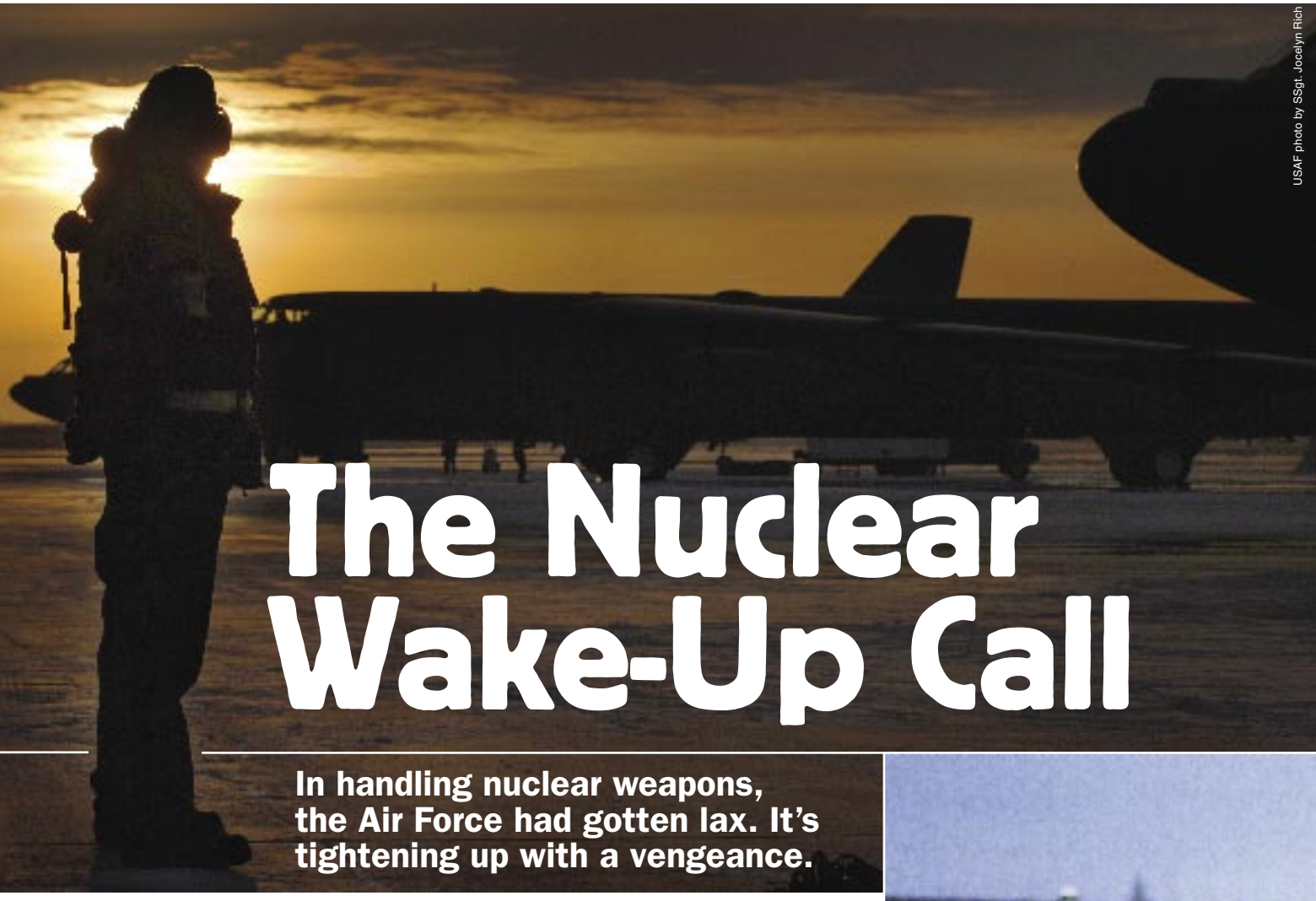

USAF photo by SSgt. Jocelyn Rich

The Nuclear Wake-Up Call

In handling nuclear weapons, the Air Force had gotten lax. It's tightening up with a vengeance.

