangements in outer space. Doing so might encourage the U.S. and European Union to come forward with more substantial and detailed proposals of their own.*

and allies of the United States will need to engage directly with their American partners

to determine actions that will provide a basis for broader international cooperation on space security. Canada, with its longstanding involvement in outer space security diplomacy, should be an active participant in this effort.

The Existing Regime for Outer Space Security

The Outer Space Treaty of 1967 enshrines this realm as a common heritage of humankind and an area for peaceful exploitation. This widely adhered to treaty with 105 state parties, provides the international legal framework which has facilitated the extensive development of outer space for both civilian and military purposes. Today, satellites owned by some 60 states or private entities are in active service orbiting the Earth, performing critical communication, navigation and remote sensing functions. If these space assets were to become targets of attack, the impact on international commerce, development and security would be enormous.

Fortunately, outer space has yet to be weaponized and space activities continue to be conducted in the absence of a direct threat of attack. However, this relatively benign situation is more a product of state practice than legal obligation. The Outer Space Treaty sets out key prohibitions against certain military actions in outer space, including a ban on placing Weapons of Mass Destruction in orbit and the use of the moon or other celestial bodies for military purposes. However, military activity per se was not precluded by the treaty; indeed, such activity has been interpreted as consistent with the “peaceful purposes” provisions of the treaty. Recently, the two decade long hiatus on testing anti-satellite weapons was broken. In January 2007, China tested such a weapon against a satellite of its own, which was followed by the United States in February 2008 conducting a similar test against one of its de-orbiting satellites. Although both the Soviet Union and the United States had experimented with anti-satellite weapons in the 1980s, a reciprocal restraint regime on testing and deployment was respected by both sides. The debris caused by these new tests poses a new risk to spacecraft and, more importantly, raises the spectre

of space becoming an arena for military conflict, with states equipping themselves with weapons capable of destroying an adversary’s satellites. Further, the accidental collision in February 2009 of a Russian and American satellite also created a dangerous debris field and underscored the urgency of taking steps to reduce the risk of such events.

Outer Space Security and the Obama Administration

During its first year-and-a-half in office, the Obama Administration made few pronouncements on space security. The NSP was the product of a year-long review, and finally provided domestic and international observers with an indication of the new Administration’s position on outer space security issues. A perusal of this relatively thin (14 page) document does not yield great detail, but there are some tantalizing indications of a more substantial and activist policy to follow.

Most notably, the previous Administration’s dismissive attitude towards any form of international agreement on space security has been discarded. Under President George W. Bush, the U.S. position could be summarized as: “There is no need for arms control in outer space as there are no arms there to control.” In contrast, the new NSP suggests a broad openness to international cooperation, calling on U.S. departments and agencies to “identify potential areas for international cooperation...” Unfortunately, the document avoids references to any actual measures and appears to hedge its bet on future international collaboration. Further, it does not include any of the proposals that Barack Obama had espoused as a presidential candidate, such as a new international accord on the non-weaponization of space and a ban on weapons that “interfere with military and commercial satellites.” This last proposal even appeared briefly on the Obama White House website, but was removed well before the NSP’s release.

The clearest course of action emerging from this review is the declared support for the development of Transparency and Confidence-building Measures (TCBM), which the Policy says the United States will pursue in

both bilateral and multilateral variants. Thereafter, the NSP reverts to a more passive stance when it comes to outer space arms control more broadly. The one direct reference to the matter is: “The United States will consider proposals and concepts for arms control measures if they are equitable, effectively verifiable, and enhance the national security of the United States and its allies.” While this statement is clearly an improvement over the Bush Administration’s hostile posture towards outer space arms control, it is hardly a ringing call for new measures.

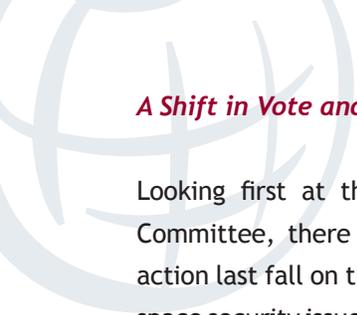
Indeed, several elements of the statement suggest that the U.S. may be adopting a reactive rather than proactive orientation. First, it states the U.S. will “consider” proposals and concepts for arms control measures. Does this mean that they will only react to ideas proposed by others, rather than generating their own proposals? Second, the document states that measures worthy of serious consideration must be “equitable, effectively verifiable, and enhance the national security of the United States and its allies.” That the measures should be fair is unobjectionable, and the insistence on an enhancement of U.S. and allied national security, while parochial, is understandable. But the requirement for “effective verification” of outer space arms control proposals is full of irony for those who are familiar with the evolution of U.S. positions at the 65-nation Conference on Disarmament (CD) in Geneva.

