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Review Essay 124

Aaron Bateman, *Weapons in Space: Technology, Politics, and the Rise and Fall of the Strategic Defense Initiative Weapons in Space*. MIT Press, 2024. ISBN: 9780262547369.

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> [President Ronald] Reagan was sincere when he pledged that SDI [Strategic Defense Initiative] would not be used offensively, but [President Mikhail] Gorbachev was correct in his assertion that SDI technologies had the potential to be used offensively (150).

As the world entered into a tense and unstable period after the February 2022 Russian invasion of Ukraine, many politicians and military leaders of countries possessing space technologies were looking into the heavens for a promise of effective defense or strategic superiority. In the United States, the first administration of President Donald Trump created the Space Force as a separate military service and revived the US Space Command that President George W. Bush had terminated.[1] With the new Trump administration and its radical revision of US relations with both allies and adversaries, the role of space is likely to rise in the "America First" framework.[2] President Ronald Reagan's Strategic Defense Initiative (SDI) theology might appeal to Trump as a universal solution in establishing the dominance and primacy of the US at the High Frontier. For this reason, Aaron Bateman's *Weapons in Space: Technology, Politics, and the Rise and Fall of the Strategic Defense Initiative Weapons in Space*, which is a serious examination of the rise and fall of SDI and its implications for further militarization of space, is timely.

Weapons in Space makes a significant contribution to the current debate on the benefits and drawbacks of space exploitation for military purposes. It is a unique book written by a former intelligence official, who is now a professor at George Washington University.[3] Bateman combines his intelligence and technology-

[1] Jim Garamone, "Trump Signs Law Establishing US Space Force," *Department of Defense News*, 20 December 2019, https://www.defense.gov/News/News-Stories/article/article/2046035/trump-signs-law-establishing-us-space-force/.
[2] Sandra Erwin, "Trump's Second Term Could Push Space Force to Take Bolder Stance," *Space News*, 13 November 2024, https://spacenews.com/trumps-second-term-could-push-space-force-to-take-bolder-stance/.
[3] Before receiving his PhD from Johns Hopkins University, Bateman served as a US Air Force intelligence officer. See also Aaron Bateman, "The Weakest Link: The Vulnerability of US and Allied Global Information Networks in the Nuclear Age," *Journal of Strategic Studies* 48:1 (2024): 156-185, doi:10.1080/01402390.2024.2360724.

based background with a comprehensive, multi-archival study of the history of SDI, including domestic political factors, security considerations, Cold War rivalry, arms control, and US relations with its allies. Bateman utilizes an impressive amount of newly declassified US intelligence documents to assess the debate about space weapons and threat assessment. Also, for the first time, "it brings the technological dimensions to the center stage of the narrative and, in doing so, shows that technological choices were simultaneously political decisions" (74). Earlier scholarly literature on SDI addressed mainly the political aspects of decisions on missile defense in the framework of arms control.[4]

On the one hand, *Weapons in Space* is an academic history of SDI and Reagan's unsuccessful attempt to create an impenetrable shield that would render nuclear weapons obsolete. On the other hand, Bateman takes a long view and presents a history of the military uses of space and of unsuccessful attempts at space arms control during the Cold War and into the 1990s. He situates SDI within the framework of this history of the militarization of space and shows that rather than a bolt from the blue, SDI was a logical development, which had elements of continuity with previous attempts to militarize space that are generally unacknowledged in the academic literature.[5] Bateman emphasizes that SDI did not represent a breakthrough towards the "militarization of space," as space had been militarized at the dawn of the space era, with the Soviet Sputnik satellite in 1957. It is rather that the Reagan administration decided to "prioritize freedom of action in space…an arena where it had a distinct technological advantage" (2). The evolution of the militarization of space was in the direction of putting space weapons and warfighting on the policy agendas as new technologies led to new capabilities for both on the US and the Soviet Union.

Bateman shows that for the US (as well as the Soviet Union), the militarization of space began with the deployment of satellites that gathered intelligence on the opponent's strategic capabilities and was later utilized to verify treaty compliance. The first US anti-satellite (ASAT) weapon test was conducted in 1959 and the earliest version of a military space agency, the secretive National Reconnaissance Office in charge of intelligence satellites, which were always referred to as "national technical means" in arms control negotiations, was established by Secretary of Defense Robert McNamara in 1962 (14-16). The connection between strategic offense and defense was debated in the early 1960s and then especially in the early 1970s during the peak of US-USSR détente under President Richard Nixon and General Secretary Leonid Brezhnev (17-19). Since the first ASAT test, the issue of anti-satellite capabilities was a central issue not only between US and Soviet negotiators but also inside successive US administrations. The 1967 Outer Space Treaty banned nuclear weapons in space but did not restrict ASAT technologies because both sides were developing their research in this area and did not want to be limited by treaty regulations.

