Finding a Path to Spacepower

Delta II soaring over Florida.

U.S. Air Force (Lee A. Osberry, Jr.)

By JOHN M. LOGSDON

Although there has been considerable activity among specialists in national security space since the Bush administration took office, there has only been limited debate on space weapons and their effects. Decisions regarding spacepower capabilities are important domestically as well as internationally and should be made only after thoughtful analysis and discussion.[1]

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Why the Concern?

The report issued in January 2001 by the Commission to Assess U.S. National Security Space Management and Organization, chaired by Donald Rumsfeld, focused on how best to assure that the United States got maximum national security value from its investments in space capabilities. It was careful in its discussion of space weapons but recommended that the United States "should vigorously pursue the capabilities...to ensure that the President will have the option to deploy weapons in space to deter threats to and, if necessary, defend against

U.N. Conference on Disarmament.

AP/Wide World Photo (Donald Stampfli)

attacks on U.S. interests." To those opposed to extending armed conflict into space, the report seemed to be a call for movement toward making outer space the next battlefield.

This was a plausible interpretation. In the years preceding the commission's work, there had been a high level of advocacy of the potential of space capabilities and the military power they could provide. Force application capabilities were a central focus of this advocacy. In 1996 U.S. Space Command issued *Vision for 2020,* which projected that "during the early 21st century, spacepower will . . . evolve into a separate and equal medium of warfare."[2] Two years later, the command released a long range plan that dramatically portrayed how space-based capabilities, including force application systems, are key to national security objectives and could be used to disable or destroy enemy space systems. The report noted that force application systems based in space could also be available for strategic attack on ground-based targets. In the same year, Senator Robert Smith staked out a position as a congressional advocate of spacepower, stating "America's future security and prosperity depend on our constant supremacy in space."[3] Smith's call for a separate military service dedicated to spacepower led to establishment of the Space Commission. In the private sector, the Center for Security Policy took the lead in pushing for stronger national security space capabilities in the final years of the Clinton administration. To the arms control community and others opposed to moving conflict into space, the report of the Space Commission seemed a logical extension of those arguments; it supported developing space weapons and was closely linked to the highest levels of national security policy.

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Spacepower advocates pretty much had the stage to themselves at the start of 2001. The opposition to weaponization was primarily on the instinctive level. In the United States, there was no organized criticism or in-depth thinking on the validity or wisdom of spacepower advocates. It was at least reasonable to conclude that the George W. Bush administration would indeed move quickly toward enhancing spacepower, going beyond traditional space support and force enhancement missions to increased emphasis on space control and even force application from space. Given these factors, it is not surprising that those people in the security policy community traditionally skeptical of increasing military capabilities as the best approach to conflict resolution, became concerned that the Nation would pursue space weaponization without challenge. They have now mobilized to present that challenge.

Thinking About Weapons

Recently a number of public policy centers have added space weaponization to nuclear proliferation and ballistic missile defense on their agendas. These groups traditionally focused on diplomatic, legal, and multilateral approaches to international security affairs rather than the development of unilateral military capabilities. Among them are the Council on Foreign Relations, Eisenhower Institute, Federation of American Scientists, Henry L. Stimson Center, Cato Institute, Center for Defense Information, and Monterey Institute of International Studies.

In addition, some members of Congress have become concerned about the implications of weaponizing space. In 2001 and again in 2002, Representative Dennis Kucinich introduced the Space Preservation Act, which called on the President to "implement a ban on space-based weapons . . . to destroy or damage objects in space that are in orbit, and immediately order the termination of research and development, testing, manufacturing, production, and deployment of all space-based weapons of the United States."

Other Space Priorities

As efforts to assess space weaponization reach fruition, an informed discussion on future national security space policy will become more likely. Just as a loyal opposition has emerged, spacepower advocates have been

Unloading satellite from C–17, Kennedy Space Center.

NASA

silent. Senator Smith was defeated for reelection in 2002, and the last Center for Security Policy statement on space-power was issued more than two years ago. Few senior officials or military officers have been willing to discuss questions on space weaponry in public. With only one side participating, there is no debate.

