


September 2006

## SPACE CONTROL, DIPLOMACY, AND STRATEGIC INTEGRATION

R. Joseph DeSutter

*National Defense University*, [r.joseph.desutter@edu.edu](mailto:r.joseph.desutter@edu.edu)

Follow this and additional works at: <https://digitalcommons.unomaha.edu/spaceanddefense>

 Part of the [Asian Studies Commons](#), [Aviation and Space Education Commons](#), [Defense and Security Studies Commons](#), [Eastern European Studies Commons](#), [International Relations Commons](#), [Leadership Studies Commons](#), [Near and Middle Eastern Studies Commons](#), [Nuclear Engineering Commons](#), [Science and Technology Studies Commons](#), and the [Space Vehicles Commons](#)

Please take our feedback survey at: [https://unomaha.az1.qualtrics.com/jfe/form/SV\\_8cchtFmpDyGfBLE](https://unomaha.az1.qualtrics.com/jfe/form/SV_8cchtFmpDyGfBLE)

### Recommended Citation

DeSutter, R. Joseph (2006) "SPACE CONTROL, DIPLOMACY, AND STRATEGIC INTEGRATION," *Space and Defense*: Vol. 1: No. 0, Article 6.

DOI: 10.32873/uno.dc.sd.01.01.1240

Available at: <https://digitalcommons.unomaha.edu/spaceanddefense/vol1/iss0/6>

This Article is brought to you for free and open access by DigitalCommons@UNO. It has been accepted for inclusion in Space and Defense by an authorized editor of DigitalCommons@UNO. For more information, please contact [unodigitalcommons@unomaha.edu](mailto:unodigitalcommons@unomaha.edu).

## SPACE CONTROL, DIPLOMACY, AND STRATEGIC INTEGRATION

R. Joseph DeSutter, Ph.D.

*R. Joseph DeSutter is Director of the School for National Security Executive Education at National Defense University.*

As U.S. space capability came of age in the early 1960s it made substantive arms control negotiations possible. Arms control proponents like to argue that treaties, in turn, legitimated spy satellites by acknowledging their existence and sanctioning their use for verification. But the half-century old relationship between satellite technology and arms control has hardly been marked by such reciprocity. While satellite technology has enabled arms control, arms control has imposed nontrivial constraints on America's strategic exploitation of outer space. In bureaucratic terms, Department of Defense (DOD) exploitation of outer space has been retarded by State Department instruments that were only possible because of military exploitation of space.

That in itself is hardly novel. The military and diplomatic instruments of American power are notoriously uncongenial partners. The bureaucratic orientations of State and Defense are governed by differing, often hostile habits of thought. They represent domestic and international networks with political, indeed partisan, characteristics. Each has a global footprint and a crisis management perspective that frequently negates the perspective of the other. Moreover, the two bureaucratic cultures tend to perceive policy options in either-or terms. When challenges arise abroad, this cultural bifurcation typically casts U.S. response options in mutually exclusive terms: will the U.S. response be military *or* diplomatic – as if the zero-sum nature the “choice” were an eternal verity.

Must it always be so? What if diplomacy *designed* space-related international regimes to enhance the security of U.S. satellites and the integrity of their vital data streams? What if the resultant American freedom of action in outer space were employed not just in compliance with such a framework but in enforcement of it? What if the two processes could rise above their zero-sum traditions and actually supplement one another? In fact, such a strategic partnership is both possible and necessary – possible because diplomacy and space control share the unambiguous common purpose of enhancing U.S. national security; necessary because space control is more than a military challenge. Because it also involves civil, commercial, and diplomatic interests, space policy must culminate in enforceable regimes that take account of each. The analogous relationship between sea control and maritime law demonstrates both the possibility *and* the necessity.

By outlawing repugnant activities like slave trading, drug smuggling, and terrorism on the high seas,<sup>1</sup> maritime law establishes the very frame of reference from which naval rules of engagement begin. The law's jurisdictional protocols, identification

---

<sup>1</sup>“High seas” is a legal term of art for international waters. National sovereignty extends 12 miles from a nation's shores according to the [UN Law of the Sea](#). Certain environmental protection and national security rights extend to a 200-mile limit under the 1958 Geneva Convention. Thus, it is commonly understood that the high seas, over which sovereignty may not be claimed, begin beyond the 200-mile limit.

procedures, and signals of purpose and intent tell coast guards and navies when and how to act. Falsely flagged or unflagged vessels can be hailed, interrogated, boarded, seized, disabled, or even destroyed. Flagged ships in U.S. territorial waters must be aided if they are in distress and may be challenged only under specified circumstances. The diplomatic and military instruments of U.S. power thereby interact to the benefit of both toward a common strategic purpose.

This relationship, so deeply embedded in maritime history and tradition, is not presently mirrored in the realm of outer space, and indeed that is the first challenge that space control proponents must face. One obstacle will be the longstanding bifurcation of space assets between those classified for national security purposes and those that perform conventional or nonmilitary missions. The former has included reconnaissance satellites since the day President Eisenhower defined the two mission areas as separate. In 1958, when Eisenhower compartmentalized spy satellites and fostered creation of the United Nations (UN) Committee on the Peaceful Use of Outer Space, the United States faced a single strategically closed adversary who was demonstrably capable of manipulating foreign images of its strength or weakness. Understandably, strategists under these conditions elevated strategic information – the capacity to *observe* an otherwise opaque threat – to the tier of U.S. interests ranked as vital. But that judgment held sway when U.S. space assets were physically beyond the reach of technology and their physical protection therefore less urgent.

Eisenhower's "Peaceful Uses of Space" policy spawned national and international institutions, which spawned space law agreements that are now a half century old. Recognizing the constructive achievements of sea law, these early instruments of space law emulated their predecessors' founding principles. Like the premise that all nations share the right to transit the high seas peacefully, for example, the 1967 Outer Space Treaty assigns international status to outer space. Just as flagging laws tell civil and military authorities whose laws

will prosecute illegal maritime behavior, space outlaws are subject to the laws of the state from which they embarked. In both cases the violators relinquish their entitlement to protection from any state.

But if the sea-space analogy can be sustained in regard to the premises of law, it fails catastrophically when the discussion turns to the *enforcement* of law. What if an acknowledged space crime cannot be traced to a given state or to a state party to the Outer Space Treaty? True, the space law violator would still be subject to after the fact enforcement measures just as maritime criminals can be prosecuted upon return to port. But punishment after-the-fact is universally recognized inadequate in regard to sea law, which aims to negate the consequences if not the act itself *before* its effects are achieved. While prosecution after-the-fact may be conceivable in the case of outer space law, the instruments of crime *prevention* are neither in place nor under serious discussion. The resultant capacity differential suggests that peaceful behavior is strategically less important in outer space than at sea. Since that has become an impossible proposition to defend, the rationale for capacity differential must lie in the non-strategic realm.

To achieve the space control objectives outlined by each of the past five administrations, space strategy must include enforcement measures that include prevention and negation of effects as well as after-the-fact punishment. To the extent that the sea control analogy is useful, however, it must be international law that is enforced, not just national strategy. But that will be possible only if the law is structured in support of strategy and vice versa. That approach to space strategy will require a holistic outlook that takes account of the diplomatic perspective instead of the narrow view that frames each issue in either-or

**the sea-space  
analogy fails  
catastrophically  
when discussion  
turns to  
enforcement  
of law**

terms. For either perspective to be relevant the framework must be oriented toward the advancement of what is clearly a vital U.S. national security requirement – secure access to and freedom of action in outer space.

### *Space Technology's Contribution to Arms Control*

Arms control was a largely academic exercise in the service of U.S. public diplomacy before the first successful Corona satellite mission in 1960. The most militant Cold War U.S. national security policy ever articulated – NSC-68 in 1950 – began with the straightforward presumption that the American people would insist “that the free world be continuously prepared to negotiate agreements with the Soviet Union on equitable terms.”<sup>2</sup> Presidents Truman, Eisenhower, and Kennedy struggled mightily to reconcile that political reality with Soviet disdain for any agreement that would advance U.S. security. A central ingredient of that bilateral dynamic – from an operational as well as a public relations standpoint – was therefore “verification.”

There were two problems with this model. First, verification was not the real impediment. As long as the Union of Soviet Socialist Republics (USSR) defined itself as the “antithesis” of the postwar international status quo, Soviet leaders could hardly accept legal arrangements designed to institutionalize a secure western industrial order. To do so would cast doubt on the communist regime’s already questionable claims to legitimacy. Second, any U.S. effort to negotiate in the face of that reality would encounter an operational challenge that was

**analysts could  
only extrapolate  
from what they  
knew of German  
and U.S. ballistic  
missile programs**

related to verification. Soviet negotiators would arrive at a negotiating table fully informed on a bilateral balance of power that was still subject to wide speculation in the West. That would be disadvantageous under any conditions, but Soviet negotiators would also represent a government that was both organized and inclined to conduct orchestrated campaigns of clandestine noncompliance.

