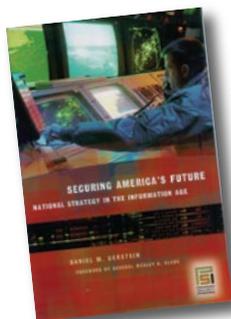


# Book Reviews

**A**s the diversity of articles in this issue's Forum suggests, the topic of integrated operations encompasses a wide swathe of operational and tactical meanings. In his guidance to the Joint Staff, General Peter Pace refers to the need for collaboration "within our own staff, the Department of Defense, the interagency, and ultimately with our Coalition partners. . . . Our collaborative effort with the Office of the Secretary of Defense is critical to enhancing effectiveness in the interagency and can enable the interagency to function more like an integrated task force." The authors of the following two readings have adopted this concept as the touchstone for their works, which tackle the issue of what integrated operations are—and what they could or need to be—in the broadest possible sense.

## Securing America's Future: National Strategy in the Information Age

by Daniel M. Gerstein  
Westport, CT, Praeger, 2005  
288 pp \$44.95  
ISBN: 0-2759-8877-5



Daniel M. Gerstein, a U.S. Army officer and recent military fellow at the Council on Foreign Relations, contends that national security strategy, which historically has depended heavily on the external use of hard (political, military, and intelligence) power, does not take into account the effects of the world's transition into the information age or the accompanying globalization. To be effective in this new age, U.S. security strategy must embrace the elements of soft power (economic, cultural, social, and informa-

tional tools), an approach that will demand an expanded interagency role. According to Gerstein, organizations and agencies wielding soft power—for example, the Departments of Justice, Commerce, Education, and Health and Human Services—should be engaged in every phase of a spectrum of operations traditionally dominated by hard-power elements. In the author's words, "this is about the commitment of national power rather than the commitment of force."

Likewise, the documentary foundation on which national security is based—the U.S. National Security Strategy, the National Strategy for Homeland Security, and the recommendations of the Commission on National Security/21<sup>st</sup> Century and the 9/11 Commission—is inadequate in this regard. To remedy this deficiency, Gerstein recommends the creation of a new National Security Act that will survey national goals and objectives in the information age environment and lay out the ways and means to achieve them.

## "Solving the Interagency Puzzle"

by Major Sunil B. Desai, USMC  
Policy Review 129 (February/March 2005)  
available at <[www.policyreview.org/feb05/desai.html](http://www.policyreview.org/feb05/desai.html)>

Arguing that the stakes are too high to allow poor coordination among the government organizations wielding the instruments of national power, Desai champions a shift to a broader interagency culture akin to the joint military culture created by the Goldwater-Nichols Act of 1986. Citing four impediments to this shift—the lack of a coordinated doctrine of operations, the absence of a central, independent authority for training personnel in such a doctrine, the disparity of regional structures used to organize domestic and foreign policies, and the failure of individual organizations to cultivate an interagency ethos—Desai shows how the Armed Forces, which overcame similar obstacles on the road to jointness, can be used as a model for success. He concludes that his proposals, if enacted, would "enable actual integrated operations, and not just improved coordination and cooperation" among the entities that comprise America's instruments of national power. **JFQ**



L. Yambrick

## The Military Use of Space: A Diagnostic Assessment

by Barry D. Watts  
Washington, DC: Center for Strategic and Budgetary Assessments, 2001  
130 pp. \$20.00  
ASIN: B0006E8UWA

## Astropolitik: Classical Geopolitics in the Space Age

by Everett C. Dolman  
Portland, OR: Frank Cass Publishers, 2002  
208 pp. \$24.50  
ISBN: 0-7146-5200-8



## Mastering the Ultimate High Ground: Next Steps in the Military Uses of Space

by Benjamin S. Lambeth  
Santa Monica, CA: RAND, 2003  
193 pp. \$24.00  
ISBN: 0-8330-3330-1

## International Regimes for the Final Frontier

by M.J. Peterson  
Albany, NY: State University of New York Press, 2005  
340 pp. \$85.00  
ISBN: 0-7914-6501-2

## Review essay by PETER L. HAYS

**E**ven in the wake of the 9/11 attacks, the war on terror, and America's changed perception of national security, inter-relationships between outer space and global security remain salient and highly charged issues. Few security challenges elicit greater strategic expectations or raise more hackles

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than the prospect of significant weapon deployments in space or questions about a separate space force. Despite improvements in integrating space capabilities into operations and some work in implementing recommendations in the January 2001 Rumsfeld Space Commission Report, the United States still lacks a clear vision for foundational national security space issues and has recently backslid in key organization and acquisition efforts. For example, the October 2002 absorption of U.S. Space Command by U.S. Strategic Command resulted in a significant loss of focus and emphasis on military space; the July 2005 separation of the Department of Defense (DOD) Executive Agent for Space from the Director of the National Reconnaissance Office portends the same deleterious outcomes for black-white space integration; and, worse, almost every current major space acquisition program faces large cost overruns and lengthy schedule delays. The United States needs to reconsider carefully the full range of issues raised by the works considered here and then reengage more effectively to develop and implement its vision for national security space.