As détente started to deteriorate in the late 1970s, ASAT supporters gradually started to win the debate over space arms control. President Jimmy Carter, who was a firm believer in arms control, and National Security Adviser Zbigniew Brzezinski tried to negotiate an agreement on ASAT with the Soviets but their effort failed because of disagreements on verification. With Reagan's presidency and the ascendance of the SDI program in 1983, Soviet General Secretary Yuri Andropov repeatedly implored US leaders to negotiate a ban

[4] For example, Frances FitzGerald, *Way Out There in the Blue: Reagan, Star Wars and the End of the Cold War* (Simon & Schuster, 2001).

[5] For example, Mira Duric, *The Strategic Defence Initiative: US Policy and the Soviet Union* (Taylor & Francis, 2017).

on ASAT, and even stopped the Soviet ASAT testing program, but his appeals failed in large part because the ASATs were integral to SDI.

An important contribution of *Weapons in Space* is emphasizing, on the basis of numerous declassified documents, the inherent link between the defensive and offensive nature of SDI and anti-satellite weapons. As a scholar familiar with the Soviet view of SDI and the debate that it generated in Moscow, it is impossible not to conclude that "Gorbachev was right after all." In numerous internal discussions—and importantly in his letters and conversations with Reagan—the Soviet leader kept rebutting Reagan's portrayal of SDI as a purely defensive 'gas mask' and a tool for getting rid of nuclear weapons by citing the offensive aspects of programs that SDI encompassed.[6] For Gorbachev, SDI possessed "attack space weapons capable of performing purely offensive missions."[7]

For many of the Soviet military and political leaders of the World War II generation, SDI contained in itself a possibility of a "blitzkrieg from space," an unprovoked disarming strike that reminded them of Nazi Germany's attack on the USSR in June 1941. Bateman's analysis of US documents shows that Gorbachev was right, the SDI program was, at its core, a plan for space superiority. "[T]he linkages between space-based defense and ASAT technologies," Bateman writes, "undermined Reagan's pledge that the program was fundamentally peaceful and defensive in nature" (72). The best description of Gorbachev's perception of SDI and his interactions with Soviet scientists and military can be found in Andrey Grachev's book *Gorbachev's Gamble*.[8] The Soviets decided to counter SDI with an "asymmetric response" but also invested funds in developing their own ASAT, laser, and interceptor technologies.[9]

Bateman discusses the Soviet response to SDI and even uses several Soviet documents from the papers of at Vitalii Leonidovich Kataev, (deputy head of the Defense Department of the CPSU Central Committee during the late Soviet period and a member of the Five group staffing Politburo decisions on arms control, who later became President Boris Yeltsin's advisor), but here the narrative might have gone a little deeper to elucidate the sources of the US-Soviet and US-Russian tensions about missile defense.[10] Such tensions existed before, during, and after Reagan's SDI program, persisted even during the most cooperative periods

[6] For Soviet internal discussions, see for example the Politburo where SDI is referred to as "space-strike weapons." Extract from Protocol No.66 of the CC CPSU Politburo session, 19 May 1987, Hoover Institution Archive, Kataev Collection, Box 5.

[7] Gorbachev Letter to Reagan, 10 June 10 1985, National Security Archive, https://nsarchive2.gwu.edu/NSAEBB/NSAEBB172/Doc10.pdf. For numerous other examples of Gorbachev's views on SDI expressed directly to Reagan, see Svetlana Savranskaya and Thomas Blanton, *The Last Superpower Summits, Gorbachev and Reagan: Conversations that Ended the Cold War* (Central European University Press, 2020)

[8] Andrey Grachev, *Gorbachev's Gamble: Soviet Foreign Policy and the End of the Cold War* (Polity, 2008). On Soviet perceptions of SDI, see "Space-Strike Arms and International Security," Report of the Committee of Soviet Scientists for Peace against the Nuclear Threat," (Mir Publishers, 1985).

[9] The best source in Russian on asymmetric response is Oznobyschev, V. Ya. Potapov and V. V. Skokov, *Kak gotovilsya 'asimmetrichnyi otvet' na 'strategicheskuyu oboronnuyu initsiativu' R. Reygana, Velikhov, Kokoshin I drugie* (LNAND, 2008). The best US analysis of the Soviet response is Peter Westwick, "'Space-Strike Weapons' and the Soviet Response to SDI," *Diplomatic History* 32:5 (November 2008): 955-979.