Theory had it that this gaping chasm between a constitutionally open and a strategically closed society could be *bridged* if monitoring provisions allowed U.S. observation of Soviet compliance. Efforts to construct such a bridge from 1945 to 1965 were as creative as they were futile. Truman’s 1946 Baruch Plan<sup>3</sup> made a unilateral U.S. nuclear disarmament proposal contingent upon Soviet acceptance of international inspection rights. Eisenhower offered the Soviets blueprints of American defense facilities, access to American airfields, and unimpeded overflight rights using any collection equipment needed, if they would accept his 1955 “Open Skies” proposal.<sup>4</sup> Kennedy tabled one on-site inspection proposal after another at the UN’s Eighteen Nation Disarmament Commission. Each was unequivocally rejected.

In truth, the pre-Corona U.S. national security dilemma involved a threat assessment challenge what was far more fundamental than the verification challenge. The intelligence community (IC) knew in the mid-1950s of an energetic Soviet intercontinental ballistic missile (ICBM) research and development (R&D) program, but had “no firm current intelligence on what particular guided missiles the USSR is presently developing or may

---

<sup>2</sup>S. Nelson Drew, ed., *NSC-68: Forging the Strategy of Containment* (Washington, D.C.: NDU Press, 1994), pp. 76-80.

---

<sup>3</sup>Bernard M. Baruch, 14 June 1946, UN Atomic Energy Commission. U.S. Department of State *Bulletin*, 23 June 1946, “Proposals for an International Atomic Development Authority.”

<sup>4</sup>Statement by President Eisenhower at the Geneva Conference of Heads of Government: Aerial Inspection and Exchange of Military Blueprints, 21 July 1955. *The Geneva Conference of Heads of Government, July 18-23, 1955* (Department of State publication 6046, 1955), pp. 56-59. *Documents on Disarmament, 1954-1959*, pp. 486-492.

now have in operational use.” To estimate the missile threat, analysts could only extrapolate from what they knew of German and U.S. ballistic missile programs and Soviet progress in other fields. These indirect indicators, paired with speculation on Soviet intentions, were all that underpinned threat projections. As a result, the 1954 National Intelligence Estimate (NIE) would acknowledge that “estimates of missile characteristics and of dates of missile availability must be considered as only tentative, and as representing our best assessment in light of inadequate evidence in a new and largely unexplored field.”<sup>5</sup>

Conditions would change little through the remainder of the decade. Years of clandestine reconnaissance overflights,<sup>6</sup> including the U-2 program beginning in 1956, provided the IC with piecemeal imagery of Soviet deployments, but “insufficient direct evidence to establish the scale and pace of the present Soviet ICBM production and deployment program...” Through 1960, NIEs would rely “on various indirect forms of evidence and on argument and analysis deduced from more general considerations.” The data were so ambiguous that the Air Force could predict 150 Soviet ICBMs by mid-1961 and 700 by mid-1963, while the Army and Navy were estimating 50 and 200 respectively with the State Department splitting the difference.<sup>7</sup>

---

<sup>5</sup>“NIE 11-6-54: Soviet Capabilities and Probable Programs in the Guided Missile Field,” in Donald Steury ed., *Estimates on Soviet Military Power, 1954 to 1984*, (Washington, D.C.: Center for the Study of Intelligence, 1996).

<sup>6</sup>For a partial account of U.S. Cold War reconnaissance missions, see Robert L. Goldrich, “Cold War Shoot-Down Incidents Involving U.S. Military Aircraft Resulting in US Casualties,” Foreign Affairs and National Defense Division, Congressional Research Service, Library of Congress, July 1992.

<sup>7</sup>“NIE 11-8-60: Soviet Capabilities and Probable Programs in the Guided Missile Field,” Donald Steury, *Intentions and Capabilities: Estimates on Soviet Strategic Forces, 1950 to 1983*, (Washington, D.C.: Center for the Study of Intelligence, 1996).

The U.S. arms control agenda of those years involved highly publicized proposals and dialogues, none of which addressed deployed weapons. Grandiose discussions of mutual disarmament and comprehensive nuclear test bans became commonplace while serious discussion was constrained to modest limits on proliferation, testing in the atmosphere and in space, and rules of the road for uncontested regions like Antarctica and the seabed. Ostensibly, discussion of actual weapons was prohibited because the United States could not verify Soviet compliance, and because no Soviet interest was served by removing that obstacle. Disclosure of the more fundamental impediment – that the IC was too blind to conduct garden-variety national security threat assessments – would hardly have advanced U.S. public diplomacy goals.

The latter problem would change dramatically in August of 1960 when the fourteenth Corona mission, carrying Discoverer 14, made seventeen passes over Soviet and East European territory.<sup>8</sup> President Eisenhower and Central Intelligence Agency (CIA) Director Allen Dulles gaped in amazement as photographs developed from sixteen pounds of recovered film were delivered to the oval office. That mission alone showed the President more coverage than all prior U-2 flights combined. The 1.5 million square miles of scanned territory revealed tanks, submarines, bombers, ICBMs, 64 air bases, and 26 surface-to-air missile (SAM) sites.<sup>9</sup> According to Bud Wheelon, who later directed the Corona Program, for policy makers and intelligence analysts, “it was as if an enormous floodlight had been turned on in a darkened warehouse.” Indeed,

---

<sup>8</sup>The date of the first capsule’s recovery, 18 August 1960, was the same day U-2 pilot Frances Gary Powers was sentenced in Moscow for piloting the last U-2 flight ever flown over the USSR. The “Discoverer 14” nomenclature would be retroactively changed to comport with the “KH” system when the Talent-Keyhole program was instituted. See Dwayne A. Day, John M. Logsdon, and Brian Latell, eds., *Eye in the Sky; The Story of the Corona Spy Satellites* (Washington: Smithsonian Institution Press, 1998), p. 6.

<sup>9</sup>William E. Burrows, “[Imaging Space Reconnaissance Operations during the Cold War: Cause, Effect and Legacy](#),” in *The Cold War Experience*, the Cold War Website, p. 5.

Corona would quickly acquire the “decisive technology” status once reserved for World War II Enigma intercepts.<sup>10</sup> Suddenly, the 1961 NIE would differ markedly from those that preceded it:

Through KEYHOLE photography over the past three months, we have positively identified three ICBM complexes under construction. Two are near Yur’ya and Yoshkar-Ola, in a region several hundred miles northeast of Moscow, and the third is near Verkhnyaya Salda in the Urals. The paired, road-served pads at those complexes closely resemble those at Tyuratam Area C. Near Kostroma, in the same general region but closer to Moscow, the photography revealed a new clearing suitable for a pair of pads, and we believe this is possibly a fourth complex similar to the others.<sup>11</sup> ...[This] new information, providing a much firmer base for estimates on Soviet long-range ballistic missiles, has caused a sharp downward revision in our estimate of Soviet ICBM strength.... We now estimate that the present Soviet ICBM strength is in the range of 10-25 launchers from which missiles can be fired against the United States, and that this force level will not increase markedly during the months immediately ahead.<sup>12</sup>

Over and over the USSR had surprised American governments – from Stalin’s provocative foreign policy speech of 1946, to the atomic bomb test of 1949, to the hydrogen bomb test of 1953, to the ICBM and Sputnik launches of 1957. Each had caught the United States off guard. In combination with a bellicose foreign policy and a drumbeat of hostile public diplomacy, these surprises achieved

---

<sup>10</sup>Albert D. Wheelon, “CORONA, A Triumph of American Technology,” Day, Logsdon, and Latell, eds., *Eye in the Sky*, p. 38.

<sup>11</sup>Kevin C. Ruffner, *Corona: America’s First Satellite Program*, (Washington, D.C.: Center for the Study of Intelligence, 1995), p. 137.

<sup>12</sup>“NIE 11-8/11-61: Strength and Deployment of Soviet Long-Range Ballistic Missile Forces,” Steury, ed., *Intentions and Capabilities*.

their intended effect of keeping the United States in a state of perpetual anxiety. Corona had, for all intents and purposes, ushered in the end of that era. A window had been opened on the opaque threat. Soviet overstatements about producing ICBMs “like sausages” would no longer manipulate U.S. anxiety levels. On threat cognizance grounds alone, space reconnaissance had permitted the national security community to exhale with relief for the first time since 1945.

As anticipated in NSC-68, the U.S. policy community could not employ such a breakthrough as an exclusive tool of threat assessment. It was true that reliable, unilaterally controlled means of intelligence collection had altered the strategic landscape. It was also true that such transparency had diminished the unilateral risk of an open society negotiating with a militant, hostile, strategically closed adversary. Before the emergence of space reconnaissance the United States did not even know enough about the balance of power to specify the *content* of negotiations. But within a few short years of Discoverer 14, American Strategic Arms Limitation Talks (SALT) negotiators would specify *both sides’* force levels to Soviet counterparts who remained silent on the matter. This was necessary both because the USSR had no intention of sharing such information and because the Soviet representations of their own force levels would have meant little. Red Army officials on the Soviet delegation would protest privately to their U.S. counterparts, in fact, for revealing *too much* information about Soviet forces in the presence of their civilian counterparts.