By Peter Grier

In the wake of last year's accidental, undetected, and sensational cross-country transport of six nuclear weapons aboard a USAF B-52 bomber, the Air Force has begun to reinvigorate its nuclear surety practices.

That incident was a wake-up call, revealing a significant erosion of intensity in the Air Force's focus on nuclear matters. According to current and former Air Force officials, the service needs to raise the profile of the nuclear mission, bolster the expertise of nuclear personnel—particularly in flying units—and standardize nuclear inspection programs.

For its part, the Air Force has begun implementing changes suggested by recent tough nuclear security reviews. At least one-third of the changes proposed have already been made.

"We have moved out smartly on all of these recommendations," said Maj. Gen. Richard E. Webber, assistant deputy chief of staff for operations, plans, and requirements, at a March 12 Senate Armed Services subcommittee hearing.

A Nuclear General Officer Steering Group now is tracking progress in this area, said Webber. Formerly headed by a one-star, the steering group is now commanded by a three-star general, reflecting the seriousness with which the Air Force takes the situation.

Nuclear training has been restored at the B-52 Weapons School, and a simulator profile that involves a nuclear mission is once again part of B-52 flight training, as well.

As a result of the incident last summer, 90 people temporarily were decertified from duties associated with nuclear weapons. The 5th Bomb Wing at Minot AFB, N.D., was decertified from performing nuclear missions, and three colonels—the 5th BW commander and two group commanders—were reassigned.

After months of intense preparation, Minot's bomb wing passed a nuclear surety inspection in March and regained its nuclear operations certification. Another NSI was scheduled for mid-May, about which Col. Joel S. Westa, the new

5th Bomb Wing commander, said, "The eyes of the world will be on this base. We have zero margin for error."

The shocking impetus for all this action took place last Aug. 30, when a B-52 mistakenly carried six advanced cruise missiles with nuclear warheads from Minot to Barksdale Air Force Base in Louisiana.

The B-52's 1,400-mile flight was part of a routine cruise missile repositioning program supporting the ongoing decommissioning of the ACMs.

In such ferry flights, the bomber normally carries two six-missile pylons, one under each wing. Before transport, crews at Minot are supposed to remove the nuclear warheads from the missiles and replace them with dummy warheads.

But on Aug. 29, when the missiles were loaded, the six cruise missiles on one of the pylons were still live. The end result was that no one knew where six US nuclear weapons were, or even missed them, for 36 hours. They were not discovered until workers in Louisiana prepared to move them to a storage area.

"While historically there have been nuclear weapons accidents with varying degrees of severity, no breach of nuclear procedures of this magnitude had ever occurred previously," said Sen. Carl Levin (D-Mich.), SASC chairman, at a Feb. 12 hearing on the incident.

The accidental movement of the nuclear warheads stemmed from an unusual confluence of mistakes and inattention.

Shortly after the incident, Secretary of the Air Force Michael W. Wynne said it was "an unacceptable mistake and a clear deviation from our exacting standards."

Paperwork Snafu

The original movement plan for the day identified two particular pylons of AGM-129s for transport. At the last minute, Minot munitions maintenance squadron personnel changed the plan and made a substitution. One of the scheduled pylons would be replaced by another that was full of missiles closer to the "expiration dates" of their limited-life components.

A paperwork snafu did not record the change in plans, and, crucially, one of the original pylons had not had its nuclear warheads removed. (This was understandable, as its movement was supposed to have been postponed.) When the breakout crew arrived to load the B-52, it took this original pylon, loaded with six nuclear-armed ACMs anyway.

The crew did not properly verify the status of the warheads on the missiles, as established procedure required them to do.