Traditionally, the top priority for the U.S. amongst the CD’s core issues was the negotiation of a treaty prohibiting the production of fissile material for nuclear weapons (the Fissile Material Cut-off Treaty or FMCT). The requirement for “effective verification” was present in the agreed Shannon Mandate of the FMCT, and for many years, this Mandate enjoyed the support of the United States. The Bush Administration reversed this position, however, claiming that the standard for effective verification was impossible to meet and should therefore be dropped. The Obama Administration, in turn, restored the traditional U.S. position in favour of effective verification being included in the FMCT. By including it now in the context of possible future outer space arms control proposals, the NSP is stipulating

that effective verification will be viewed by the U.S. as a condition for proposed new arms control measures. This is significant in the multilateral context as the principal outer space arms control proposal currently before the CD is the Russian-Chinese draft treaty on the Prevention of Placement of Weapons in Outer Space which deliberately does not include verification provisions.

Given that “effective verification” represents a high (although not an insurmountable) bar, its inclusion in the NSP seems to signal that the U.S. will be cool towards arms control measures in future and that the onus will be on proponents of outer space arms control to demonstrate that their proposals can be effectively verifiable. As the history of the U.S. position on the FMCT shows, what constitutes “effective verification” is subjective. In practice, the U.S. now appears to be focussing on politically-binding, not legally-binding, measures such as the TCBMs, which are not subject to the same verification standards. The NSP language implies that any new measures that the United States will embrace will be drawn from the broad pool of TCBMs. The elasticity of this term (each state can interpret what constitutes “confidence building” in its own way) should also appeal to policy makers attempting to foster international agreement on a particular measure.

The tentative embrace by the NSP of outer space TCBMs does not come as a surprise to those who have tracked U.S. policy pronouncements and voting behaviour in the key multilateral arms control forums. The annual gathering of UN member states in the First or Disarmament Committee of the General Assembly, for example, provides a unique platform for declaratory policy on the varied non-proliferation, arms control and disarmament issues that come before it. The actions and interventions of the U.S. representatives at last fall’s UNGA heralded the re-orientation of U.S. space security policy that is set out in the NSP. Examining the U.S. delegation’s statements at this event also serves to elucidate, to a degree, the thinking behind these positions.



A Shift in Vote and Posture

Looking first at the U.S. voting record in the First Committee, there were two significant shifts in U.S. action last fall on the principal resolutions that address space security issues. Most prominent is the “Prevention of an arms race in outer space” resolution which essentially encourages the international community to achieve the goal of the resolution’s title through, inter alia, the establishment of a working group on this topic at the Conference on Disarmament in Geneva. This resolution has enjoyed near universal support in recent years, with only the United States (and, to a degree, Israel) opposing it. Since 2002, the U.S. has consistently cast the lone “no” vote against the resolution, but in 2009 it moved to an abstention (alongside Israel).

The second major space-related First Committee resolution was the Russian-led “Transparency and confidence-building measures in outer space activities” which basically encouraged states to submit to the UN Secretary General “concrete proposals on international outer space transparency and confidence-building measures.” The resolution further requested that at the next United Nations General Assembly session, the Secretary General submit a compendium of all the proposals received pursuant to this resolution and its three preceding resolutions. In sharp contrast to the negative vote the U.S. cast on this resolution at the previous year’s General Assembly, in 2009 the U.S. did not participate in the vote, thus allowing the resolution to be adopted by consensus. In a revealing Explanation of Vote associated with this resolution, the U.S. representative, Garold Larson, Alternate Head of the U.S. Delegation to the First Committee, noted that the U.S. and Russia had agreed “to commence discussions on opportunities for new bilateral space transparency and confidence-building measures (TCBM).” He further stated that “the United States will continue to work with the European Union in efforts to advance a set of voluntary TCMBs that is acceptable to the greatest number of countries.” Through these changes, the U.S. was clearly signalling that it wanted to rejoin mainstream international thinking on space security policy and was open to initiatives for practical

cooperation in this realm. After years of adamant rejection of any suggestion that multilateral action on space security was warranted, this move to a more positive stance was significant.

What TCMBs Might be Most Internationally Acceptable?

Although the pursuit of bilateral and multilateral TCMBs “to encourage responsible actions in, and the peaceful use of, space” is espoused by the NSP, there are few, if any, indications in the document as to what these might consist of in practice. The vague references to the U.S. demonstrating leadership in space-related forums and its intention to “lead in the enhancement of security, stability and responsible behaviour in space” do not provide any further clarity.