Beyond verification, space reconnaissance had defined the limits and possibilities of arms control’s very substance. Thus, SALT I would equate ICBMs with *silos* and Submarine-Launched Ballistic Missiles (SLBMs) with *tubes* on ballistic missile submarines. Nor were these definitions based on the threat implications of these components. The relationship between “weapons,” in threat assessment terms, and “units of account,” in arms control terms, would be asserted based on what could be seen and counted by “national technical

means” (NTM). Thus, the ABM Treaty would limit only *deployed* interceptors and launchers. The fact that large phased array radars (LPARs) were operationally essential long lead-time components of an ABM system, though helpful in threat assessment terms, was an afterthought in arms control terms.<sup>13</sup>

Although space sensors would prove at least as valuable in practice as in theory from a threat cognizance standpoint, the same cannot be said about their contributions to verification. This is not because the product is more informative for the former than for the latter, but because observation is not the same as detection and monitoring is not the same as verifying. Overhead sensors can observe and monitor, but only policy makers can reach the

**only policy makers can reach the political judgments required to detect and verify**

political judgments required to detect and verify. Although enhanced threat awareness would certainly strengthen U.S. confidence in arms control, none of the subsequent Cold War compliance controversies would have been better informed by better monitoring. To say that space reconnaissance “enabled”

arms control is therefore an understatement, but the reasons for this go well beyond just its role in verification.

The first actual application of space-based NTM to arms control verification was the 1963 Limited Test

---

<sup>13</sup>President Johnson approved formal instructions to the U.S. SALT delegation calling for an offensive and defensive “freeze” to be presented as a single comprehensive entity. The instructions were “drawn up on the assumption that in each instance we could agree to exclusive reliance on national means of verification.” The ABM portion of the proposal would address ABM interceptors and launchers, but *not* radars. See Memorandum from the President’s Special Assistant (Rostow) to President Johnson, 29 August 1968. Document 277. Johnson collection, Department of State Website. Tab B to this document, “Strategic Missile Talks Basic Position Paper” instructs the SALT delegation.

Ban Treaty, which relied on Vela satellites’ infrared detection technology to identify atmospheric nuclear events. But reliance on space-based reconnaissance for verification also began in earnest just a few years after the first successful Corona launch. In what looked at the time like another in a series of innocuous U.S. proposals, Lyndon Johnson proposed “five major types of potential agreement” in a 1964 address to the Eighteen Nation Disarmament Committee. One of these would “endeavor to agree to explore a verified freeze of the number and characteristics of strategic nuclear offensive and defensive vehicles.”<sup>14</sup> Arriving alongside Secretary of Defense McNamara’s mutual vulnerability doctrine, the proposal would quickly acquire traction. Within six months there would be open discussion within the administration of using intelligence to *support* verification. Soon a consensus would form by which intelligence might be enough by itself to evaluate Soviet declarations of existing launchers.<sup>15</sup> By the end of 1964 the NSC would be actively contemplating a freeze on ICBM, SLBM, and ABM launchers verified *exclusively* “by our respective national capabilities...”<sup>16</sup>

The State Department would have embraced this idea under almost any conditions, but with McNamara’s Pentagon on board it would gain momentum quickly. The only holdout among relevant Executive Branch agencies would be the

---

<sup>14</sup>Message from President Johnson to the Eighteen Nation Disarmament Committee, 21 January 1964, *Documents on Disarmament, 1964* (Washington, D.C., Arms Control and Disarmament Agency), p. 8.

<sup>15</sup>Memorandum of Conversation, 16 June 1964, Subject: Verification of Freeze ... Discussed by the Committee of Principals. Document 36, Johnson collection, Department of State Website.

<sup>16</sup>Memorandum from the Ambassador at Large (Thompson) to the Acting Director of the Arms Control and Disarmament Agency (Fisher), 28 November 1964. Subject: ACDA’s Six-Point Suggested Program to Prevent Nuclear Proliferation. Document 52, Johnson collection, Department of State Website. Note: Document’s accompanying reference material includes a 23 November 1964 Memorandum from ACDA Director Foster to the Committee of Principals outlining “a renewed and broadly based effort to prevent nuclear proliferation.” The fourth of Foster’s six proposals is referenced here.

Joint Chiefs of Staff (JCS), which “held that any arms control agreement should provide for adequate verification other than by complete reliance on unilateral intelligence.”<sup>17</sup> But the JCS had grown accustomed to being overruled by McNamara on more pressing issues – such as conduct of war in Vietnam – and less than a week after this statement the State Department would signal to Soviet leaders that

The US would be prepared to discuss the possibilities of placing maximum reliance on unilateral means of verification to meet the major objectives of ceasing further deployment of new missile and anti-missile launch facilities without requiring inspection on either party’s territory.<sup>18</sup>

Weeks later, President Johnson would lay groundwork for public acceptance of this approach with seemingly offhand remarks to a group of educators in Nashville:

We’ve spent \$35-40 billion on the space program, and if nothing else had come out of it except the knowledge we’ve gained from space photography, it would be worth ten times what the whole program cost. Because tonight we know how many missiles the enemy has and, it turned out, our guesses were way off. We were doing things we didn’t need to do. We were building things we didn’t need to build. We were harboring fears we didn’t need to harbor.<sup>19</sup>

By the end of 1967, the IC itself would confirm “very substantial, though of course not unlimited,

capabilities for unilateral verification of measures along lines now being considered for a strategic launcher freeze.”<sup>20</sup> Before leaving office in January 1969 the Johnson Administration had solidly coalesced behind a proposal for a unilaterally verified freeze on offensive and defensive launchers – a going-in position that did not even include ABM radars.<sup>21</sup> The Administration had even agreed to refer to overhead reconnaissance systems as *national* (rather than unilateral or external) technical means of verification.<sup>22</sup> On these grounds the Soviet Government would agree to a 30 September venue at which the United States would have tabled this proposal if the August 1968 Soviet Czechoslovakian

---

<sup>20</sup>From a reference to Special NIE 11-10-67 in Telegram From Department of State to Embassy in the Soviet Union, 15 February 1967. Document 181, Johnson collection, Department of State Website.

<sup>21</sup>Comments recorded at a Principals Meeting on 22 August 1968 confirm this point. In the course of discussions on how to ban Soviet upgrade of the Tallinn air defense system, for example, Secretary of State Rusk pointed out that, “at the JCS’ recommendation, we were not limiting radars.” Responding to a comment that the Tallinn system was of little value without new radars, Navy Secretary Nitze “agreed, but said we were not stopping radars.” See Record of Meeting of the Executive Committee of the Committee of Principals, ACDA-3024, Document 275, Johnson collection, Department of State Website.

<sup>22</sup>Dialogue at the 22 August 1968 Principals Committee meeting referenced above: “[National Security Advisor Walt] Rostow suggested that a word be picked, and then the delegation establish a legislative record in the talks with the Soviets on the meaning of the word, including reference to observations from satellites. [Acting ACDA Director] Mr. Foster pointed out that the Soviets might object to any formal understanding on this point, although they had already agreed tacitly. Mr. Rostow thought that in this critical case it might be desirable to get a formal understanding. Secretary Clifford stated a preference for either ‘unilateral’ or ‘national’ over the word ‘external,’ which had been agreed upon at the last meeting. *Secretary Rusk said he was quite willing to return to the term ‘national’ and that it might be useful to have an explanation of the meaning of the term...* Summary of Actions 1: It was agreed that hereafter the term ‘national’ means of verification would be used in place of ‘unilateral’ or ‘external.’”

---

<sup>17</sup>Memorandum from the Joint Chiefs of Staff to Secretary of Defense McNamara, JCSM-30-67; 19 January 1967. Subject: Questions Relating to a Possible Freeze Agreement on Strategic Forces. Document 176 Johnson collection, Department of State Website.

<sup>18</sup>Telegram from Department of State to the Embassy in the Soviet Union, 22 January 1967. Document 179 Johnson collection, Department of State Website.

<sup>19</sup>“Satellite Spying Cited by Johnson,” *New York Times*, 17 March 1967.



intervention had not put the entire process on hold.<sup>23</sup> With this groundwork in place the Nixon Administration would take office in 1969 and complete negotiation of the Interim Offensive Agreement and the ABM Treaty.

### *Arms Control’s Contributions to Space Control*

At least initially, the Soviets would object vociferously to the proposition of uncontested U.S. reconnaissance over their national territory. Within days of the first successful Corona launch, a Soviet journalist would correctly name the highly classified Corona, Samos, and Midas programs, labeling them “illegal espionage satellites.” Such “American plans of space espionage [were] incompatible with the generally recognized principles and rules of international law,” and the USSR had “everything necessary to paralyze U.S. military espionage both in the air and in outer space.”<sup>24</sup>

By now, of course, the United States was accustomed to such overstatements from the Khrushchev regime and confident that its Corona satellites were deployed in orbits beyond the reach of Soviet denial capability, at least for the time being – a *fait accompli* that significantly multiplied their strategic value. Still, for the Soviets to challenge the satellites’ compatibility with “generally recognized principles and rules of international law” was hard to ignore. An American U-2 pilot captured in 1960 had gone on trial in Moscow on 18 August – the very day of the first Corona capsule’s recovery. Publicly humbled by the downing of a *prima fascia* American spy plane, Eisenhower would be hard pressed to explain the legal distinction between endo- and exo-atmospheric intrusions to the American public. Even if the Soviets could not currently intercept the Discoverer series’ elliptical

polar flight path, their assertion of the right to do so framed the issue in terms more dependent on technology and orbital dynamics than on the legality of overflight.