*The Military Use of Space* is technologically well informed and carefully derives an essential foundation for understanding how space activities are likely to affect national security. Barry Watts is a retired Air Force F-4 pilot and an experienced defense analyst and author on military topics. He endorses current U.S. priorities for military space, a centrist approach unlikely to arouse much enthusiasm but open to attacks by those who believe the Nation should be doing a lot more or a lot less. He urges the United States to continue upgrading its ability to provide actionable, real-time intelligence, surveillance, and reconnaissance data directly to warfighters but doubts that force application will become a more important space mission than force enhancement before 2025. Watts also concludes that the United States will continue to derive far more military capability from space than will any other state, but these benefits will create substantial risks and vulnerabilities for transformation and power projection; America probably has yet to realize more than a fraction of space's potential for force enhancement; and growth in commercial and dual-use space technologies worldwide probably will complicate efforts to sustain the asymmetric U.S. space advantage.

These findings indicate that the path toward space weapons is already a slippery slope, and they highlight the chasm between assigned responsibilities for space control and capabilities to execute this mission. Despite the growing importance and vulnerability of space systems, Watts concludes that the United States does not currently face a strong strategic imperative to weaponize space. Although the strategic logic of space-power favors weaponization in the long run, and the United States has the largest role of any state in this decision, the critical link in the logic chain leading toward this outcome is "the assumption that near-earth space will be an economic and military center of gravity for the United States in the foreseeable future. Yet it is precisely this assumption that seems open to question—at least between now and 2025" (p. 111).

Everett Dolman, a professor at the Air Force's School of Advanced Air and Space Studies, has studied space issues since 1982 as a space systems and foreign-area analyst for the U.S. Government. *Astropolitik*, his intellectual tour de force, discusses grand strategy and world politics at the highest level by explaining how the physical attributes of outer space and the characteristics of space systems ought to shape the application of spacepower. Dolman's book is intellectually grounded in the best traditions of geopolitics, adds genuinely new and vital contributions to the dialogue about space and national security, and develops a compelling vision for how America could use space to promote free-market capitalism and provide global security as a public good. The first book that can legitimately claim to present a comprehensive theory of spacepower, *Astropolitik* is easily the most important book on this topic since Walter A. McDougall's *The Heavens and the Earth* in 1985.

Dolman begins by applying geopolitics to space, deriving the astropolitical dicta that guide his analysis. He posits "future lines of commerce and military lines of communications in space will be the Hohmann transfer orbits between stable spaceports" (p. 73). Since Hohmann transfer orbits begin in low-Earth orbit (LEO)—and all spaceflight must traverse LEO—Dolman identifies this orbit as the first and most important astropolitical strategic narrow. He also describes the astropolitical importance of the geostationary belt, the Lagrange libration points, and the Van Allen radiation belts, and explains

the advantages and limitations of particular launch sites and satellite fields of view. Dolman captures this analysis in his primary astropolitical dictum: "Who controls low-Earth orbit controls near-Earth space. Who controls near-Earth space dominates Terra. Who dominates Terra determines the destiny of humankind" (front dust jacket).

The remainder of the book explains the evolution of the legal and political regime for space that is dominated by the Outer Space Treaty (OST) of 1967, analyzes how this regime relates to astropolitics, and maps a new path forward. Dolman also presents sophisticated social science arguments on issues such as collective action, the Coase theorem, and the tragedy of the commons, relating them to how a legal and political regime for space ought to operate. Not surprisingly, he finds that both the theory and practice behind the current OST-dominated space regime are inimical to his astropolitical dicta and have already stunted U.S. development and use of space. Dolman urges that the United States immediately withdraw "from the current space regime and announce it is establishing a principle of free-market sovereignty in space," use "its current and near-term capabilities...to seize military control" of LEO, and establish "a national space coordination authority" to "define, separate, and coordinate the efforts of commercial, civilian, and military space projects" (p. 157). Throughout, however, he emphasizes that America's priorities in space must remain balanced and that the goal of astropolitics

*is not the militarization of space. Rather, the militarization of space is a means to an end, part of a longer-term strategy. The goal is to reverse the current international malaise in regard to space exploration, and to do so in a way that is efficient and that harnesses the positive motivations of individuals and states striving to improve their conditions. It is a neoclassical, market-driven approach intended to maximize efficiency and wealth* (p. 183).

