

## Weapons in Space

### Background

The U.S. Department of Defense is conducting a little-noticed campaign to develop anti-satellite weapons (ASATs) and weapons based in space. Proponents of this campaign have argued that the protection of American military and civilian satellites necessitates space weapons.

Opponents, however, argue that ASATs and space-based weapons do not protect satellites and that offensive warfare in space will be costly and actually weaken U.S. national security.

On October 6, 2006, the Bush administration released its unclassified version of the U.S. National Space Policy (NSP). The new policy represents a significant shift toward development and use of ASATs and space-based weapons. It more aggressively articulates space war-fighting strategy and rejects any “limits” on U.S. action in space. While the NSP does not mandate ASATs and/or space-based weapons, it does not rule them out.

The NSP follows a number of other military documents that articulate the use of offensive weapons against satellites, even preemptively, and weapons based in space aimed at terrestrial and space-based targets. Furthermore, the Bush policy states that “[t]he United States will oppose the development of new legal regimes or other restrictions that seek to prohibit or limit U.S. access to or use of space. Proposed arms control agreements or restrictions must not impair the rights of the United States to conduct research, development, testing, and operations or other activities in space for U.S. national interests.” (Principles, page 2)

When past proposals to ban space weapons were considered at the United Nations, the United States abstained from voting. However, in October 2005, the United States became the only country to vote against resolutions favoring negotiations to limit the weaponization of space (160 countries voted in favor; Israel abstained).

Currently, the United States has the ability to take out a satellite with a missile (which would create vast amounts of dangerous space debris) and is experimenting with lasers on the ground that could disable, disrupt, and destroy satellites. Workable laser ASATs are probably ten years away due to engineering limitations. The United States also currently has the capability to launch a microsatellite designed to maneuver into a larger target satellite. Other countries would be able to develop similar weapons capability if they so chose.

The Bush administration’s new space policy has significant implications in terms of sustained U.S. commitment to the 1967 Outer Space Treaty, signed by most members of the United Nations, which prohibited the use of space for stationing weapons of mass destruction and banned the use of the moon and other celestial bodies for military purposes. It also raises questions among allies and friendly nations about U.S. commitment to international law and American behavior in space.

## Talking Points

- **The Bush administration has shifted U.S. declaratory policy on weapons in space.**

U.S. declaratory policy now sends the message that the United States regards all satellites as fair targets, intends to hold other countries' satellites at risk in peacetime and war, and plans to pursue ASATs and space-based weaponry.

- **ASATs and space weapons do not protect U.S. satellites.**

Such weapons are not suitable for protection of U.S. satellites, and no space-based threats currently exist. Other nations are not fooled by U.S. declarations that its pursuit of space weapons is limited to defensive purposes.

- **Empty rhetoric: The new declaratory policy is at odds with the actual U.S. posture and investment strategy.**

The political and budgetary viability of a space-control strategy remains in question. The United States currently does not have the capability to carry out its declaratory policy, and it will take decades to develop the new military systems needed to do so. There has been no significant investment in these capabilities.

- **Dangerous implications for U.S. security: U.S. policy removes a decades-long taboo, provides justification for adversaries to pursue this technology, and alienates key allies.**

The new policy provides political cover for adversaries that seek to target U.S. space assets: they can now justify the development of their own capabilities as a response to U.S. policy. It disrupts the status quo, which favors the United States, and at the same time increases risks to U.S. satellites, upon which the United States depends more heavily than any other country for commercial and military use. Opening the door for adversaries to develop either advanced or less sophisticated/cheaper technology that can hold U.S. assets at risk will jeopardize commercial and civilian satellites and threaten U.S. security.

The new policy furthers perceptions of the United States as unilateralist, militaristic, and uncooperative in civil space, and sends the message that the United States is further distancing itself from international law, norms, and institutions. This policy widens the divide between the United States and its allies, such as Canada and the European Union, and potential adversaries, such as Russia and China, all of which have pressed for talks to ban space weapons.

## Prior Legislation

Year	Dept. of Defense Space Spending (classified and unclassified)
1970	approx. \$5 billion
1980	approx. \$9 billion
1985	approx. \$24 billion
1989	approx. \$25 billion
1994	approx. \$16 billion
2000	approx. \$15 billion
2004	approx. \$20 billion
2008 (projected)	approx. \$29 billion

Congress has so far been careful to include restrictions and conditions on funding for suspected space weapons programs. For example, the U.S. Air Force requested \$5.7 million in funding for FY 2007 to fire a ground-based laser from its Starfire Optical Range in New Mexico at a Low Earth Orbit (LEO) satellite, but the House rejected the request due to concerns about the test's ASAT implications. Although Congress approved the funding in conference, the FY 2007 Defense Authorization bill prohibited spending on a planned Missile Defense Agency (MDA) space-based test bed without a full report detailing the goals and costs of a space-based interceptor program.

### **Legislative Recommendations for 2007**

- Congress should stop Missile Defense Agency spending on the space-based test bed and Space-Based Interceptor (SBI). The U.S. needs to fix the ground-based program and work on command/control before jumping into another complex program, especially given that the SBI network will never work or be affordable. In addition, SBIs present a space debris threat and could be a first step toward weaponizing space.
- Congress should hold hearings (both unclassified and classified) on the SBI program, as MDA may be planning to classify all research related to SBI (much of which is happening outside the planned "test bed").
- Congress should kill MDA's Near-Field Infrared Experiment (NFIRE) program, which is serving as a proof of concept for SBIs. Infrared plume experiments can be conducted just as easily from the ground.
- Congress should call for a Government Accountability Office (GAO) report on overall space spending. Given that all the major military space programs are over budget and behind schedule, it is important to get an accounting of space spending to ensure better oversight. DOD set up a "virtual Major Force Program" to track overall spending on national security in space, but it does not explain what programs/agencies are included. DOD has refused to release to the Congressional Research Service detailed FY 2006 budget and spending numbers. NASA has not submitted its required annual report on space spending to Congress since 2004.
- Congress should call for hearings (both unclassified and classified) on the new National Space Policy, taking particular aim at the refusal to accept any "limits" on U.S. actions and calling for the administration to reverse its refusal to discuss confidence-building measures for space and a space code of conduct at the United Nations. Even Gen. James Cartwright, the chief of STRATCOM, has called for space confidence-building measures.
- Congress should cut funding for development and testing of a "weapons-grade" laser at the Starfire Optical Range in New Mexico.
- Congress should call for hearings to raise questions about Starfire's application as an ASAT, since activities at the range include "experiments for applications including anti-satellite weapons," according to Air Force budget documents.

### **Additional Resources**

Center for Defense Information: Space Security Program  
<http://www.cdi.org/program/index.cfm?programid=68>

Stimson Center: Space Security Project  
<http://www.stimson.org/wos/?SN=WS20050210773>

Federation of American Scientists: Weapons in Space

<http://www.fas.org/main/content.jsp?formAction=325&projectId=9>

Hitchens, Theresa, Michael Katz-Hyman, and Jeffrey Lewis, "U.S. Space Weapons: Big Intentions, Little Focus," *Nonproliferation Review*, vol. 13, no. 1, March 2006.