Eisenhower’s emphasis on secrecy, civil space missions, and “peaceful use of space” diplomacy, would be driven in large measure by these unresolved legal questions until the Soviets launched their own reconnaissance satellite on 26 April 1962.<sup>25</sup> Legal tensions diminished a bit further in 1963 when a UN Resolution set forth the basic components of international space law.<sup>26</sup> The 1972 Interim Offensive Agreement and ABM Treaty – SALT I – would then apply these legalities to NTM providing that:

1. For the purpose of providing assurance of compliance with the provisions of this Treaty, each Party shall use national technical means of verification at its disposal in a manner consistent with the generally recognized principles of international law.
2. Each Party undertakes not to interfere with the national technical means of verification of the other Party operating in accordance with paragraph 1 of this Article.

---

<sup>25</sup>The Zenit vehicle – called “Cosmos 4” for cover – would be placed on orbit with the same R-7 booster and Vostok capsule that carried Yuri Gagarin to space 12 July 1961. Its four-day mission would deliver 10-15 meter resolutions. Burrows, “Imaging Space Reconnaissance Operations during the Cold War,” p. 12.

<sup>26</sup>Resolution 1962 (XVIII), *Declaration of Legal Principles Governing the Activities of States in the Exploration and Uses of Outer Space*. This Resolution would serve as a precursor to 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: Signed at Washington, London, Moscow, 27 January 1967, Ratification advised by U.S. Senate 25 April 1967, Ratified by U.S. President 24 May 1967). The latter Treaty provided that space exploration be carried out for the benefit of all countries irrespective of their degree of development, and sought to maintain outer space as the province of all mankind free for exploration and use by all States and not subject to national appropriation.

---

<sup>23</sup>Lyndon Baines Johnson, *The Vantage Point: Perspectives of the Presidency, 1963-1969* (New York: Holt, Rinehart and Winston, 1971), pp. 487-489.

<sup>24</sup>The article was written by Grigori Zhukov in *International Affairs*. See James Oberg, “The First Soviet Spy Satellite,” *Air Force Magazine*, Jul 1995, p. 82 cited by Burrows, “Imaging Space Reconnaissance Operations during the Cold War,” p.8.

3. Each Party undertakes not to use deliberate concealment measures which impede verification by national technical means of compliance with the provisions of this Treaty.<sup>27</sup>

After space reconnaissance had enabled arms control, it would be pleasantly symmetrical to say that these arms control provisions, in turn, facilitated the free utilization of outer space. While outer space assets arguably acquired a measure of increased legitimacy, however, the reality is less dramatic. The USSR had no choice but to live with intrusive space reconnaissance in 1972 and as their technology matured over the next few years these agreements would not stand in the way of weapons that *could* negate U.S. assets. But if this article's purpose were to challenge the enforceability of international law, it would begin not by questioning arms control's "legalization of NTM," but with prior questions about whether national security can be achieved through negotiation at all. In fact international law *does* serve purposes dismissed by critics, and *is* burdened by enforcement problems obscured by proponents. Because treaty law involves a complex array of legal, diplomatic, and political technicalities, its specialists tend to be treaty proponents who embellish the "mutually reinforcing partnership" between "monitoring" for arms control, and "intelligence" for threat assessment. This is an

**international law  
does serve purposes  
dismissed by critics,  
and is burdened by  
enforcement  
problems obscured  
by proponents**

important point, however, because if treaties can enhance the security of U.S. assets in space, then space control strategists ought to be their strongest supporters.

Let us grant that, given a choice between obscurity and clarity, it is better from a strategic standpoint if U.S. space assets are viewed as clearly legitimate. Additionally, let us stipulate that arms control's "NTM" euphemism includes spy satellites and other technical collection assets. Using the NTM language of the ABM Treaty as a baseline, real world cases still permit the following fundamental generalizations:

- These provisions' stated purpose was to provide "assurance of compliance with the provisions of *this Treaty*," not to sanction NTM's observation of *non*compliance, or of activities not explicitly addressed in the treaty.
- Interference with NTM was prohibited, but only when NTM was "providing assurance of compliance with the provisions of this Treaty."
- The only *deliberate concealment* prohibited was that which would "impede verification of compliance with the provisions of this Treaty."
- The provisions never specified what NTM encompassed, indicated how the parties could distinguish between use of NTM for verification and other intelligence activities, or addressed what could be done *legally* if the offended party determined that activities were not NTM verification.

Before these provisions were agreed to in 1972, of course, there were far fewer grounds on which to call space based collection assets legal. Indeed, when the U-2 was shot down over Soviet territory in 1960, the first U.S. reaction was to publicly deny that it was a spy plane, and Soviet proof to the contrary was a major diplomatic embarrassment. Still, for arms control proponents to say that these agreements legalized space based intelligence

---

<sup>27</sup>Article XII, [Treaty Between The United States Of America And The Union Of Soviet Socialist Republics On The Limitation Of Anti-Ballistic Missile Systems](#) (ABM Treaty), Signed at Moscow 26 May 1972, Ratification advised by U.S. Senate 3 August 1972, Ratified by U.S. President 30 September 1972. Identical language used in Article V, [Interim Agreement between the United States of America and the Union of Soviet Socialist Republics on Certain Measures with Respect to the Limitation of Strategic Offensive Arms](#) – an Executive Agreement signed in Moscow 26 May 1972.

collection – even as it related strictly to arms control – was overstated and self-promotional. To illustrate, consider the case histories of two relatively insignificant real world U.S. compliance issues of the mid-1970s:<sup>28</sup>

- In 1974, the United States observed a substantial increase in the concealment of Soviet strategic weapons programs. Though presumably foreclosed by SALT I’s non-concealment provisions, a charge of violation would have required proof that “these measures prevented *verification of compliance with agreed provisions*.” Rather than facing that obstacle, U.S. policy makers dropped the issue altogether noting that “there no longer appeared to be an expanding pattern of concealment activities associated with strategic weapons programs.”
- In 1975, the United States analyzed Soviet actions alleged to have “blinded” U.S. reconnaissance satellites – a practice seemingly foreclosed by SALT I’s noninterference provisions. This too was deemed compliant on grounds that U.S. monitoring capability *related to the agreement’s provisions* “had not been affected by these events.”

Beyond the questionable security afforded U.S. space assets by arms control measures, the treaties that refer to NTM are bilateral ones between the United States and USSR. At least a dozen states, many of whom are openly hostile to U.S. interests, are now capable of accessing outer space. In this context it is worth recalling that the *multilateral* Comprehensive Test Ban Treaty (CTBT) – for which U.S. Senate advice and consent was denied in 1999 – relied not on *national* technical means but on an *internationally* controlled seismic network. Indeed, a number of states, led by China, resisted

provisions that would sanction national intelligence sources.<sup>29</sup> As China’s representative put it:

On the issue of national technical means (NTM), China had consistently opposed in the past two years and more the concept of allowing NTMs to play a role in the CTBT verification regime, particularly in triggering of on-site inspections.<sup>30</sup>

Eventually, in what it described as “a major concession,” China would grant allowance for “purely technical NTMs to play a supplementary role.” Thus, inspection requests could appeal to NTM only if they specified “all data upon which the request is based” thereby exposing sources and methods of collection. Even then, the political decision to act on such a request would rely exclusively on international data.

The fact that space assets have been in common use by a variety of states for four decades probably earns

---

<sup>29</sup>The question at hand was whether NTM could be used to trigger complex provisions related to on-site inspections (OSI) of suspect activities. A demand for inspection (which would be tightly managed by the suspected state) required 31 votes on the 50-member CTBT Executive Committee. Paragraphs 5, Section A, of Article IV of the CTBT specifies a monitoring regime consisting of international seismic stations, consultations, on-site inspections (OSI), and confidence-building measures. But Paragraph 6 allows that “no State Party *shall be precluded from*” using NTM. The Administration’s Article-by-Article Analysis acknowledges that “During the negotiations, some states argued that NTM should not be an authorized method for verifying Treaty compliance...” but that paragraph 37 of Section D of Article IV allows OSI requests based on NTM. Paragraph 37 of Section D of Article IV allows use of NTM in OSI requests, which must contain “information pursuant to Part II, paragraph 41 of the Protocol.” Paragraph 41 of the Protocol, Part II, provides that OSI requests must include geographical and vertical coordinates of the location of the event, boundaries of the area to be inspected, . . . the time of the event that triggered the request, and all data upon which the request is based.

<sup>30</sup>Statement by H. E. Mr. Sha Zukang, Ambassador of the People’s Republic of China for Disarmament Affairs, Head of the Chinese Delegation to the Conference on Disarmament, at the Plenary Meeting of the CD, 1 August 1996. Transcript from PRC Permanent Mission at Geneva.

---

<sup>28</sup>U.S. Department of State, Bureau of Public Affairs; July 1979; *Special Report No.55; Compliance with SALT I Agreements*. Emphases added.

them more legal stature than they can acquire through formal law. But in the final analysis, with or without law, the assets we call “NTM” are operated by intelligence services for clandestine espionage purposes. Their effectiveness is enhanced not by the genuineness of the other side’s approval, but by the other side’s ignorance of when and how they are operating. Most states will do all they can to disallow espionage intrusions at times and places of a curious observer’s choosing. Decisions of whether or not to negate such intrusions may be affected by extant international standards, but, as shown, those standards are conditional. The same qualifiers that limit well-intended noninterference and non-concealment provisions will apply, at the offended state’s discretion, to choices of whether to negate any intelligence collection activities it regards as offensive.

