

## An Opportunity to Take the Lead: How the Next National Space Policy Can Restore U.S. Leadership in Outer Space

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The United States has been the *de facto* leader in outer space activities since it placed men on the Moon during Project Apollo. That success culminated the Cold War space race with the Soviet Union, and the resultant technological and scientific benefits gave the United States significant geopolitical prestige and the mantle of leadership in outer space. Since the Cold War, the United States continued that leadership by morphing outer space activities not only into an arena for geopolitical prestige, but one for exploitation. Visible programs such as the Space Shuttle and the International Space Station and less visible scientific, military and intelligence programs demonstrate that outer space has practical benefits to be exploited and has significant national security applications, to which the United States has played the role as leader.<sup>1</sup> Yet, the United States' rise to leadership in outer space was not the result of random decisions based solely on political whim. Rather, that rise was the result of national space policies implemented over successive Presidential administrations that served as a guide for the nation's outer space activities.

A national space policy enunciates a nation's goals in outer space and the means by which they will be achieved. National space policies are motivated and shaped by bureaucratic compromise, domestic politics, and foreign policy goals. They are intended for multiple audiences, including the national legislative body, the general public, foreign allies, adversaries, third parties such as the United Nations and non-governmental organizations (NGOs).<sup>2</sup> National space policy for the United States expresses national security, civil, commercial, and scientific interests and activities in the space environment. It includes implementation guidelines for the nation's individual national security (military, intelligence), civil, and commercial space communities.<sup>3</sup>

When crafting a national space policy, policy-makers in the United States consider the nation's space capabilities, the emerging international security environment, how adversaries with asymmetric capabilities and associated priorities might relate to the National Space Policy, how other countries might find the National Space Policy relevant to their security interests, and how the United States can shape the international space regime to achieve its policy objectives.<sup>4</sup> Depending

on its intended audience, there may be classified and unclassified versions of the National Space Policy, both of which are used to direct executive agencies involved in the nation's outer space activities and guide the Congress to create laws that are consistent with the National Space Policy's edicts.

The National Space Policy is not a new executive tool. The first preliminary National Space Policy was presented to President Dwight D. Eisenhower on June 20, 1958.<sup>5</sup> Subsequent administrations starting with the Kennedy Administration supplanted the Policy of the prior administration and created a Policy that reflected its own ideology regarding outer space. In most cases, the Policy of a new administration builds upon that of the previous administration, but in some cases a successive space policy will reverse the prior administration's approach in one or several aspects.<sup>6</sup> This is not always a positive and often reflects an administration's desire to pursue either a geopolitical or globalist approach to outer space activities.

Case in point is the Policy implemented by the Administration of President George W. Bush in 2006. The Policy of 2006 took a decidedly proactive approach to outer space particularly with its assertion that it would protect its space assets and if necessary, deny the use of outer space to adversaries that are hostile to U.S. interests.<sup>7</sup> This declaration was a significant tack toward the geopolitical approach and represented a statement of leadership in outer space activities. The 2006 Policy also took the geopolitical step of opposing the development of new legal regimes or other international restrictions that would seek to prohibit or restrict U.S. access to space. These principles and others within the 2006 Policy led to widespread condemnation and provided much soft-power fodder for geopolitical rivals, especially amongst those with prolific outer space activities of their own.<sup>8</sup>

Distinctively, the advent of the Administration of President Barack Obama began a direction away from geopolitics to focus on a globalist point of view and essentially ceded the responsibility of U.S. leadership to one of leading from behind under the guise of "international cooperation". This is reflected in the 2010 National Space Policy, which walks back what are considered some of the more provocative principles of the 2006 Policy.<sup>9</sup>

What is more, the 2010 Policy walks back the 2006 Policy's prohibition on developing new international legal regimes and is pursuing the use of transparency and confidence-building measures (TCBMs) in the United Nations to promote outer space security while also keeping the option open to sign onto 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.<sup>10</sup> This change in policy has effectively ceded the perspective of active leadership to passive cooperation.<sup>11</sup>

The solution to reaffirming leadership does not rest in massive spending programs on hardware to achieve space first but at the policy level where the decline in outer space leadership really began. To that end, the next Administration, which will promulgate its own national space policy, has the opportunity to create a new policy environment that will reaffirm the role of the United States as the leader in outer space activities and security and how it promotes that approach to the international community.<sup>12</sup> Specifically, a policy that returns to a geopolitical approach that emphasizes a proactive deterrence towards the defense of space assets as seen in the 2006 Policy coupled with a non-traditional approach to creating non-binding international norms would position the United States to affirm its role of leadership in outer space activities.