In the past, Minot personnel had used orange cones and multiple placards to distinguish nuclear and non-nuclear-tipped cruise missiles. By the time of the Aug. 29-30 incident, however, standards had slipped to the point where only an 8-by-10 piece of paper placed on the pylons showed which carried live weapons.

There were several other checks in place that should have caught the mistake before the missiles left the base. Per procedure, four different groups were supposed to check the nature of the payload installed in the cruise missiles before the B-52 ferry flight took off.

"Those procedures were not followed," noted a Defense Science Board study led by retired Gen. Larry D. Welch, a former Air Force Chief of Staff and commander of Strategic Air Command.

After several oversights by Minot personnel, the last chance to spot the error rested with the B-52 crew. An officer was supposed to visually verify that the correct missiles were loaded aboard the aircraft, but on this day, only one of the two pylons was inspected. It was the pylon carrying the correct, inert, missiles.

The weapons were then flown to Barksdale, where they sat unnoticed on the ramp for nine hours before crews came as scheduled to remove them from the aircraft. The Barksdale convoy crew, correctly following procedures, noticed that one of the pylons still contained its nuclear warheads.

Lt. Gen. Richard Y. Newton III, Air Force personnel chief, described the incident as an "unacceptable error" stemming from an "unprecedented stream of procedural failures." The root cause, said Newton, was an overall erosion in "adherence to weapons-handling standards."

The incident can, however, serve as a just-in-time warning to the Air Force if corrective actions are implemented now, according to Welch's DSB task force on nuclear weapons surety.

The systemic problems that led to the incident developed over many years, and could have led to a problem that did not end harmlessly.

The incident "has dramatized the need for uncompromising processes and procedures, clear focus on the unique demands

Staff photo by Guy Aceto

Facing page: SSgt. Christopher Oliva waits to marshal a B-52H at Minot AFB, N.D. Left: USAF crew members train with a mock B61 munition.

USAF photo by SSgt. Jocelyn Rich

Airmen at Minot secure a mock missile to the pylon of a B-52H during an alert generation exercise.

of the [nuclear] enterprise at multiple levels of the national security structure, and an environment that attracts, nurtures, and guides the right numbers of the best and brightest as stewards of this uniquely powerful national security force," said the DSB report.

Declining attention to the nuclear mission began with the end of the Cold War and the demise of the Soviet Union. This victory for the West led to a natural reduction in the size of nuclear forces, but also resulted in dispersal of responsibility for nuclear matters throughout the Defense Department hierarchy.

For instance, after the breakup of Strategic Air Command, USAF's nuclear weapons and strategic assets were reassigned.

An Ongoing Debate

SAC's old tanker force was reassigned to Air Mobility Command. The nuclear-capable bomber force was sent to Air Combat Command, an organization previously devoted to tactical missions. ICBMs were assigned to Air Force Space Command. (In the judgment of the Defense Science Board, ICBM forces remain tightly focused on their mission.)

Gen. John D.W. Corley, commander of ACC, said in March that the Air Force is in the midst of "an ongoing debate" about whether the ACC/AFSPC split is the correct organization for nuclear weapons.

Because of concern about maintaining focus on the strategic mission, nuclear-capable bombers within ACC were assigned to 8th Air Force, which has a proud heritage as a strategic bomber command since the early days of World War II. But 8th Air Force itself was subsequently given multiple non-nuclear missions, most recently as the lead for Air Force cyber issues.

Many bomber-related functions were kept at the wing level or moved to ACC headquarters, due to a "skip-echelon" concept. "Hence, 8th Air Force had no day-to-day responsibility for B-52 operations, training, or maintenance," according to the DSB report.

In another example of waning priority, the 2002 Nuclear Posture Review dramatically lowered the profile of nuclear weapons. The US once had a nuclear "triad" consisting of land-based ICBMs, nuclear-capable bombers, and submarine-launched ballistic missiles. The NPR replaced this with a "new triad" of offensive systems, missile defenses, and revitalized weapons facilities.