Clearly then, arms control’s NTM provisions apply not to overhead technical collection in general, but to its narrowly limited use in support of specific arms control provisions, and primarily in a bilateral context. In other words, arms control has advanced the interests of – at most – arms control. Proponents are thereby equipped to defend a treaty’s verifiability on grounds that intelligence garnered therefrom will be “admissible.” But the record demonstrates that how behaviors are categorized, what standards of evidence will apply, and the nature of proof itself are all political issues. Thus, even to the extent that it relates to arms control, NTM legalization contributes little or nothing to U.S. freedom of action in outer space.

Beyond arms control’s limited *positive* contributions to U.S. freedom of action in outer space, several of its provisions simply foreclose U.S. strategic options. Some – like the Outer Space Treaty’s

prohibition of weapons of mass destruction on orbit – impede no strategic options of immediate interest to the United States. Others – like the ABM Treaty’s prohibition of U.S. territorial defense, or “a base for such a defense” against ballistic missiles – have been of more immediate concern.<sup>31</sup> Although the treaty permitted limited ABM testing, the United States explicitly agreed in 1972 “*not to develop, test, or deploy ABM systems or components which are ...space-based....*”<sup>32</sup> That provision outlawed specific, vitally important U.S. options for the strategic exploitation of outer space. In the real world, a broader *extra-legal* ABM Treaty regime featured a plethora of self-imposed political restrictions that limited U.S. freedom of action far beyond the treaty’s explicit terms.

One example of a self-imposed constraint on U.S. space exploitation involves the “broad interpretation” debate over the ABM Treaty’s testing restrictions. The issue first arose in 1985 when the Defense Department realized that for all of its restrictions on research and development the treaty had left open the door to testing space-based ballistic missile defense (BMD) components that employed “other physical principles.”<sup>33</sup> At DOD’s request, State Department Legal Affairs Advisor Abraham Sofer had analyzed the treaty language, intent, and negotiating record, and ruled that such latitude had been left in the treaty – at Soviet insistence despite U.S. efforts to restrict future technologies.<sup>34</sup> Had the Soviets exercised these

---

<sup>31</sup>Article 1, ABM Treaty.

<sup>32</sup>Article V, ABM Treaty. Emphasis added

<sup>33</sup>Refers to the ABM Treaty’s Agreed Statement D: “In order to insure fulfillment of the obligation not to deploy ABM systems and their components except as provided in Article III of the Treaty, the Parties agree that in the event ABM systems based on *other physical principles* and including components capable of substituting for ABM interceptor missiles, ABM launchers, or ABM radars are created in the future, specific limitations on such systems and their components would be subject to discussion in accordance with Article XIII and agreement in accordance with Article XIV of the Treaty.” Emphasis added.

<sup>34</sup>The initial study was conducted by former New York assistant district attorney Philip Kunsberg at the request of Undersecretary of Defense Fred Iklé and Assistant

rights themselves, in other words, the U.S. compliance adjudication machinery would almost certainly have ruled it permissible. After National Security Advisor Robert McFarlane aired this interpretation in a televised news interview on 6 October 1985,<sup>35</sup> news reports described a contentious high-level interagency conflict over the issue.

While legal experts in the State, Defense and Justice Departments had accepted the Pentagon interpretation even before McFarlane spoke, U.S. diplomats and [North Atlantic Treaty Organization] NATO allies were appalled. They protested that the Administration position, coming only weeks before next month's Geneva summit meeting between Reagan and Soviet Leader Mikhail Gorbachev, would doom any chance for negotiating an arms-control agreement. [Secretary of State George] Shultz suggested to the White House that if McFarlane were making policy for so sensitive a matter on television, then Reagan would seem to have no need for a Secretary of State. Reagan convened a White House meeting... described by Administration sources as "acrimonious."<sup>36</sup>

Despite his own legal advisor's counsel, Shultz publicly challenged McFarlane's reading on three grounds having nothing to do with treaty provisions.<sup>37</sup> First was "the outrageous way this matter had been handled procedurally, which

---

Secretary of Defense Richard Perle. There was no doubt, according to Kunsberg's report, that the U.S. had sought a tight ban on "exotic" future ABM systems except those in fixed land-based mode, but that the Soviets had consistently rejected the broad ban advocated by the United States. See Don Oberdorfer, "ABM Reinterpretation: A Quick Study," *Washington Post*, 22 October 1985, A-1.

<sup>35</sup>Interview with National Security Advisor Robert C. McFarlane, *Meet the Press*, NBC-TV, 6 October 1985.

<sup>36</sup>"Resolving a Star Wars Skirmish," *Time*, 28 October 1985.

<sup>37</sup>George P. Shultz, *Turmoil and Triumph; My Years as Secretary of State* (New York: Charles Scribner's Sons, 1993), pp. 580-1.

amounted to a usurpation of presidential authority." Second was Shultz' view that it "was not the traditional position of the United States or the position of our allies; ...and it was certainly at odds with the current Soviet view." While one might question the relevance of these arguments, they were political judgments well within the purview of a Secretary of State. The third premise of Shultz' opposition, however, was factually incorrect. Shultz believed that because Reagan's Strategic Defense Initiative (SDI) "was a *research* program... we could address the questions that we needed to answer *within* the confines of the ABM Treaty." In truth, the "broad interpretation" would have vastly expanded the United States right to test space-based technologies most in need of testing. But Shultz convinced himself that adherence to the traditional "narrow" interpretation "would give us the best of both worlds."

We would be able to *research* the key questions of strategic defense. We would also have *something to fall back on and to bargain with* by "clarifying" the treaty. So all this flurry of concern could be made to be useful to us.<sup>38</sup>

Since SDI space components did not require testing by this State Department logic, the unarguably legal U.S. right to do so could be traded for the State Department's more immediate diplomatic interests. Speaking to a NATO audience one week after

---

<sup>38</sup>*Ibid.* p. 581. Emphasis added. The same misunderstanding may have motivated Shultz to welcome, weeks later, a Soviet trial balloon offering offensive reductions in exchange for U.S. agreement not to exercise Treaty withdrawal rights for ten years. "In my view, continued observance by the United States of the ABM Treaty while offensive reductions took place would work to our advantage: the *prospect* of SDI would keep the reductions coming, and SDI would still be moving along." Congress had required Reagan and Weinberger to certify that the SDI program would be conducted in compliance with the ABM Treaty. The notion that Shultz interpreted this *political* assurance as a literal statement of programmatic adequacy, whereby the Treaty was less than a showstopper for SDI's development program is, frankly, shocking.

McFarlane's comments, Shultz would eagerly claim victory in this bureaucratic battle:

It is our view, based on a careful analysis of the treaty text and the negotiating record, that *a broader interpretation of our authority is fully justified*. This is, however, *a moot point*; our SDI research program has been structured and, as the President has reaffirmed last Friday, will continue to be conducted in accordance with a restrictive interpretation of the treaty's obligations. Furthermore, any SDI deployment would be the subject of consultations with our allies and to [sic] discussion and negotiation, as appropriate, with the Soviets in accordance with the terms of the ABM Treaty.<sup>39</sup>

Shultz had apparently convinced the President to adopt space-testing restrictions that were dictated, if at all, by his reading of the "spirit" of the ABM Treaty. In so doing, he unburdened the Soviets of their greatest concern about the SDI program – U.S. pursuit of advanced space based technologies. He had also added consultation with allies and negotiation with the Soviets to the preconditions of a U.S. deployment decision, demanding nothing in return.

Despite the conviction throughout the executive branch that such latitude was legally in place, the United States would never test a BMD component under the broad interpretation of the treaty. A political argument, intensified by internal bureaucratic discord, had been resolved by extra-legal criteria. Instead of expanding U.S. space exploitation rights, McFarlane's ploy had so offended Shultz that it further *restrained* U.S. strategic latitude. Meanwhile, in the Defense and Space Talks (DST), where the two sides deliberated such matters from 1985 to 1992, the Soviets would

---

<sup>39</sup>Shultz, "Arms Control, Strategic Stability, and Global Security," Address before the North Atlantic Assembly, San Francisco, 14 October 1985, Department of State *Bulletin*, December 1985, pp. 20-25. Emphasis added. Shultz' citation of remarks by the President served as the public record of Reagan's judgment.

seek not just to ban research, development, and testing of "space strike arms," but also to confine all other R&D to "the laboratory" – which would proscribe the testing of even *ground based* ABM components.

Soviet insistence that these restrictions must precede a START agreement would outlive Ronald Reagan's Presidency. Congress would then codify these political restrictions in the Missile Defense Act (MDA) of 1991 which foreclosed a space layer of ballistic missile defense, required Soviet approval of essential non-space components, constrained deployable technologies, discouraged R&D funding for technologies that could not be legally deployed, and unilaterally exorcised SDI's global implications.

