

A question of intent: missile defense and the weaponization of space

David Grahame

BASIC Notes, 1 May 2002



British American Security
Information Council

We know from history that every medium—air, land and sea—has seen conflict. Reality indicates that space will be no different. Given this virtual certainty, the U.S. must develop the means both to deter and to defend against hostile acts in and from space. This will require superior space capabilities. – Report of The Commission to Assess United States National Security Space Management and Organization, January 2001. [1]

For a project of such great technical endeavor and cost, the final structure and scope of U.S. missile defense remains remarkably unclear. Members of the Bush administration, keen to calm international concerns, stress the limited nature of initial designs. Paul Wolfowitz, U.S. Deputy Defense Secretary, emphasized, “It is not an effort to build an impenetrable shield around the U.S. This is not Star Wars. We have a much more limited objective to deploy effective defenses against limited missile attack.” [2] However, such statements are undermined by continued U.S. development of advanced space weaponry – in particular, the Space Based Laser (SBL) and space based kinetic kill vehicles – for use in the system. To many these technologies suggest a more expansive aim for missile defense: as a possible means for the United States to weaponize space and achieve dominance of the ultimate military high ground.

International Concerns

The recent 2002 Preparatory Committee of the Nuclear Nonproliferation Treaty (NPT) witnessed the latest show of international unease at the possibility that U.S. missile defense plans could lead inexorably to the weaponization of space. As the Chairman’s Factual Summary noted, “concern was expressed that... the development of missile defense systems, could lead to a new arms race, including in outer space.” [3]

Causing particular anxiety was the anticipated U.S. withdrawal from the 1972 Anti-Ballistic Missile (ABM) Treaty and the deeply damaging effect this would have on the paper-thin international legal regime concerning weapons in space. The Treaty, negotiated between the United States and the Soviet Union, forbids either side from developing, testing or deploying space-based missile defense systems. It also bans “interference” with the other side’s “national technical means of verification” [4] – a euphemistic term for spy satellites. The U.S. withdrawal from this agreement will leave the 1967 Outer Space Treaty (OST) as the only current legal bar on space weaponization. However, while the OST bans the placing of weapons of mass destruction in space, on the moon or other celestial bodies, it has no prohibitions on other weapons systems. As the Russian delegation to the NPT Preparatory Committee starkly concluded, “the withdrawal from the ABM Treaty may bring along such a dangerous development of events as ‘weaponization’ of space.” [5]

This was but the latest restating of long running concerns over the larger implications of the missile defense system. Unease is particularly strong in Russia and China, where many policy makers view Washington’s arguments about the ballistic missile threat from rogue states as a smoke screen intended to conceal U.S. ambitions for space domination. Indeed, in March 2002 at joint Chinese-Russian consultations on strategic stability issues, the two governments lamented the U.S. withdrawal from the ABM Treaty and agreed in response “to step up Russian-Chinese diplomatic collaboration in the UN, at the Conference on Disarmament and other forums, aimed at preventing the placement of strike weapons in outer space.” [6]

International suspicion of the United States has been further heightened by its unwillingness to support efforts to establish a legal regime on the Prevention of an Arms Race in Outer Space (PAROS). Despite overwhelming international backing for the regime, work on it has been stalled in large part due to the objections of the United States, which has argued strenuously that there is no need for a legally binding agreement. It has proved an area of deadlock at the Conference for Disarmament (CD), as the United States stresses other agenda items and argues that it is willing only to discuss, not negotiate,

an agreement banning weapons from outer space. This crippling impasse looks set to continue after John Bolton, U.S. Undersecretary of State for Arms Control and Non-Proliferation, bluntly told the CD that “the current international regime regulating the use of space meets all our purposes. We see no need for new agreements.” [7]

The Inevitability of Weapons in Space?

The possibility of a surprise strike against U.S. assets in space forms a strong element of current U.S. military thinking. With the U.S. military’s reliance on satellites for imaging, intelligence and communications, a possible ‘Pearl Harbor in Space’ could have a crippling effect on the armed forces’ ability to function.