There are understandable reasons for the official silence on longer-term security space issues. As Secretary Rumsfeld has remarked, the Space Commission report was not primarily about space weapons, but about how best to organize and manage national security space efforts. In response to the report, the Air Force has been designated the executive agent for space, with the Under Secretary of the Air Force, Peter Teets, taking the lead in shaping an organizational structure to integrate the best aspects of Department of Defense and National Reconnaissance Office (NRO) practices and programs in support of national security and warfighting objectives. Given the entrenched nature of the agencies involved, this is proving to be a daunting task and it will be difficult to assign priorities to long-run doctrinal and capability issues until the success of the organizational transitions now underway becomes clearer.

There are also major problems in the short run with key national security space programs. Future imagery architecture of NRO and DOD space-based infrared systems have encountered cost, schedule, and technical problems. Moreover, operators of the Delta IV and Atlas V launch vehicles, which are intended to provide assured access to space, have sought government support to compensate for the collapse of the commercial launch market. Dealing with these issues has required an investment of time and effort by Teets and his colleagues. In addition, they seem to have raised questions in the mind of the Secretary of Defense on the wisdom of such dependence on space systems, given the problem of achieving their operational status on schedule and within budget. A recent DOD task force chaired by Thomas Young, a retired industry executive, has addressed both the programmatic problems and the issue of future dependence.

Beginning the Debate

The silence regarding future planning on the part of the national security space leadership appears to be ending. In particular, Teets has begun to

speak out on the importance of superior space capabilities to meeting national security needs, addressing issues related to the exercise of force application as part of maintaining space control. For example, in fall 2002 he told the Air Force Association:

The need to continue our thinking about space control is not just doctrinal rhetoric, but military reality. Controlling the high ground of space . . . will also require us to think about denying the high ground to our adversaries. . . . The mission of space control has not been at the forefront of our military thinking, because our people have not yet been put at risk by an adversary using space capabilities. That will change.

He also noted the need to apply the new capabilities to every possible form of warfighting and asked: "Are there ways we can use space capabilities to affect the decisionmaking cycle of an adversary, or produce other effects to achieve campaign objectives in ways air, land, and sea forces cannot?"[4]

With Teets in a leadership position, advocates of enhanced spacepower appear ready for public exchange. Many who are skeptical of space weaponization are also reaching preliminary conclusions and will soon seek to gain broader attention. Thus coming months may finally bring what Theresa Hitchens of the Center for Defense Information has called "one of the most important global security policy debates of the 21st century . . . whether the United States needs to develop and deploy space-based weaponry."[5]


First lunar landing, 1969.

NASA

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International Dimension

Space weaponization is not just a national security policy issue but a global concern. The Outer Space Treaty of 1967 prohibits stationing weapons of mass destruction either in space or on celestial bodies, but it is silent on other weapons in orbit. The ABM Treaty of 1972 banned the testing or deployment of missile defense components or systems in space but is now defunct. No other significant international agreements limit stationing force application capabilities in space.

In the past several years, a number of international nongovernmental organizations have studied the issue, stimulated by their understanding of U.S. plans as set forth in Space Command documents and other statements and by the deadlock related to steps to prevent an arms race in outer space proposed in the U.N. Conference on Disarmament in Geneva. That issue has been on the conference agenda since the mid-1980s. In recent years, China and Russia have advocated banning space weapons. Moreover, Canada has taken a leading role in support of a ban. The United States has held to its position on the grounds that "existing multilateral arms control regime adequately protects states' interests. . . . There is simply no problem in outer space for arms control to solve. . . . We see no need for further outer space treaties."[6] Since any action by the Conference on Disarmament requires the agreement of all participants, the U.S. position has effectively blocked movement there on the space weapons issue.