President Reagan had vetoed 1989 legislation precisely because Congress had refused to authorize his space interceptor program. But in September 1991 President Bush signaled the end of SDI's space component by signing the 1991 MDA into law. As soon as Bush agreed to the START Treaty on these grounds the Soviets vacated all discussion of treaty revisions. Two years later Congress was informed:

It is the position of the Clinton Administration that the "narrow" or "traditional" interpretation of the ABM Treaty is the *correct* interpretation and, therefore, that the ABM Treaty prohibits the development, testing, and deployment of sea-based, air-based, space-based, or mobile land based ABM systems and components without regard to technology utilized.<sup>40</sup>

To further clarify its position the Clinton Administration renamed the *Strategic* Defense Initiative Organization (SDIO) as the Ballistic Missile Defense Organization (BMDO). While crediting SDI for helping to end the Cold War, Secretary of Defense Les Aspin proclaimed "the end

---

<sup>40</sup>White House Press Release, 13 July 1993. Emphasis added.

of the SDI decade.<sup>41</sup> In 1996 Clinton would veto funding for the military space plane, the kinetic anti-satellite (ASAT) program, and the Clementine II asteroid probe, which simulated interception of ballistic missiles in space.<sup>42</sup> In 1997, he signed agreements extending ABM Treaty restrictions on *strategic* space exploitation to a prohibition on "interceptors capable of intercepting *theater* missiles from air or space."<sup>43</sup>

In short, although space technology and U.S. arms control policy have shared an intimate relationship since both came of age in the 1960s, the benefits of that relationship have gone exclusively in the direction of arms control. That substantive agreements could be negotiated at all was attributable to satellites' contributions to threat measurement. That such agreements could be called verifiable was attributable to space assets' monitoring precision. But beyond failure to promote the security of satellites, arms control has imposed binding legal and political restrictions on U.S. space options with debilitating strategic implications. The question to be answered is whether that outcome could be reversed by diligent application of diplomacy to the twenty-first century strategic requirement for U.S. space control.

### ***The Political Framework for Space Control***

Wars and their component battles are won by those who control the environment within which they are fought. This is not a novel concept. Battle zone control includes the governance of access and egress by people, supplies, and equipment. Allied ground forces could seize and hold territory in Iraq and Afghanistan because the United States controlled the air above them and the sea around them. Air and

sea control are preconditions of terrestrial control, which settles conflicts. From an operational military standpoint "control" of outer space is no more or less essential than control of other dimensions of the battlespace environment.

This is offered not as a primer on the operational art, but as a starting point for discussion of space control in its proper context. The lay public understands control as it relates to terrestrial, atmospheric, and maritime lines of communication, but is less familiar with the extension of these principles to outer space. Exotic *images* associated with space control, however illusory, are not lost on its detractors. It does not mean ownership, sovereignty, occupation, expropriation, perpetual domination, flags planted, governance transferred, or access permanently denied. It simply recognizes that the United States can permit neither the uncontested vulnerability of its own space assets nor the multiplied effectiveness of an enemy that uses commercial space services or employs its own satellites on orbit.

It is nontrivial in this regard that all of the bureaucratic arguments over atmospheric, maritime, and terrestrial control are long settled. For the Navy this occurred in the 19<sup>th</sup> century. Thousands of American merchant ships had been attacked before the Navy's West India Squadron was equipped to crush piracy in the Caribbean Sea and the Gulf of Mexico. It took George Washington two full terms to get Congress to fund six-ships to protect U.S. commerce from the Algerine Corsairs. For the Air Force it was twelve decades later when the extension of military capability to the air required a public lobbying campaign for which General Billy Mitchell was court-martialed. Because the bureaucratic bloodletting over means of control in these realms is over, strategists need only establish the functional identity of space control with air, sea, and land control.

Because political consensus on controversial topics is measured in bipartisan terms, it is useful to note that in 1996 the Clinton White House assigned DOD responsibility for "detering, warning, and if necessary, defending against enemy attack; assuring

---

<sup>41</sup>Donald R. Baucom, Historian, BMDO, "Ballistic Missile Defense: A Brief History," 1997.

<sup>42</sup>Peter L. Hays, James M. Smith, Alan R. Van Tassel, and Guy M. Walsh, "Spacepower for a New Millennium: Examining U.S. Capabilities and Policies," in Hays et al., eds., *Spacepower for a New Millennium: Space and U.S. National Security* (New York: McGraw-Hill, 2000), p. 27.

<sup>43</sup>Testimony of David J. Smith, Committee on Foreign Relations, U.S. Senate, 13 May 1999.

that hostile forces cannot prevent our own use of space; [and] countering, if necessary, space systems and services used for hostile purposes.<sup>44</sup> A few years later Clinton's Secretary of Defense implemented this guidance in a Space Policy Directive that should resolve once and for all that space is a medium in which the United States must prepare itself for the conduct of military activity.

It is DOD policy that space capabilities shall be operated and employed to: assure access to and use of space; deter and, if necessary, defend against hostile actions; ensure that hostile forces cannot prevent United States use of space; ensure the United States' ability to conduct military and intelligence space and space-related activities; enhance the operational effectiveness of U.S., allied, and friendly forces; and counter, when directed, space systems and services used for hostile purposes.<sup>45</sup>

This language clearly stopped short of Ronald Reagan's 1988 policy directing DOD to "develop and deploy a robust and comprehensive ASAT capability with initial operational capability at the earliest possible date."<sup>46</sup> But for Presidents Clinton and Reagan to agree even in *principle* shows how far we have come toward a national consensus on space control.

Because it imposed far more restrictions than its original proponents ever imagined, the U.S. decision of December 2001 to withdraw from the ABM Treaty under its Article XV provisions removed an enormous obstacle to a responsible space strategy. Besides its legal, political, and self-imposed restrictions on space control, the treaty's outright prohibition of defense against attacking missiles added psychological and intellectual obstacles. As

the debate over missile defense intensified in the 1980s and 1990s it became increasingly partisan with anything remotely related to military use of space caught in the crossfire. As illustrated by the State Department's handling of the broad interpretation, for example, the United States imposed strategically significant restrictions on itself based on how the Soviet Union *might* react to policy choices that were unquestionably legal in treaty terms. In that case Secretary George Shultz objected *publicly* to a policy option on grounds that it had not previously been the traditional one. Similarly, Congress prohibited ASAT testing, and President Clinton vetoed an experimental rendezvous with a meteor because both involved target engagement scenarios that *emulated* interception of attacking Soviet missiles.

**the sea  
offers a  
particularly  
apt analogy  
to the outer  
space  
argument**

It was one thing for the United States to comply with the *spirit* of the treaty while the Soviets were routinely exceeding its *letter*. But the seemingly infinite elasticity of what was included in its spirit went beyond good faith by consigning ourselves to a wholly different regime. By its remarkably uncontroversial withdrawal notification of 2001 the United States unburdened itself of all such impediments to the strategic control of outer space.

***The Way Forward on Space Control***

With the bureaucratic and policy foundation in place for a U.S. space control regime, sea control provides an actual *blueprint* for the remainder of space control's political-military edifice. The sea – over which United States control is a joint product of diplomacy and naval operational supremacy – offers a particularly apt analogy to the outer space argument. Oceans, like space, are seen as the common province of nations – a realm in which safe passage and access to resources are fundamental international rights. Just as a ballistic missile might traverse outer space in a crisis, vehicles bearing weapons of mass destruction are routinely on patrol

<sup>44</sup>[Fact Sheet, National Space Policy](#), The White House, National Science and Technology Council, 19 September 1996.

<sup>45</sup>[Department of Defense Directive 3100.10](#), 9 July 1999, Subject: Space Policy.

<sup>46</sup>[White House Fact Sheet, "Presidential Directive on National Space Policy,"](#) 11 February 1988.



throughout the high seas. But the stationing of such weapons is banned from the ocean’s floor just as it is from Earth orbit. No nation can claim jurisdiction over either realm but lawless behavior is condemned in both.

Abhorrent activities like slave trading, drug smuggling, and piracy on the high seas are international crimes, and JCS rules of engagement reflect a U.S. commitment to their enforcement. The Navy’s readiness to carry out protection and denial responsibilities is both cause and effect of these laws’ integrity. This capability has hardly brought an end to crime on the high seas, but it has tamed it enough for commerce, resource access, and marine environmental security to be counted among the basic entitlements of nations. United States leadership has spawned a clear set of collectively accepted international norms for sailors and vessels operating in international and territorial waters. The U.S. Navy has worked in tandem with the State Department to see that sensible operational principles are facilitated rather than impeded as these codes are crafted and refined. The resultant regime defines conditions under which force may and may not be employed under the flags of law-abiding nations. Seafarers who comply with these standards are entitled not just to legal protection, but also to physical protection from vessels positioned to offer assistance in a crisis.

This is how diplomacy and military preparedness can work together rather than against each other to advance vital national interests. New and updated JCS rules of engagement never leave the drafting stage until their compatibility with the standing body of international law can be demonstrated. Working together in support of U.S. sea control, these policies of diplomacy and military preparedness secure vital national interests while advancing rather than inhibiting the rights of weaker seafaring nations. Arms control’s international rules and procedures thereby protect, focus, and magnify the effectiveness of a U.S. military mission, while military preparedness strengthens the effectiveness of law. In combination, they advance a vital national security objective with unparalleled competence.