In recent years, a growing number of influential political and military leaders in the United States have addressed these concerns by stressing the need for powerful American deterrence to the potential threat including, if necessary, placing weapons in space. This is a shift away from the traditional U.S. position of employing space for military purposes but stopping short of weaponization due to a belief that the costs – diplomatic, commercial and military – of such a move would outweigh the benefits. The clearest assertion of this new, emerging stance was made by the high-level Commission to Assess United States National Security Space Management and Organization, which was chaired by Donald Rumsfeld prior to his appointment as Secretary of Defense. The Commission’s report, released in Jan. 2001, concluded:

The Commissioners believe the U.S. Government should vigorously pursue the capabilities called for in the National Space Policy to ensure that the President will have the option to deploy weapons in space to deter threats to and, if necessary, defend against attacks on U.S. interests...

In order to extend its deterrence concepts and capabilities to space, the US will require development of new military capabilities for operation to, from, in and through space [8]

A similar position has been advanced by General Ralph Eberhart, United States Air Force, Commander in Chief, North American Aerospace Defense Command & United States Space Command, who argued in congressional testimony that:

It is time to push up the ‘space superiority throttle.’ We have left this throttle at a low power setting for too long. We must ensure our continued access to space, to deny space to others when directed...This is a medium crucial to our American military operations and one we’ll have to fight for in the future. [9]

Increased planning for future conflicts in space is evidence that these statements are not mere rhetoric. The Air Force has established a new Space Operation Directorate, started a Space Warfare School and established the 527th Space Aggressor Squadron and the 76th Space Control Squadron to develop and test U.S. space planning and systems. Meanwhile, major wargames have been run simulating tension and conflict in space. [10]

With such thinking and planning in place, there is a powerful belief within many U.S. policy circles that the weaponization of space is unavoidable. A Washington Post report on an Air Force wargame noted, “Going with the conventional wisdom in the U.S. military, the game assumed that the heavens will be full of weapons by 2017.” [11] Likewise, Pete Teets, Undersecretary of the U.S. Air Force, remarked in March “that weapons will go into space. It’s a question of time.” [12]

With the leadership in the United States thinking so intently about the possible weaponization of space, it is important to consider the clear dual-use potential of some of the advanced systems envisioned as part of missile defense. Indeed, the U.S. military itself has noted that some elements have the potential to be much more than purely defensive tools.

Defense or Offense?

Two programs are of particular worry. The Space Based Laser is being designed to operate in Low Earth Orbit and destroy hostile ballistic missiles during their boost phase of flight. The technology for this weapon is still in the very early stages of development and the program has been beset by delays and difficulties. Nonetheless, there has already been much talk in military circles of the SBL's capabilities outside of missile defense.

In particular, planners have commented on its potential usefulness in allowing force projection from space. During an Jul. 18, 2001 briefing, Colonel William N. McCasland, system program director for the SBL, indicated that the system could enable the U.S. military to "deny access to space", "deny information to/from satellites" and engage in "defensive/offensive counter-air operations." [13] Likewise, General Eberhart noted, "Warfighting CINCs [Commanders in Chief] recognize SBL's inherent capability to support other DoD missions such as air defense, global surveillance, space control and target detection... The mere fact that the United States is developing means to employ force in space may serve as a significant deterrent." [14] Indeed, military planners have even suggested that SBLs could form the replacement for the B-2A Spirit bomber, using directed energy to destroy ground based targets. [15]

The other main space based defense option that the Missile Defense Agency (MDA) is pursuing is kinetic kill vehicles. Once again, these would be intended to destroy enemy ballistic missiles during the boost phase. While the concept for this system is still vague, it may be a reworking of the earlier 'Brilliant Pebbles' project with hundreds, if not thousands, of small satellites deployed around the earth, ready to intercept any enemy ballistic missile launched against the United States. Once again, development is in its earliest stages; however, it seems clear that any such system could easily be altered to offensively threaten the satellite and space networks of other nations.