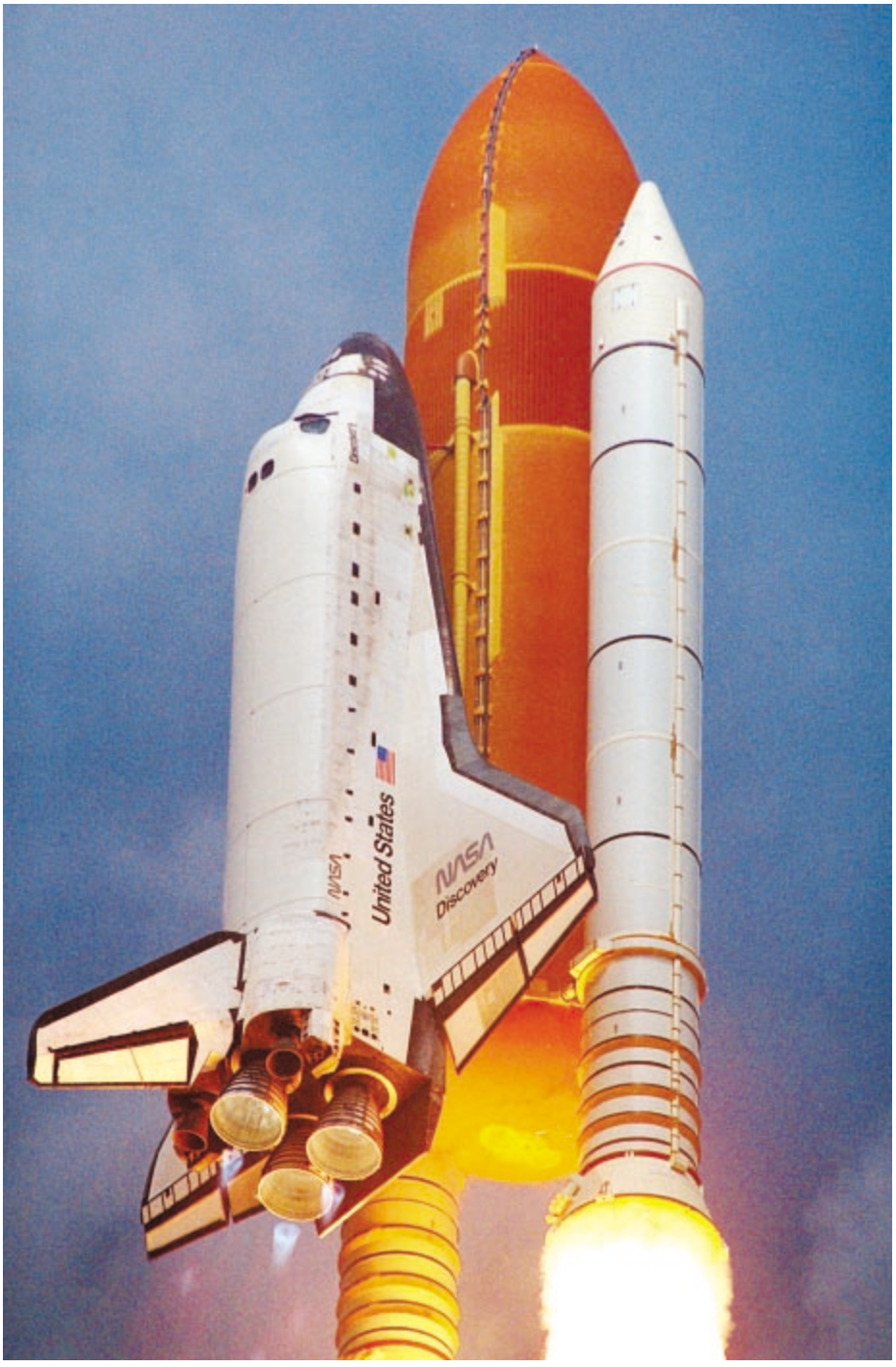
The U.N. General Assembly has passed an annual resolution in the past several years that calls on nations to avoid an outer space arms race. These resolutions, which express the views of members but have no legal standing, have been approved with an overwhelming margin, usually with no opposition and only the United States and Israel abstaining.