The term 'norm' is commonly averred as "a standard of appropriate behavior for actors with a given identity," but it is consistently misapplied to be solely the province of formal or informal multilateral international accords. Traditionally, most norms for outer space activities and security have resided in the province of legally binding treaties or other top-down measures.<sup>13</sup> However, treaties used to address outer space issues have fallen into disfavor, especially among states who have more developed space programs and depend on outer space for their national security, but that doesn't stop some states from presenting multilateral treaties for adoption. For example, the Russian Federation and the People's Republic of China have been trying to establish international "norms" regarding the ambiguous issue of the space weapons through formal measures such as the Proposed Prevention of an Arms Race in Outer Space Treaty (PAROS) and the Prevention of the Placement of Weapons in Outer Space Treaty (PPWT) in the United Nations Conference on Disarmament. Both of these proposals have significant flaws and stiff international opposition that gives either measure little chance of gaining formal status as international law. As a result, their role in creating legally binding norms will be miniscule if non-existent and will only serve as a limited soft-power tool for their sponsors.<sup>14</sup>

A less formal approach to establish "norms" being explored is the use of TCBMs to address outer space security.<sup>15</sup> TCBMs are considered to be "soft-law" as opposed to formally binding treaties, which are considered "hard law."<sup>16</sup> Bilateral TCBMs have been used to great effect by United States Strategic Command with regards to data sharing for space situational awareness, but their use in a multilateral contract as envisioned by the 2010 Policy is questionable as to whether they can be effective in a top-down environment without being legally binding. Moreover, that TCBMs were originally

intended to be precursors to arms control agreements leaves open the question of whether the tiger's stripes can be changed or that indeed TCBMs in this arena represent the arms control equivalent of the proverbial wolf in sheep's clothing.

The use of treaties and TCBMs to create norms presupposes that norms have to be legally binding under international law in order to be an effective and recognized practice, and that norms must be created from a top-down approach. This assumption ignores that norms can be created by a state and be translated into voluntary international practices that need not be legally-binding to be recognized. That is to say in the case of outer space security, voluntary international norms can be created by following the example of non-legally binding and legally-binding norms that find their genesis in the domestic laws, regulations and practices of states and non-government actors.

The next administration has the opportunity to create a paradigm shift in international relations and outer space security by creating a national space policy that accentuates bottom-up rule making as the basis of creating international norms to shape the international legal and policy environment as opposed to reverting to top-down approaches that are little more than disguised attempts to corner the United States into a legal and soft-power corner. While such an approach may seem fanciful, the current environment of commercial space activities have produced initiatives that have the potential of being bottom-up in nature.

Specifically, the 114th Congress has introduced reciprocal bills in the House of Representatives and the Senate to promote the exploration and utilization of resources in outer space.<sup>17</sup> One of the provisions within the two bills creates a duty upon the President, acting through appropriate Federal agencies to "promote the right of United States commercial entities to explore outer space and utilize space resources, in accordance with the existing international obligations of the United States, free from harmful interference, and to transfer or sell such resources."<sup>18</sup>

The bills as written would only require the Executive Branch to promote resource development according to existing international legal obligations, but one of the shortcomings of the bills is that it they don't fully recognize that international political sentiment and norms will have to be created to make domestic development of outer space resources palatable. This requires a modification of the bills such that the Executive Branch has the authority via federal law to promote non-binding international norms that would foster a legal and political environment that would be acceptable to the international community for the development of outer space resources. However, for these two bills to be effective requires a shift from the globalist tack taken by the

2010 Policy to a geopolitical stance that would facilitate a bottom-up approach to international rulemaking.

Aside from providing a conducive policy environment for the Space Resource and Utilization Act of 2015, a national space policy that promotes a bottom-up approach to international rulemaking could reaffirm U.S. leadership in outer space by addressing one of the growing concerns in outer space security: orbital space debris. The 2006 Policy addressed the issue of space debris and the need to mitigate its creation and to take a leadership role to encourage foreign nations to adopt policies and practices to minimize its creation. However, the 2010 Policy adopted the globalist approach and focused on domestic and international measures to deal with mitigation, which in essence ceded the leadership role for taken by the 2006 Policy to the international community.

The next national space policy that features a bottom-up approach to international rulemaking would also address orbital space debris, but rather than stop at promoting policies to mitigate space debris, the next national space policy could require that the United States develop domestic policies aimed at remediating space debris created by its own outer space activities. The United States unquestionably has contributed to the existing space debris environment, but it has also taken the lead in advancing practices to mitigate space debris, which have led to non-binding international practices and norms. Taking the next step and pursuing domestic policies for remediation would be a bold move. It goes without saying that there are substantial legal and political issues surrounding the remediation of space debris, including the questionable issue of whether remediation methodologies could represent the placement and testing of a "space weapon."<sup>19</sup> Aside from this is the substantial financial cost of removing space debris, all of which has led the United States to cede the space debris issue to the international arena.