The MDA is attempting to secure considerable funding for both these programs - \$1.33 billion for space-based kinetic kill vehicles from 2003-2007, \$284.8 million for the SBL over the same period. [16]

Conclusion

The continued development of these space systems seriously undermines the claim that the U.S. missile defense project is purely defensive in nature. Instead, the dual use capability of both the SBL and kinetic kill vehicles makes them inherently threatening to the space assets and national security of other countries. The further the United States pursues these systems, the greater pressure it places on international strategic stability. The possibility of sparking an arms race in space – with seriously detrimental effects on global commerce, communications and security [17] – should not be underestimated.

In addition to the international outcry on space-based weapons, more moderate voices in the United States are beginning to make themselves heard. For example, Senator Tom Daschle, Democratic Majority Leader, launched the following stinging attack:

I think putting weapons in space may be the single dumbest thing I've heard so far from this administration. It would be a disaster for us to put weapons in space of any kind under any circumstances. I think Democrats will be universally opposed to doing something as foolish as that. It only invites other countries to do the same thing and opens up a whole new array of challenges and threats to national security, the likes of which this administration hasn't even begun to think about. [18]

He is strongly supported in this view by Democratic senators Joseph Biden, Chairman of the Senate Foreign Relations Committee, and Carl Levin, Chairman of the Senate Armed Services Committee. Growing legislative unease with space-based weaponry was further illustrated by the fact that Congress, while increasing general funding for missile defense in last year's budget, slashed support for the SBL project by eliminating \$120

million from the president's proposed appropriation of \$170 million. [19]

However, international voices must continue to weigh in on this issue, working with similar forces of opposition within the U.S. policy community. Concerted oversight and scrutiny is necessary to prevent the missile defense project transforming itself from a means of defending the U.S. homeland into a destabilizing and self-defeating attempt to dominate space.

Endnotes

[1] Report of the Commission to Assess United States National Security Space Management and Organization, 11 January 2001.

[2] Prepared Testimony on Ballistic Missile Defense to the Senate Armed Services Committee, Deputy Secretary of Defense Paul Wolfowitz, 12 July 2001.

[3] Chairman's Factual Statement, 2002 Preparatory Committee of the Non Proliferation Treaty (NPT), 18 April 2002.

[4] Treaty between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile Systems, 26 May 1972.

[5] Russian Federation Statement and the 2002 Non Proliferation Treaty (NPT) Preparatory Committee, 8 April 2002.

[6] Russian-Chinese Consultations on Strategic Stability Issues, Daily News Bulletin of the Russian Ministry of Foreign Affairs, 7 March 2002

[7] Statement by John R. Bolton, US Under Secretary of State for Arms Control and International Security, to the Conference on Disarmament, Geneva, 24 January 2002.

[8] Report of the Commission to Assess United States National Security Space Management and Organization, 11 January 2001.

[9] Statement before the United States Senate Armed Services Committee Strategic Subcommittee, General Ralph E. Eberhart, USAF Commander in Chief North American Aerospace Defense Command and United States Space Command, 11 July 2001.

[10] "Space is Playing Field for Newest War Game", Thomas E. Ricks, Washington Post, 29 January 2001.

[11] Ibid.

[12] "Weapons in Space: Silver Bullet or Russian Roulette?", Theresa Hitchens, Center for Defense Information, 18 April 2002.

[13] Ibid.

[14] Statement before the United States Senate Armed Services Committee Strategic Subcommittee, General Ralph E. Eberhart, USAF Commander in Chief North American Aerospace Defense Command and United States Space Command, 11 July 2001.

[15] "Towards an Ideal Weapon? Military and Political Implications of Airborne and space-based Lasers", Paul Rogers, 2001.

[16] "Weaponization of Space Considered", Missile Defense Update, Center for Defense Information, 7 March 2002.

[17] For more information on this see: "Weapons in Space: Silver Bullet or Russian Roulette?", Theresa Hitchens, Center for Defense Information, 18 April 2002; "Breaking the Deadlock on Space Arms Control", James Clay Moltz, Arms Control Today, April 2002.

[18] Statement, Senator Thomas Daschle, 8 May 2002

[19] "Breaking the Deadlock on Space Arms Control", James Clay Moltz, Arms Control Today, April 2002.