The Space Commission report called on the U.S. Government to "participate actively in shaping the [international] regulatory and legal environment" and "review existing arms control agreements in light of a growing need to extend deterrent capabilities to space." But Washington has thus far resisted attempts to begin discussing the regulation of the various uses of space, including as a medium for projecting national power.

Other nations could begin negotiating a new regime for outer space over U.S. objections to pressure Washington into participating. The opponents of space weaponization, assuming that agreements in the framework of the Conference on Disarmament are impossible since the United States can block action, have suggested a process similar to that which led to the treaty banning antipersonnel landmines, which was signed in December 1997 by 121 nations. That process was characterized by a partnership among governmental and nongovernmental actors and multilateral negotiations outside the framework of the conference. If such a process emerged at the initiative of antiweaponization interests, the United States would have to participate in the negotiations, as recommended by the Space Commission, or remain outside of the process. If Washington took part in discussions and eventual negotiations on an international space regime, it could influence the outcome in a manner that is consistent with national interests.

Issues for the Agenda

What might be the leading issues in a debate over space weaponization? First, priority should be given to understanding, in the context of the next 10–25 years, how actual decisions to develop and deploy force application capabilities might be made, and then assessing the positives and negatives of specific decisions. This is preferable to arguing from unexamined assumptions, as both advocates and opponents have too often done.



NASA

One such assumption is that space weaponization is inevitable, and thus the United States should act now to ensure that it is first to develop space weapons. An opposing assumption is that it is in the national as well as global interest for space to remain free of armed conflict. Individuals and organizations holding strongly to either position are unlikely to be productive participants in discussing how best to proceed.

Those observers who hold more nuanced views of the relationship among space weapons, spacepower, space superiority, and national security policy should debate whether and at what pace the United States should develop and deploy antisatellite weapons and space-based force application capabilities. Candid exchanges may reveal whether there are achievable international agreements that might be preferable to unilateral space weaponization.

There appears to be time for debate. One analysis of the military use of space concluded:

there is a better than even chance that the primary use of space will remain force enhancement through 2020–2025 . . . the strategic logic of spacepower argues that weapons will one day be based in near-Earth space because nations will eventually feel compelled to defend their strategic interests there. . . . The odds are that this logic will not drive nations, including the United States, to deploy weapons in orbital space by 2025.[7]

If this judgment is valid, it is appropriate to proceed slowly in developing space weapons capabilities as alternate approaches are explored. Other aspects of space superiority—such as improved situational awareness—should have higher priority.

Two paths could lead to the purposeful choice that it is in the national interest to develop space weapons. One path would follow from the judgment that space weapons are required to carry out the space control mission, which involves not only assuring full U.S. use of space but also denying that use to an enemy. It is not clear that there is a basis for such a judgment. As the head of the space control division on the Air Staff has suggested:

For the time being, this country can achieve space superiority without deploying weapons in space and without the use of weapons that create permanent effects on the commons of space. The United States should use space-based weapons only as a last resort but should not consider such use an unthinkable option. . . . Certainly, one would prefer to control the future through peaceful agreements that are in the mutual interests of the parties involved. At the same time, the United

States must prepare itself to deal with a wide spectrum of potential conflicts in space by developing and testing a number of military capabilities—up to and including space-based weapons, preferably those with temporary/reversible effects.[8]

This perspective seems sound. If the Nation can control space for the foreseeable future without space weapons, it makes no sense to rapidly deploy them, given the implications of both domestic and international opposition to militarizing space.

Noting the military advantages that spacepower confers on the United States, it is highly likely if not certain that other countries will develop military space capabilities. At some point, the lives of military personnel may be put at risk by an enemy with space-based observation and navigation capabilities. Current policy calls for temporary and reversible means to deny that advantage in a conflict, and those means are being developed. Whether the ability to permanently neutralize or destroy satellites is also desirable is the kind of issue that requires continuing discussion.

A space Pearl Harbor—a surprise attack on important space assets—is the sort of concern the Space Commission addressed. The Nation must prepare for such an eventuality with the goal of deterring an attack and then responding appropriately if it should occur.