It would not be necessary to extend this analogy to the requirement for space control if space were the exclusive domain of law-abiding states. But consider the implications of a hermetic, impoverished, diplomatically isolated North Korea developing a three-stage launch vehicle. The United States would surely have shared launch services as readily as it assisted North Korea’s commercial nuclear power program – not out of altruism or to inhibit anyone’s access to space, but out of *self-interest* to inhibit its *hostile* exploitation. North Korea’s leaders would have known this but chose instead to invest in autonomous means. In strategic terms this was altogether logical and predictable. What potential adversary could possibly ignore the enormity of U.S. reliance on outer space assets that are as vulnerable and at least as vital as her 18<sup>th</sup> century merchant ships?

Calls by the U.S. National Command Authority for military readiness “*to counter, when directed, space systems and services used for hostile purposes*” serve notice that no potential adversary can lightly ignore. They call for investment in the means to protect U.S. space assets while holding those of other states at risk, and for legal strategies that go beyond weapons reductions and constraints. In short, they establish criteria against which both policies should be measured, toward which both should orient their creative energies, and in the service of which the whole must exceed the sum of its parts.

As with sea control, much of the legal infrastructure that would underpin space control is already in place. The 1967 Outer Space Treaty<sup>47</sup> assigns the same legal status to “outer space, including the moon and other celestial bodies,” that maritime law assigns to the high seas. This means that the Moon, like the oceans, is immune from ownership or sovereignty claims, and that any nation can go

---

<sup>47</sup>Article I of the Outer Space Treaty: “The exploration and use of outer space, including the moon and other celestial bodies, shall be carried out for the benefit and in the interests of all countries, irrespective of their degree of economic or scientific development, and shall be the province of all mankind.”

there. How would that prevent, say, a techno-terrorist organization from positioning itself on the lunar surface? In legal terms, the answer is that the Outer Space Treaty requires “non-governmental entities in outer space” to be authorized and supervised “by the appropriate State Party to the Treaty.”

This provision has deep roots in maritime legal tradition. Standing sea law affords “free transit” on the high seas only to vessels flying the flag of a recognized authority. The flag tells port authorities, warships, and other vessels which state’s laws will prosecute illegal behavior. It accepts the common province principle, but rejects the proposition that anarchy must therefore reign supreme. It reflects a shared preference that states or other legitimate entities enforce their own laws on their own citizens. Although the law is international, violators are subject to the penalties and protections inherent in the legal codes of the authority behind their flag. By exclusion, violators acting independently relinquish entitlement to such protection. An American taken into custody from an unflagged vessel within another state’s territorial waters, for example, may or may not be afforded the presumption of innocence by the offended state’s courts.

Unflagged vessels can be hailed, boarded, or seized by those equipped and authorized to do so. Vessels bearing the flags of more than one authority are not entitled to the protection of the state behind *any* of their flags. Falsely flagged vessels can be boarded with impunity from a warship of the “true” flag nation. Maritime law thereby achieves one of U.S. diplomacy’s fundamental objectives – protection of the innocent – by facilitating one of the Navy’s fundamental objectives – exposure of the non-innocent. By proscribing illegitimate military action, the law *licenses* legitimate military action. Arms control, in other words, points the way to rules of engagement. Navies cannot act with impunity on the high seas, but neither can criminals. Legitimately flagged ships engaged in illegal behavior are treated as diplomatic rather than military problems. Falsely or unflagged vessels are

treated as military rather than diplomatic problems.

This, of course, is the point at which sea law takes a course that space law is not presently equipped to follow. Violators of space law could be subjected to a variety of enforcement, protection, and penalty systems, including the seizure, imprisonment, impoundment, or punishment of their earthbound elements, and comparable penalties upon returning to Earth. If that system of sanctions is adequate, there is no need for military force *in* space to challenge nefarious actions in progress. But the same could be said of maritime law enforcement, by which logic there would be no need for coast guards and navies. The latter point – as experts on drug smuggling, kidnapping, weapons proliferation, money laundering, immigration, piracy, and slave trading are quick to point out – is absurd. Indeed, the answer to these rhetorical questions is not only obvious from a U.S. standpoint, but widely agreed throughout the international community. Just as the United States welcomed the Royal Navy’s advancement of nineteenth century British security interests in the Atlantic, law-abiding nations today seldom object to a U.S. naval presence in their regional waters.

What if an unflagged vessel anchored a few hundred kilometers from a U.S. coastline were readying itself to fire crude short-range ballistic or cruise missiles? Apart from a sovereign nation’s entitlement to protect itself do we feel safer knowing that the perpetrator could be punished upon return to port? Or are we heartened to know that that the Navy and Coast Guard are trained to hail such a vessel and confirm its intentions *before* it acts? One difficulty with this analogy, of course, is that international standards on the high seas were codified *after* navies became commonplace national instruments. Modern navies, in turn, arose *after* maritime crimes and national security threats became intolerable. In comparison, there have been few direct assaults on national space assets, and the power to prevent or negate such assaults is held by a mere handful of states. And yet, the emergence of international space law is well underway.

Table 1 lists four such instruments to which the United States is party, illustrating the paucity of U.S. enforcement options in comparison with the maritime equivalent of each. In each case the United States has both the means and the explicit authority to enforce international law as it relates to the sea, but neither the means nor the explicit authority to enforce the same provision in space. In the case of each law of outer space, such capability would contribute to U.S. space control in the same measure to which analogous capability contributes to U.S. sea control. And in each case the integrity of the relevant law would be enhanced as a *result* of sanctions implied or exercised by the fact of United States enforcement power.

Table 1 illustrates a less obvious point as well. Laws of the sea, established *after* national naval power became commonplace, were put in place – in part – to limit the exercise of arbitrary authority by powerful navies. As such, they served an arms control function – leveling a playing field under no one’s jurisdiction. The fact that laws of outer space are being put in place *in advance* of routine military force deployments suggests their enactment regardless of whether they are accompanied by in-place enforcement authority. It is not a question of *whether or not* such laws will emerge, but who will write them, who will enforce them, and in whose interest. And at the risk of stating the obvious, it is also a question of what nonexistent means of space control will be foreclosed in the meantime. It is always easier to foreclose future weapons than to eliminate those in being. And, indeed, Table 1 hardly exhausts the list of emerging space legal principles to which the United States is already party. Additional examples include:

- **The Declaration of Legal Principles Governing the Activities of States in the Exploration and Uses of Outer Space**  
Sets forth the basic components of international space law.<sup>48</sup>

---

<sup>48</sup>Precursor to the Outer Space Treaty adopted by the UNGA in 1963.

- **Principles Governing the Use by States of Artificial Earth Satellites for International Direct Television Broadcasting**  
Taking into consideration that such use has international political, economic, social, and cultural implications, provides that a state which intends to establish such a broadcasting service notify receiving states and should establish such a service only on the basis of agreements with those states.<sup>49</sup>
- **The Principle Relating to Remote Sensing of the Earth from Space**  
States that such activities are to be conducted for the benefit of all countries, with respect for the sovereignty of all states and people over their own natural resources and for the rights and interests of other states.<sup>50</sup>
- **The Principles Relevant to the Use of Nuclear Power Sources in Outer Space**  
Recognizes that nuclear power sources are essential for some missions, but should be designed so as to minimize public exposure to radiation in the case of accident.<sup>51</sup>
- **The 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**  
Purpose as stated.<sup>52</sup>

Each instrument of outer space law listed above and in Table 1 was initiated in the United Nations Committee on the Peaceful Use of Outer Space (UNCOPUOS). That body was created in the 1950s at United States urging to highlight the peaceful nature of its space program. In recent years, however, UNCOPUOS deliberations have adopted a discernible logic, grammar, and vocabulary pattern.<sup>53</sup> Prominent among its recurring themes is

---

<sup>49</sup>Adopted in 1982 as UNGA Resolution 37/92.

<sup>50</sup>Adopted in 1986 as UNGA Resolution 41/65.

<sup>51</sup>Adopted in 1992 as UNGA Resolution 47/68.

<sup>52</sup>Adopted in 1996 as UNGA Resolution 51/122.

<sup>53</sup>Examples that follow are drawn from statements by national representatives to the UNCPUOS UNISPACE III Conference, Vienna, Austria, 20 July 1999.

the belief that “peaceful use” of outer space begins with its “demilitarization” – a term of art that brooks no distinction between reconnaissance, meteorology, communications, warning, navigation, ASAT, or battlefield command and control missions. Military use of space, by this logic, is simply anathema to good order. Since properly structured regulatory regimes would presumably be self-enforcing, new weapon concepts quickly acquire rogue status.