One possible basis for a future TCMB lies in the NSP’s affirmation that the space programs of all nations should be able to conduct operations without interference. This principle could find expression in some form of non-interference measure, akin to the prohibition on interference with national technical means used for verification in other strategic arms control treaties. This possibility, however, remains undeveloped in the NSP, which neglects to elaborate on the content of any TCMB beyond their generic espousal. Indeed the biggest lacuna in the NSP is the apparent absence of any diplomatic agenda for space security.

The Secretary of Defense and the Director of National Intelligence both receive specific tasks in the NSP’s Sector Guidelines section, but the Secretary of State does not. The only specific mention of the Secretary of State occurs in the section dealing with international cooperation, where she is urged to carry out “diplomatic and public diplomacy efforts to strengthen understanding of, and support for, U.S. national space policies...” The State Department seems relegated to being the spokesperson for space policies developed by other parts of the U.S. government. By contrast, the Secretary of Defense is assigned four broad missions, one of which is to “maintain the capabilities to execute the space support, force enhancement, space control, and force application missions.” The NSP’s National

Security Space Guidelines are solely addressed to the Secretary of Defense and the Director of National Intelligence as if State Department, and the potential for outer space diplomacy it represents, has no role to play in advancing the national security space interests of the United States.

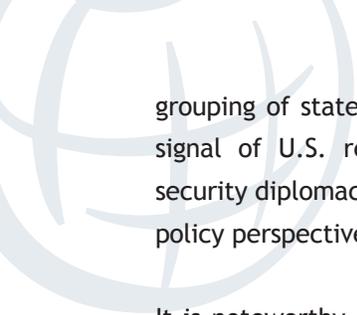
Subsequent to the NSP's release at the end of June, there have been some modest expressions of diplomatic intent on the part of State Department. In August, Rose Gottemoeller, Assistant Secretary of State for Verification, Compliance and Implementation, outlined at a U.S. STRATCOM seminar some areas for enhanced international cooperation. These consisted of: i) orbital debris mitigation, ii) shared situational awareness, iii) info-sharing for space object collision avoidance, and iv) development of TCBMs "...to promote safe and responsible operations in space." While the content of the TCBMs was again left undefined, Assistant Secretary Gottemoeller also referred to her bureau's work on verification relevant to outer space, which suggests a willingness to consider more robust measures for outer space security in future.

What Next for Space Security?

For those who were hoping for an innovative and more activist outer space security policy to emerge from the Obama Administration's policy review, the NSP will be something of a disappointment. Its minimalist treatment of TCBMs, and arms control in general, as well as its relative neglect of international cooperation as a vector for U.S. engagement on space security fall short of expectations. The NSP's cautious formulations welcoming the prospect of greater international cooperation, however, provide crucial policy cover for more focused space security diplomatic initiatives to follow. Preliminary indications are that the U.S. preference will be to first try out some selected TCBMs in bilateral security relations with Russia or China. Indeed, an initiative "to establish a mechanism to exchange data on launches of ballistic missiles and space launch vehicles obtained from their national early warning systems" has already figured in U.S.-

Russia discussions conducted via their bilateral Arms Control and International Security Working Group, chaired at the Undersecretary of State/Deputy Foreign Minister level. Such a step might lead as well to shared situational awareness in outer space, although the chief focus of these bilateral talks appears, for the moment, to be on issues linked to strategic arms reductions and ballistic missile defences. Likewise, China is another prime candidate for a bilateral strategic dialogue on outer space. Last fall, Deputy Secretary of State Jim Steinberg spoke to U.S. interest in establishing with China high-level military-to-military dialogues and cited space (along with cyber and strategic nuclear weapons) as areas where "(t)he risks of mistrust are especially acute..." Unfortunately, Beijing has not shared this interest in greater military transparency and has often suspended military dialogues with the United States in retaliation for American actions on other matters sensitive to China (e.g. arms sales to Taiwan). Given China's capacities, as evidenced in the 2007 anti-satellite test, and uncertainty as to its intentions in outer space, the initiation of a strategic dialogue with Beijing that includes space security should be a near term priority for the United States.

In addition to the establishment of bilateral outer space security dialogues with major space-faring nations, there will also be pressure to initiate consideration of multilateral measures. The European Union and its "Code of Conduct" is a natural starting point for any multilateral arrangement. Although the current draft, agreed to by the European Council in December 2008, is devoid of major security measures, it does promote increased transparency and debris avoidance procedures. Moreover, the approach it espouses of politically, versus legally, binding TCBMs is one that should appeal to the Obama Administration. Unlike the Russian and Chinese treaty proposals currently on the table in Geneva, a set of TCBMs as proposed by the E.U. would enable the Administration to avoid dealing with legal instruments that would require Congressional review. Agreeing to endorse some of the modest TCBMs in the E.U. draft would provide a low-cost way of partnering with a broadly like-minded



grouping of states. It would at the same time send a signal of U.S. re-engagement in multilateral space security diplomacy that would be useful from a foreign policy perspective.