A second path to space weaponization follows from the conclusion that effective defense against ballistic missile attack on the United States or its allies requires some form of space-based boost phase intercept. The architecture being proposed by the Bush administration does not have space-based intercept capabilities. In the event of a decision that space basing of antimissile capability was preferable to ground basing, the space weaponization threshold would have been crossed. This is therefore another choice where the political and military dimensions should be debated.

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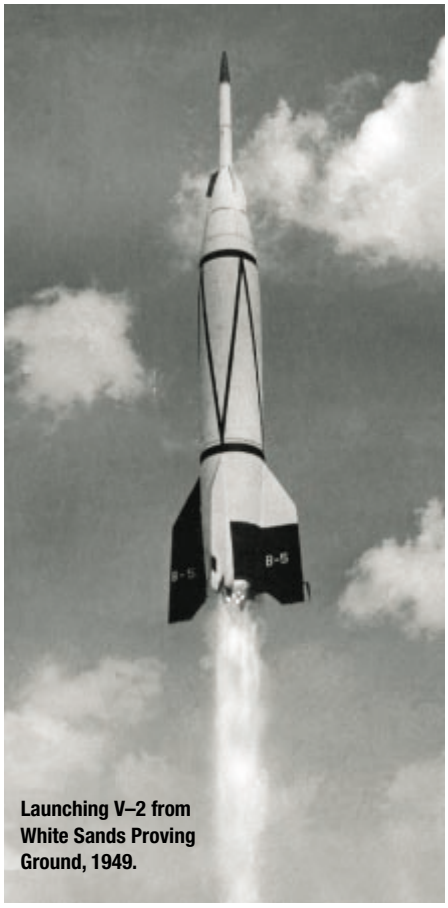

Launching V–2 from White Sands Proving Ground, 1949.

Jet Propulsion Laboratory

For forty-five years the countries of the world have refrained in the main from developing capabilities for conflict in space. While the United States and the Soviet Union tested and deployed antisatellite weapons, a widespread perception arose that using outer space as an arena for warfare is undesirable. By contrast, some believe that space will inevitably become a battleground and that it is vital for the Nation to ensure dominance in that area. Those who hold this position have succeeded in creating an impression, at variance with current realities, that Washington is moving rapidly along a path that will lead inexorably to space weaponization.

The decisions that would lead to such a path have not been made. It is time for a real debate on pursuing such a course. The issues involve a range of political, economic, strategic, and military considerations. It is unlikely that a consensus will emerge, but policymaking on the U.S. approach to 21st century spacepower will be much better informed by airing these issues. **JFQ**

NOTES

[1] See John M. Logsdon, "Just Say Wait to Spacepower," *Issues in Science and Technology,* vol. 17, no. 3 (Spring 2001), p. 36.

[2] U.S. Space Command, *Vision for 2020,* 1996, p. 4, www.gsinstitute.org/resources/extras/vision_2020.pdf.

[3] Robert Smith, "The Challenge of Spacepower," *Aerospace Power Journal,* vol. 18, no. 1 (Spring 1999), pp. 32–39.

[4] Remarks by Teets are found at www.af.mil/news/speech/current/sph2002_21.html.

[5] Theresa Hitchens, " Weapons in Space: Silver Bullet or Russian Roulette?" a paper for The George Washington University Security Space Forum, p. 1, www.gwu.edu/~spi/spaceforum.

[6] Eric Javits, "A U.S. Perspective on Space" in James Clay Moltz, ed., "Future Security in Space: Commercial, Military, and Arms Control Trade-Offs," Occasional Paper no. 10 (Monterey: Center for Nonproliferation Studies, Monterey Institute of International Studies, July 2002), pp. 52–53.

[7] Barry Watts, *The Military Use of Space: A Diagnostic Assessment* (Washington: Center for Strategic and Budgetary Assessments, 2001), pp. 108–09.

[8] John E. Hyten, "A Sea of Peace or a Theater of War? Dealing with the Inevitable Conflict in Space," *Air & Space Power Journal,* vol. 16, no. 3 (Fall 2002), pp. 78–92.