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# America's Space Sentinels: DSP Satellites and National Security

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Richelson, Jeffrey. *America's Space Sentinels: DSP Satellites and National Security*. Lawrence: Univ. Press of Kansas, 1999. 329pp. \$35

Jeffrey Richelson has written a thoroughly researched and comprehensive history of the development, fielding, operation, and evolution of the Defense Surveillance Program (DSP). DSP is the premier U.S. military space system for infrared surveillance, and it has been cloaked in secrecy for most of its forty-plus-year life.

This is a story with a lot of history. It takes us from the early days of the Cold War and the beginning of the space race to the present. It is a story about a high-stakes innovative concept, one with technological risk, developed to cope with a daunting nuclear threat. The program faced adversity at every step, but surprisingly it was an early success, its performance exceeding expectations. Richelson captures the flavor of the Cold War arms race, the advances in nuclear warfare theory and capability, the gradual thawing of the Cold War, and the emergence of the short-range or medium-range ballistic (now called theater ballistic) missile threat. The evolution of DSP is a moving story of the growing power and importance of space technology development. In the end, it is an interesting story of success, with a caution.

Richelson reminds us that DSP's beginning was tied to World War II and the advanced German rocket technology of that era. Captured by the United States and the Soviet Union late in the war, rocket technology was vital to the development of the intercontinental ballistic missile and the space age. With the advent of nuclear-weapon payloads, the United States entered the Cold War and the chilling nuclear impasse with the Soviet Union. Space-borne warning of rocket launches by detection of infrared signatures was a new technological concept, fraught with concerns about sensor systems, cost, performance, and feasibility. That DSP nevertheless was fielded was a remarkable achievement.

DSP was designed initially to provide early warning of long-range ballistic missile attack, but rocket and payload combinations improved, just as the evolving missile threat demanded more timely and precise performance. The theme of "mission creep" enters the story at this point. Once a purely strategic sensor, it came to be used for tactical warning of launches of short and medium-range ballistic missiles, such as Scud. The result has been a heavy demand for precise DSP performance. The numerous ballistic-missile events conducted by North Korea, Iran, Iraq, and the USSR (now Russia), not to mention several Western allies

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(not all for peaceful purposes), have made DSP data a high-demand commodity. Richelson points out that DSP has observed ballistic missile attacks on Afghanistan, Iran, Iraq, Israel, and Saudi Arabia in the 1990s alone.

This is, however, a cautionary tale. Richelson's arguments are convincing that the threat of missile attack continues to grow and along with it the demand for quicker and more certain warning. He notes the irony that DSP has itself become a significant programmatic "rice bowl" and that consequently the development of a successor has been muddled by numerous false starts. Richardson makes a clear case that the community of DSP users and stakeholders has grown to almost unmanageable size and that therefore consensus on performance and cost is elusive. He points out the lingering support for an upgraded DSP, but he argues that DSP is past being optimized and that a more capable system is needed, and soon. He lists the sordid histories of numerous failed contenders; the current one, the Space-Based Infra-red System (SBIRS), appears to be on a path to success.

There is no shortage of detail in this work, which can be problematic. It interferes with the flow of the story. Flight-by-flight chronologies of every satellite, and each position of every satellite, are provided; such detail would have been

better relegated to the appendices. On the plus side, there are extensive appendices on system design and operation.

In sum, Richelson has written a winning book that is strongly recommended to the student of the military space age. It also provides lasting lessons to the military force planner.

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Hunter, Robert W., with Lynn Dean Hunter, eds. *Spy Hunter: Inside the FBI Investigation of the Walker Espionage Case*. Annapolis, Md.: Naval Institute Press, 1999. 250pp. \$27.95

Herrington, Stuart A. *Traitors among Us: Inside the Spy Catcher's World*. Novato, Calif.: Presidio, 1999. 409pp. \$27.95

The enormity of the actual and potential losses to the United States due to the undiscovered treason by John A. Walker, Jr., Clyde Conrad, James Hall, and their colleagues is deftly told in these two exciting and disturbing books. Detecting treason in the United States is a daunting and unending task. The urgent message of both books is that of the need for constant vigilance by all with access to U.S. secrets. Nowhere is that message more critical than in our military,