It is noteworthy, however, that despite the reference by American diplomats in the General Assembly last year to working with the E.U. to develop a set of TCBMs, mention of the E.U. is absent from the NSP and more recent statements by U.S. senior officials. Whether this stems simply from a wariness of proposals originated abroad or whether there are substantive U.S. reservations regarding the proposed Code of Conduct is not clear. It will be instructive to see how the E.U. decides to proceed with this initiative as its space diplomacy to date has been marked by great caution and deference to U.S. preferences. An E.U. statement delivered to the Conference on Disarmament last year indicated that the Union was consulting other space-faring nations on the Code and that at the end of this consultation “...an ad hoc conference would be organized in order for states to subscribe to the Code.” Given the cautious approach that has characterized the E.U. initiative so far, it would seem improbable that the Union would proceed with organizing such an international conference to launch the Code without the approval and participation of the United States.

Canada's Role

Although there has not been any official public reaction by the Canadian Government to the release of the NSP, it will most likely be welcomed by the federal government. For several years, Canada has been working in both the General Assembly and Conflict on Disarmament to promote international cooperation in space security. The U.S. endorsement of General Assembly resolutions that Canada has long supported and American willingness to consider measures for international cooperation in outer space will come as a relief to Canadian policy makers. A policy rapprochement between the Canadian and American governments will reduce the risk of disagreements in space security issues becoming an irritant in bilateral relations. At the same time, Canada has elaborated on

its own thinking on space security in a more specific manner than the NSP. It has, for example, suggested specific ideas for TCBMs pursuant to the Russian-sponsored General Assembly resolution on this subject. These Canadian proposals have ranged from making better use of cooperative provisions contained in existing agreements (such as the Outer Space Treaty or the Hague Code of Conduct), to having states ban the placement of weapons in outer space and pledge not to test or use a weapon against any satellite so as to damage or destroy it. As the NSP studiously avoids getting into specifics on any space security proposal, it will be interesting to see if the U.S. eventually endorses any of the Canadian ideas for TCBMs. For U.S. policy makers, an appealing element of the Canadian proposals, as with the E.U. Code of Conduct, is that they either relate to existing agreements or represent political measures that would avoid entering into any new legal commitments. Present difficulties obtaining Senate support for ratification of the new START treaty and the even higher hurdle represented by the Comprehensive Test Ban Treaty, which Obama has promised to re-submit to the Senate, certainly validate the Administration's caution about initiating any new treaty on outer space security. Unlike the E.U. Code, however, Canada's proposals have substantial security content. The prohibition on the placement of weapons in outer space, the pledges not to test or use a weapon against any satellite, and the pledge not to employ any satellite itself as a weapon would, if generally adopted, represent a major advance in space security.

In lieu of waiting for U.S. leadership, Canada could try to promote its own proposals more broadly, although this would require a political and diplomatic commitment that does not seem likely in the current Canadian political environment. Canada, while not a major space-faring nation, has developed capabilities in the use of space and enjoys a positive reputation as one of a handful of states (alongside Russia, China and the E.U.) that have been consistently active in diplomatic forums addressing space security issues. This provides Canada with crucial credibility if it chooses to champion international space security initiatives more vigorously. Even if Canadian ideas are not entirely

embraced by other states, Canadian engagement in outer space security would encourage more powerful actors such as the E.U. and the U.S. to come forth with more substantial proposals of their own.

Conclusion

The release of the NSP by the Obama Administration represents a positive evolution in U.S. space security policy. It signals a more open attitude towards enhanced international cooperation in outer space, while avoiding any commitment to specific measures at present. In that, the NSP resembles a ‘watch this space’ ad: it has garnered attention but will soon require filling in if the policy is to be substantive rather than merely declaratory. Whether through endorsing the modest measures of the E.U. Code or by venturing to suggest a measure of its own, such as on joint space situational awareness, an initiative designed for international consumption will likely be forthcoming from the United States. The NSP’s reassertion of a leadership role for the United States in the global outer space policy arena has raised expectations for this level of international engagement, at the least. Alternatively, if the United States continues to be quiescent, the E.U. and Canada have an opportunity to exercise diplomatic leadership on the space security file. It would be a shame if the benign outer space environment the world currently enjoys is jeopardised because key states failed to take preventative action in time. 

Paul Meyer is a retired Foreign Service Officer and former Canadian Ambassador and Permanent Representative to the United Nations and the Conference on Disarmament, Geneva (2003-2007). He served as Special Coordinator for the CD discussion of its agenda item on “Prevention of an Arms Race in Outer Space” during its 2007 session.



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