TABLE 1 – A Comparison of U.S. Enforcement Protocols for International Sea vs. Space Law					
UN Space Law		Parties <sup>54</sup>	International Sea Law Equivalent <sup>55</sup>	U.S. Law Enforcement Mechanisms	
				At Sea <sup>56</sup>	Space
1967	Outer Space Treaty <sup>57</sup>	122 States including United States	Promotes a legal order to facilitate global communication and promote peaceful use of the seas based on the needs of all mankind – particularly those of developing countries, whether coastal or land-locked.	The “objective territorial principle” recognizes the right of a nation to apply its laws to acts committed beyond its territory which have their effect in that nation’s territory. Extra-territorial drug laws and “hovering vehicles” are legally reached under this principle.	?
1968	Rescue Agreement <sup>58</sup>	110 States including United States	Vessels must assist distressed persons, provide warnings, safe harbor, innocent passage, and respect to sovereign property	Doctrines of collective and individual self-defense and protection of nationals authorize U.S. forces to protect U.S. flag vessels, property, and persons from violent/unlawful acts.	?
1972	Liability Convention <sup>59</sup>	105 States including United States	States must investigate injuries, loss of life, or damage to another state’s property on the high seas caused by a ship flying its flag. Ships unjustifiably stopped outside territorial limits must be compensated.	Except as noted (re liability of warships), “nothing in this [LOS] Convention affects the immunities of warships... operated for non-commercial purposes.”	?
1975	Registration Convention <sup>60</sup>	43 States including United States	States will fix the conditions for the grant of its nationality...for the registration of ships in its territory, and for the right to fly its flag. Ships have the nationality of the state whose flag they are entitled to fly. There must exist a genuine link between the state and the ship. Every state shall issue to ships to which it has granted the right to any its flag documents to that effect	If a ship on the high seas is reasonably suspected of involvement in slave trade, unauthorized broadcasting, piracy, or false flagging, a warship that encounters it may board and verify its flag rights. A warning shot is a signal – usually to warn an offending vessel to stop or maneuver in a particular manner or risk the employment of disabling fire or more severe measures.	?

<sup>54</sup>United Nations Treaties; Status of International Agreements Relating to Activities in Outer Space; States that have signed or ratified as of February 1999.

<sup>55</sup>1958 Geneva Convention on the High Seas; 1974 London Convention on Safety of Life at Sea; 1982 Law of the Seas; Customary International Law.

<sup>56</sup>The U.S. Naval Commander’s Handbook on the Law of Naval Operations; NWP1-14M; FMFM 1-10; COMDTPUB P5800.

<sup>57</sup>Outer Space Treaty.

<sup>58</sup>[Agreement of the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space](#). Provides for aiding crews of spacecraft in accident or emergency landing; establishes a procedure for returning to a launching authority space objects found beyond its territorial limits.

<sup>59</sup>[Convention on International Liability for Damage Caused by Space Objects](#). Establishes launching state’s liability for damage caused by its space objects on the Earth’s surface, to aircraft in flight, and to space objects of other states or persons.

<sup>60</sup>[Convention on Registration of Objects Launched into Outer Space](#). Launching state must maintain registry of space objects and furnish specified data to UN.

Some proponents of this agenda, including the current UN Secretary General, believe the growth of space commerce warrants to a new UN mission of “preventive diplomacy,” which would extend the UN’s role in peacemaking and peacekeeping to arms race prevention and missile warning. A French proposal would equip new UN agencies with satellites, ground stations, and data processing facilities for Earth observation, launch notifications, transparency of military operations, and arms control monitoring. A Chinese Resolution would create a standard format for the acquisition, processing, and handling of remote sensing data in support of developing countries, demilitarize outer space, and equip the UN to manage atmospheric reentry of nuclear power sources.<sup>61</sup> Iran would ban the transmission through space of TV signals that broadcast values contrary to the religious and ethical values of other sovereign states.

Some of these proposals build on the social benefits of third world access to existing assets in space for economic and social development. Others appeal to the commercial benefits of protocols that regularize access to space. Whether on humanitarian, social, or risk management grounds, however, each also promotes restrictions that would intentionally or unintentionally inhibit U.S. space control. Americans tend to regard “the law” as an evenhanded, dispassionately enforced instrument of justice. Although that is hardly its status in places like North Korea and Iran, egalitarian UN principles entitle each member state to an objective hearing on the merits of its case. None of these countries shares the United States sense of urgency for freedom “to conduct military and intelligence space and space-related activities ...and [to] counter, when directed, space systems and services used for hostile purposes.”

---

<sup>61</sup>UNGA Resolution 51/122, “International Cooperation and Use of Outer Space for the Benefit and in the Interest of All States.”

Although it is the hidden agenda behind many of these proposals, some are more blatant than others in opposing U.S. space control. Russia, for example, has employed standard UNCOPUOS language to float a ban on *creation* of “space vehicles capable of destroying missile attack warning space systems.”<sup>62</sup> By focusing on warning assets that everyone considers sacrosanct, this provision would assign rogue status to a hypothetical class of ASAT weapons designed to place them at risk. Since arms control’s verification and confidence building rules cannot tolerate fine distinctions between a weapon’s peaceful or hostile purpose, and since “creation” could only be defined by “observable” testing and development practices, a ban on early warning ASATs would effectively ban *all* ASATs. Ironically, this would include the very *anti-ASAT* weapons required for the Russian proposal’s enforcement, but that would only matter if early warning satellites were the real object of its concern. Instead, having assigned rogue status to a repugnant class of ASAT weapons, Russia has positioned itself to champion physical limits on space control.

In fact, attacks on legitimate sovereign space assets, let alone on early warning satellites, are already acts of war. Some such attacks, *especially* against early warning satellites, would themselves warn of impending terrestrial aggression. To add that these attacks also violate a UNGA Resolution would be redundant at best. In the final analysis, of course, neither existing space laws nor the one proposed by Russia would enshroud satellites of any kind in a blanket of security. Nor, for that matter, would U.S. space control ever permanently eliminate all anxiety on the matter. Neither the United States nor the international community, after all, can finally control all behavior even under well-established political-military regimes governing the high seas.

---

<sup>62</sup>Interview comments by Colonel General Vladimir Yakolev, Supreme Commander of Russia’s Strategic Missile Forces, January 1999, FBIS, Interfax.

But if unsanctioned norms were its only regulator, the law of the sea would be the law of the jungle – a continuous struggle among conflicting interests regulated only by the balance of power.

It may or may not be true that such anarchy exists in outer space today, but how are violators of international space norms deterred, defeated, or punished? If peaceful space use cannot be secured, how can its military abuse be controlled? What distinguishes offensive activities from defensive activities? How does a right to attack no one differ from a right to attack everyone? How are violators denied the benefits of their actions before it is too late?

Nor can it be denied that there are nations who would feign outrage over United States exercise of its space control responsibilities. But since power is made manifest primarily by its use, the same is true of any unexercised sovereign entitlement. What if the United States had never yet deployed carrier battle groups to show force in a tense region? Some governments will be threatened, jealous, or righteously indignant, but most would *expect* the world’s most economically, militarily, and technologically advanced power to structure and enforce rules of the road according to its interests. Those whose ideals comport with ours, no matter how “shocked” they claim to be in public, will welcome it as a commonplace exercise of leadership. There are states throughout the world that would prefer it not be so, but the fact is that the United States operates the world’s only global blue water navy, and that it serves all law-abiding nations by enforcing collectively held standards. To reject such a space regime while welcoming analogous laws of the sea would be an inconsistency few of them could long sustain.

If the United States concurs with sentiments expressed in UNCOPUOS circles, a passive approach to its proceedings will advance U.S. interests.<sup>63</sup> If not, questions arise that are worthy

---

<sup>63</sup>It is worth noting in this regard, that the U.S. representative to the 1999 CPUOS convention took the course of least resistance by stressing aspects of past and current U.S. space policy that are fully compatible with the

of thought while capabilities and procedures for space control are being deliberated. What space asset identifiers might be equivalent to the flagging of vessels at sea? How might legitimate “identify yourself” inquiries be authenticated? How would distinctions between military and civilian spacecraft be affirmed? What recognized standards would signal *intrusions* that violate established rules? What venue might structure a strategically sound international space regime?

Contrary to American ideals, legislation is not necessarily a neutral expression of universally held values and more often reflects trade-offs among conflicting interests. Societal ordering schemes are only purchased by the expenditure of *some* individual liberties – and vice versa. Thus, two fundamental truths are clear regarding the law of outer space. The first is that such laws *will* be made; the second is that they will serve *someone’s* interests. It is not clear what further limitations on its freedom of action in space the United States should accept in order to promote an expanded legal regime that might better serve its national interests. What is more clear and immediate is that the international community, heavily influenced by anti-American interests, is presently deliberating norms that cannot be enforced and would undermine central U.S. interests if they were. If space strategists choose not to engage that challenge – by staying “above it” or denying its existence – the rules will be made by others. And unless we equip ourselves with routinely demonstrated means of enforcement, those rules will be *enforced* by others.

Given United States’ reliance on the military and commercial products of space, the countless ways by which these can be negated, and the ease with which they can be employed for hostile purposes, space control is as challenging as it is essential. Military organizations are familiar with such challenges, but the solution to this one will require

---

organization’s agenda. See Statement by Ambassador John B. Ritch, “[Global Cooperation In The Exploration Of Space: Fusing The UN Idea And Mankind’s Greatest Adventure](#),” UNISPACE III Conference, Vienna, Austria, 20 July 1999.

more than shoulders to the wheel and noses to the grindstone. It is a no-nonsense national security dilemma, whose commercial, economic, and diplomatic dimensions are at least as relevant as its military content. However clear it may be that military and diplomatic instruments of national power must be focused toward a common strategic end, U.S. policy has treated them in *either-or* terms for fifty years. The naval analogy offers the best, perhaps only, exception to this pattern. Now, because arms control will either enable or disable space control, space control strategists must learn to see beyond this tradition and take steps to create enforceable twenty-first century space law. 