Benjamin Lambeth's *Mastering the Ultimate High Ground* returns us to Earth with an insightful analysis of the bureaucratic and organizational dynamics that have shaped recent military space efforts. A senior strategic analyst at RAND, Lambeth has emerged as a dean of modern airpower thought with

his analyses on the transformation of American airpower and its use over Kosovo. His previous work provides an ideal background to transcend semantic arguments, review Air Force perceptions about air and space, and analyze the Service's role in the origins of the Space Commission and implementing its recommendations.

The Air Force's efforts to come to grips with space have been molded by its struggles to become a separate Service, the position of the other Services, domestic and global politics, technology developments, and the conceptual issue of whether air and space should be viewed as separate mediums. As Lambeth recounts, during its early years as a separate Service the Air Force centered on the *aero-space* concept—the idea that air and space are best seen as one seamless domain that the Air Force should be primarily responsible for projecting force from and controlling. He explains that the opportunity costs to the Air Force of using the aerospace concept include stifling development of spacepower theory due to inappropriately substituting air characteristics and attributes to describe space and making inappropriate trade-offs when allocating resources between competing air and space systems.

These issues, as well as the perception that the Air Force was an inadequate steward of space, prompted creation of the Space Commission, a move the Air Force rightly perceived as a threat to its current and future space responsibilities. The commission report critiqued Air Force performance in areas such as developing a space cadre and normalizing space operations. However, the commissioners recommended holding off any significant changes in organizational structure such as creation of a space corps or separate Service. They also strengthened the Air Force position by recommending that it be made DOD executive agent for all military space acquisition and that the Commander of Air Force Space Command be made a four-star position independent of the Commander of U.S. Space Command.

Lambeth builds on these organizational considerations to emphasize that increasing U.S. commercial and military dependence on space systems also increases the likelihood that these critical nodes will be attacked. This means the United States must develop more robust *space control* capabilities, defined as ensuring its freedom of action in space while denying the same to adversaries. Lambeth

advocates better space situational awareness capabilities as the most important foundation for space control and favors flexible negotiation options but, in conclusion, does not believe the United States or Air Force would be well served in the near term by deploying weapons in space.

*International Regimes for the Final Frontier* by M.J. Peterson provides insights into a final and perhaps increasingly important way to bound and order thinking about the interrelationships between space and national security. Peterson is a professor of political science at the University of Massachusetts and former editor of *Polity*. His work examines the formation of international agreements on space activity between 1958 and 1988 and is the longest and most formal of the works under consideration. Peterson evaluates whether rational choice theory or social practices best explains regime formation by focusing on bargaining processes and using space as a case study rather than emphasizing the space regimes themselves. This approach differs considerably from the other works and is unsuitable for those unwilling to wade through Peterson's political theory foundation. Those who do, however, will be rewarded with a well-developed and supported conceptual framework about space regimes that also provides a way to study regime formation in other areas of international politics.

Regimes are the sets of rules, norms, and expectations that guide the behavior of actors in certain issue areas. In political theory, rational choice analyses see actors' pursuit of goals as the primary determinant of their behavior, whereas social practices approaches emphasize the role actors perceive themselves playing in shaping their behavior. Peterson finds that both are important, but social practices provide better insights into the development of regimes for space. He also explains that analogy was a more powerful tool than metaphor and shows, for example, how development of the space regime as *res communis* rather than *res nullius* was informed by development of the Antarctic regime. Peterson applies his framework to the development of all major regimes that help define the characteristics of space and regulate its use: locational classification, registration of space objects, rescue of space crews, liability for damage on Earth, military activity in space, exploring and using the Moon, and use of geostationary orbit.

Along the way, he details the development of the treaties and agreements that formalized these regimes, including the 1967 OST, the 1968 Rescue and Return Agreement, the 1972 Liability Convention, the 1975 Registration Convention, the 1979 Moon Treaty, and the 1988 International Telecommunications Union allotment plan for orbit and spectrum resources.

Completion of the last space regime in 1988 and increasing commercial and military space activity facilitate application of Peterson's analytical approach to more recent events. Two trends may be contributing to pressures to modify existing space regimes or create new ones: growth in the number and diversity of major space actors, with commercial players potentially becoming more significant than all but the most important spacefaring states, and the changing locus of space security issues away from the superpowers and toward fora such as the Conference on Disarmament (CD) in Geneva. Neither trend seems likely to buttress current U.S. space policy. A growing number of diverse and commercially driven space actors are not likely to play the same role as states did during the Cold War; similarly, the U.S. position that the OST regime is all that is needed to regulate space activity may become increasingly untenable at the CD and elsewhere. **JFQ**

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