[10] Vitalii Leonidovich Kataev papers, 1966/2001, Hoover Institution Library & Archives, https://digitalcollections.hoover.org/objects/39/vitalii-leonidovich-kataev-papers.

in US-Russian relations, and will undoubtedly continue into the future as more space technologies are developed. For example, one conclusion that Bateman himself makes about the Soviet response to SDI was that Soviet fears about weapons in space were justified by the offensive elements of missile defense programs.[11]

Bateman's discussion of the allied reactions to SDI makes another important contribution to the debate about missile defense. He shows that the European allies valued the deterrence stability that reconnaissance satellites provided and that they were almost universally on the side of space arms control rather than testing and deploying ASAT technologies. However, he shows that the "US made decisions on military space matters without significant allied consultation" (101). After Reagan announced SDI in his "Star Wars" speech, North Atlantic Treaty Organization (NATO) counties had to decide both whether to participate in the program and what the nature of participation might be.[12] Bateman provides document-based analysis of major allies' debates on SDI, the initial opposition, and the floating of the idea of an independent European response.

Popular opposition to SDI was widespread in Europe, especially as the launch of the program coincided with the breakdown of arms control negotiations with the USSR and the deployment of US intermediate nuclear forces to Europe.[13] Even Pope John Paul II's Pontifical Academy issued a 1985 report that criticized weapons in space, and the Pope refused to endorse SDI (96). Eventually, however, allied opposition to weapons in space took second place to the fear of being left behind in this technological competition and the revolution in military affairs. Instead of developing a unified position on SDI, "Western European states ultimately competed with each other to secure favorable SDI technology transfer arrangements" (100).

Bateman concludes his book with an insightful chapter on the "demise" of SDI under the administration of President George H. W. Bush. He demonstrates that the end of the Cold War and a new era of US-Soviet and then US-Russian relations contributed to the political imperatives for the US turn away from Reagan's idea of an impenetrable shield to much more limited programs like "Brilliant Pebbles," which never worked in tests (170-197). Bateman provides detailed analysis of the situation where even though the technology was available for a limited missile defense, political factors were unfavorable to SDI and the program was scaled back. Later in the 1990s, with the Commission to Assess the Ballistic Missile Threat to the United States (known as the Rumsfeld Commission after its chair, Donald Rumsfeld), theater missile defense came back to capture the American imagination and eventually led to the US abrogation of the ABM (Anti-Ballistic Missile) Treaty (230-231).

The major strength of *Weapons in Space* is in Bateman's extensive analysis of declassified intelligence documents. He refrains, however, from opining on how reliable that intelligence was. Bateman repeatedly says that US ASAT programs and research about other weapons in space were spurred by the fears of US

[11] Savranskaya, "Soviet Response to Strategic Defense Initiative" in Luc-Andre Brunet, ed., *NATO and Strategic Defense Initiative: A Transatlantic History of the Star Wars Programme* (Routledge, 2022).
[12] Ronald Reagan, "Address to the Nation on Defense and National Security," 23 March 1983, The American Presidency Project, https://www.presidency.ucsb.edu/node/262125.
[13] See Matthew Evangelista, *Unarmed Forces: The Transnational Movement to End the Cold War* (Cornell University Press, 2002).

leaders of the Soviet domination of space and Soviet progress in space technologies. Reagan and his advisers based their concerns on "intelligence reports suggesting that the Soviet Union might get the upper hand in advanced technologies that could be used for strategic defense and security military advantages in space," and the "President increasingly viewed space as a contested 'high ground'" (71, 47). He shows how US fears arose from information about the Soviet growing advantages in space. Even when Bateman's narrative refers to the Team B exercise and its influence on US decision makers, it does not mention the fact that the Team B report, in the words of the venerable US diplomat, intelligence official, and superlative US expert on the USSR, Raymond Garthoff, "was wrong on almost every count… always in the direction of enlarging the impression of danger and a threat."[14] After the end of the Cold War and the declassification of secret documents, substantial evidence now shows that most US intelligence estimates in the early 1980s exaggerated Soviet strategic capabilities and underestimated the Soviet weakness in computer technologies that were essential to deploy weapons in space. Gorbachev certainly was aware of this weakness; this was one of the reasons for fearing SDI—he knew that the Soviets would lose the new round of arms race in space.

This caveat about threat assessment aside, this is an excellent book and a must-read for anyone who is interested in military uses of space and in US-Russian relations. It is also a model of archival research on sensitive intelligence-related subjects.

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[14] Raymond Garthoff, *A Journey Through the Cold War: A Memoir of Containment and Coexistence* (Brookings Institution Press, 2001), 339.