If the next national space policy takes ownership of space debris created by the outer space activities of the United States coupled with a bottom-up approach to the creation of non-binding norms, it can provide the context for the Executive Branch to implement directives to its subordinate agencies to create the necessary domestic and international conditions for a bottom-down approach.<sup>20</sup> More so, the national space policy's directive on space debris remediation would foster the legislative environment necessary to pass federal laws to provide the funding for and authorization for federal agencies to move forward with this bold initiative. Once the United States takes the domestic initiative through its own laws and policies to remove space debris created by its outer space activities, the die will be cast for setting non-binding international norms for remediation.

A domestic initiative to remediate space debris will meet substantial soft-power resistance, most notably from other space-faring nations whose outer space activities have contributed to the current space debris environment. The stakes are high for these nations because if the United States takes leadership in this arena of outer space it can conceivably create an international environment where a non-binding norm for space debris could generate sufficient soft-power pressure to compel other space faring nations to adopt similar practices. Even more, the United States could raise its international prestige and raise the stakes for other space faring nations if it chose to bring this type a non-binding norm a step further and commit to be bound legally at the international level, which would form the basis for customary international law.

Consequently, a bottom-up approach to space debris remediation or any other international non-binding norm would meet resistance not only from other geopolitical players in the international arena, but from those groups and interests that thrive in the political environment created by top-down methodologies. This approach will undoubtedly lead to substantial soft-power pushback to the extent of allegations that the United States seeks to dominate not only the physical realm of outer space but the political and legal environment as well. Such tired cant is to be expected but should not deter the next administration from basing the next national space policy on a bottom-up approach, nor should it dissuade the United States from taking the lead in the creation of international norms relating to outer space activities.

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<sup>1</sup> The optics of a space program weigh heavily in the consideration of a nation's leadership in outer space activities, and many argue that the alleged decline of a highly visible space program means that the United States is relinquishing its leadership to other nations. As a result, some experts are calling for more international cooperation as a solution to revitalize our leadership in outer space. See generally, Dr. Scott Pace, [American Space Strategy: Choose to Steer, Not Drift](#), The Diplomat, March 28, 2013 and Joan Johnson-Freese, [Ceding American Leadership in Space](#), The Fletcher Forum of World Affairs, Vol.39:1, Winter 2015.

<sup>2</sup> Dr. Dana J. Johnson, "[National Space Policy: Opportunities and Challenges in Shaping the International Space Regime](#)", in Air Force Space Command High Frontier: The Journal for Space & Missile Professionals, Volume 3, Number 2, p. 50.

<sup>3</sup> Id.

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<sup>4</sup> [See Id.](#)

<sup>5</sup> [See National Security Council Planning Board. NSC 5814/1.](#) “Preliminary U.S. Policy on Outer Space.” Dwight D. Eisenhower Presidential Library and Museum. 20 Jun. 1958.

<sup>6</sup> An example of this is in the arena of commercial space. The Eisenhower Administration's space policy took the lead in promoting commercial space activities. This led AT&T and Bell Labs to construct TELSTAR-1, which was launched by a military rocket. However, the Kennedy Administration's space policy stalled domestic commercial development and instead emphasized international collaboration, which led to the creation of the INTELSAT consortium. It wasn't until the Reagan Administration's space policy that domestic commercial space was accentuated once again. That emphasis on commercial space activities gained momentum with the Bush space policy in 2006 and was further encouraged with current national space policy.

<sup>7</sup> [U.S. National Space Policy \(Unclassified\)](#), authorized August 31, 2006.

<sup>8</sup> There was speculation that the 2006 Policy led the People's Republic of China to perform the infamous 2007 ASAT test against one of its weather satellites in polar orbit. Congress specifically inquired the State Department as to whether this was the case, but in its April 23, 2007 report the State Department concluded that even before issuance of the U.S. space policy, China conducted three previous tests of this direct-ascent ASAT weapon and, by September 2006, China had used a ground-based laser to illuminate a U.S. satellite in several tests of a system to “blind” satellites. Before and after this latest ASAT test, PRC military and civilian analysts have voiced concerns about China's perceived vulnerability against U.S. dominance in military and space power. After the test, a Senior Colonel of the PLA's Academy of Military Sciences said that “outer space is going to be weaponized in our lifetime” and that “if there is a space superpower, it's not going to be alone, and China is not going to be the only one.” [See generally Michael J. Listner, An exercise in the Art of War: China's National Defense white paper, outer space, and the PPWT](#), *The Space Review*, April 25, 2011.

