

# Bulletin of the Atomic Scientists

January/February 2000  
Vol. 56, No. 2, p. 80

## DESTINATIONS

[Home Page](#)

[About Us](#)

[Subscriptions](#)

[Back Issues](#)

[Nuclear Notebook](#)

[BulletinWire News](#)

[In Spanish](#)

[All About The Clock](#)

## The Last Word

# The nuclear burden

by William M. Arkin

Last June, just two weeks after B-2 bombers flew their last missions over Yugoslavia, inspectors got out their clipboards at Whiteman Air Force Base in Missouri, where the B-2s are based.

The mission of the clipboard cadre—called "Spirit Force 99-7"—was to prepare the 509th Wing for a full-fledged Defense Department nuclear inspection.

Every unit in the armed forces with a nuclear mission must be certified once every 18 months. The 509th was scheduled for November 30. Failing is not an option. That's the reason for pre-inspection drills like Spirit Force. But had the inspection occurred at the end of June, the clipboard cadre said, the 509th would have failed.

The United States is not about to fight a nuclear war. But maintaining the exacting degree of proficiency necessary to ensure that nuclear weapons are always safe and never used inadvertently is an ever increasing burden.

Spirit Force ran the B-2 unit through its paces, gauging everything from paperwork to security to proper handling of "nuclear control orders" from the president. In June, the inspectors wrote in their final report that numerous procedures were "rusty due to our recent focus on . . . the war." The report included four findings—that is, "a critical or major deficiency" that "would have resulted in an unsatisfactory rating for one of the 12 areas or caused the wing to fail the [upcoming] inspection."

The deficiencies were not trivial. Wing administrators had two outdated contingency plans. A number of command-post problems surfaced in dealing with the coded presidential order to go to war. Two teams relayed an "emergency action message" with an invalid character. Another team decoded an instruction incorrectly. Three teams failed to correctly relay data to other units. The performance of crew number three of the 325th Bomb Squadron was deemed "unsatisfactory" in loading weapons onto the bomber.

The 509th is not the only unit to have experienced nuclear inspection problems since the Cold War ended. Over the past 10 years, according to the July/August 1999 issue of an internal magazine published by the air force inspector general, U.S. Air Forces in Europe experienced

"wide swings in nuclear surety inspection results." According to the magazine, inspection ratings hit a low in 1993, especially in European countries such as Greece and Turkey, which have small nuclear weapons bases. Management reviews found that the problem was symptomatic of larger issues surfacing at units throughout the service that had a nuclear mission.

Staffs responsible for carrying out nuclear missions were being downsized, resulting in fewer Spirit Force-type visits. The nuclear experience of officers was declining, and regional nuclear weapons maintenance centers set up to reduce manpower requirements--the "Regionalized Maintenance Concept"--were drawing technicians away from the remote bases.

In short, there weren't enough nuclear weapons left in Europe after the Cold War to justify keeping the large numbers of highly trained people who had been committed to nuclear missions. Disarmament efficiencies were creating management inefficiencies.

Although the air force would be happy to see the weapons withdrawn from Europe, NATO sensitivities make that politically impossible. Instead, the air force had to reallocate manpower to staff positions and return maintenance personnel to the field because, in the words of the magazine, "the Regionalized Maintenance Concept proved unworkable."

Inspection trends improved after that, but the requirements of nuclear certification in Europe continue to drain manpower. In a service in which manpower has declined by almost a half since 1988, counting everyone matters.

Does it really matter once a nuclear war starts whether the right weapons land on the right targets at exactly the specified time? Probably not. But there is an additional burden to maintaining nuclear capability that also wastes money and harms conventional warfare competence.

Take the F-16. Some planes, according to a February 1999 Air Combat Command memo, were not able to integrate new precision-guided munitions because their weapons computers were out of memory. The program office, according to the memo, suggested that removing nuclear weapons data from the computers would "free up enough memory to accomplish the advanced weapon integration."

But because removing nuclear weapons data was not in the cards, the program office said a separate computer module would have to be produced to support the smart weapons. Now that's dumb.

---

[William M. Arkin](#) is a columnist, consultant, and writer.

©2000 The Bulletin of the Atomic Scientists