<sup>9</sup> This ideal is prominent in the current National Space Security Space Strategy, which focuses on deterrence not through the threat of force or counter-space capabilities but through norms, deterrence entanglement/alliances, resilience, and deterrence response. [See generally, Christopher Stone, Security through vulnerability? The false deterrence of the National Security Space Strategy](#), *The Space Review*, April 15, 2015.

<sup>10</sup> The use of TCBMs to address outer space security may represent a back-door attempt to circumvent Senate treaty approval to create legally-binding norms for outer space security. TCBMs by nature are precursors to legally-binding arms control agreements, and their use has been supported by the arms control community. Illustrative of this is the International Code of Conduct for Outer Space Activities (ICoC), which is being led by the European Council and is supported by the arms control community. The ICoC is

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essentially a TCBM, which is a political agreement and not intended to be legally-binding. However, comments by elements of the arms control community state that when and if the ICoC is signed it will create legally-binding norms via customary international law. This assertion is false and ignores what it takes to achieve customary international law, but that the arms control community makes such a claim demonstrates that the current National Space Policy has at least given the perception that that it has relinquished geopolitical national security concerns for a "top-down" globalist approach. See generally, Michael J. Listner, [Customary international law: A troublesome question for the Code of Conduct?](#), The Space Review, April 28, 2014.

<sup>11</sup> [National Space Policy of the United States of America](#), June 28, 2010, p.7.

<sup>12</sup> The point of this essay is not to critique what an entire national space policy should look like; it is to suggest a few ideals that might be implemented in the next national space policy to change the direction of U.S. space policy and reestablish the nation's leadership in outer space activities.

<sup>13</sup> "Top-down" international rulemaking typically centers on a state's treaty-based commitments or on an intergovernmental institution born from a treaty. Conversely, "bottom-up" rulemaking, which is the suggested approach for the next National Space Policy, involves lawmaking by private parties, but also has been defined to cover lawmaking made by domestic government actors and government agencies. See generally Janet Koven Levit, [A Bottom-Up Approach to International Lawmaking: The Tale of Three Trade Finance Instruments](#), THE YALE JOURNAL OF INTERNATIONAL LAW, Vol. 30, p. 125.

<sup>14</sup> Michael Listner and Rajeswari Pillai Rajagopalan, [The 2014 PPWT: a new draft but with the same and different problems](#), The Space Review, August 11, 2014.

<sup>15</sup> TCBMs are political agreements that are not intended to be legally-binding in the international community. They are part of the legal and institutional framework and are commonly used in the realm of arms control by supporting military threat reductions and confidence-building among nations. The United Nations recognizes TCBMs as a means to tender transparency, assurances and mutual understanding amongst states, which is intended to reduce misunderstandings and tensions. TCBMs are considered a top-down approach to addressing issues, but they are intended only as a stepping stone to legally-binding treaties and are not intended to supplant them. *See generally, Andrey Makarov, [Transparency and Confidence-Building Measures: Their Place and Role in Space Security](#), Security in Space: The Next Generation-Conference Report, 31, March-1 April 2008, United Nations Institute for Disarmament Research (UNIDIR), 2008.*

<sup>16</sup> Whether an agreement is considered "soft law" is multi-dimensional, but for purposes of this discussion TCBMs are considered "soft-law" because they are not legally or formally binding upon the state that enters into them.



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<sup>17</sup> See [S. 976 -- Space Resource Exploration and Utilization Act of 2015](#) and [H.R. 1508 -- Space Resource Exploration and Utilization Act of 2015](#).

<sup>18</sup> S.976, § 51302(a)(3); H.R. 1508, § 51302(a)(3).

<sup>19</sup> Michael J. Listner, [Legal issues surrounding space debris remediation](#), The Space Review, August 6, 2012.

<sup>20</sup> An illustration of international reaction to space debris remediation can be found in the intercept of USA-193. The United States employed an ancillary capability to its sea-based ballistic missile defense system to intercept the failed intelligence sight before it could reenter the atmosphere and potentially spread contamination from its titanium fuel tank filled with frozen hydrazine. Despite a non-required briefing to COPUOS by Dr. Nicholas Johnson (retired) of NASA's Orbital Program Office, the Russian Federation and the People's Republic of China in an example of soft-power posturing condemned this remediation effort as the test of an ASAT. This reaction was predicted by the Bush Administration before the intercept was authorized. A similar soft-power reaction can be expected should the United States decide to take a proactive bottom-up approach to space debris remediation.