The strike portion of the new triad was also explicitly split, into nuclear and non-nuclear attack capabilities. In a sense, USAF's nuclear bomber capability was demoted from being a third of the old triad to one-third of one-half of one-third of the new triad.

Perhaps it is no surprise that Welch found the "perception at all levels in the nuclear enterprise that the nation and its leadership do not value the nuclear mission."

Meanwhile, tight budgets drove recurring waves of headquarters staff reductions. The DSB found that 13 of 31 positions the Air Force had assigned at US Strategic Command were unfilled.

During the Cold War, there were numerous general and flag officers and senior DOD civilians whose daily focus was nuclear operations. Today, they've largely been replaced by colonels, Navy captains, and midlevel civil servants.

Although each of these changes may have made sense individually, "the aggregate change is dramatic," the DSB averred. The cumulative result was that "the decline in focus has been more pronounced than realized and too extreme to be acceptable."

"Sustainment" has also become the operational word in the Air Force's nuclear inventory. The lack of any significant nuclear force modernization program made the mission seem even less important, and after 9/11, the shift in priorities accelerated as personnel, attention, and money flowed to support the conventional forces fighting the wars in Afghanistan and Iraq.

Prior to last August's incident, the formal transition training course at Barksdale for all new B-52 crews did not even include nuclear mission flight training. Ditto for the B-52 Weapons Instructor Course. Instead, these courses provided a single simulator mission dedicated to nuclear training.

The net result of all this is that the bomber force overwhelmingly has become focused on conventional missions, and this focus was evident in day-to-day B-52 operations.

B-52 aircrews and weapons handlers interviewed as part of the DSB's fact-finding process estimated that they spent five to 20 percent of their time on the nuclear mission. (Lt. Gen. Robert J. Elder, commander of 8th Air Force, previously told *Air Force* Magazine that his estimate was 25 percent.)

Even as B-52 and B-2 bomber crews regularly prepared for extended Air and Space Expeditionary Force deployments to Guam, there was no comparable focus on possible nuclear missions.

That may soon change, as the Air Force is leaning toward adding a squadron of B-52s at Minot so that the service has enough BUFFs and crews to keep a squadron assigned to a "nuclear AEF" at all times. The designated squadron would spend six months focusing single-mindedly on the nuclear mission, just as other bomber units dedicate themselves to the Pacific mission.

"The issue today is not the use of strategic nuclear forces in non-nuclear contingencies. The issue is the balance and the attitude," concluded the DSB report.

The Air Force's own review of the Minot-Barksdale incident, made public in February, concurred with the DSB that over the past 17 years, service focus on the nuclear mission has diminished, particularly in flying units.

The review's other four general conclusions were:

■ Nuclear surety in the Air Force is sound, but needs strengthening.

AP photo by Dennis Cook

Retired USAF Gen. Larry Welch testifies before Congress in February at a hearing on the Air Force and nuclear security. Welch is a former head of Strategic Air Command as well as USAF Chief of Staff.

■ The Air Force nuclear enterprise works, despite being fragmented.

■ Declining Air Force nuclear experience has led to waning expertise.

■ Air Force nuclear surety inspection programs need standardization.

"There are opportunities for improvement in the Air Force's nuclear enterprise," said Lt. Gen. Daniel J. Darnell, Air Force deputy chief of staff for operations, at a February Senate hearing.

Recommendations

The Blue Ribbon Review was headed by Maj. Gen. Polly A. Peyer, head of resource integration on the Air Staff. A team of 30 airmen with a mix of skills visited 29 locations and interviewed 822 people to help develop its list of recommendations.

The Air Force's internal review recommended a host of changes to the way the service manages its nuclear enterprise. For starters, it urges the Air Force to bolster the experience level of nuclear personnel by developing a formal career development path for everyone—officers to civilians—involved in the nuclear enterprise.

It recommends focused, nuclear-related leadership training, such as the new Nuclear Weapons Center course, for airmen who are going to assume nuclear command or supervisory roles.

The review also proposes restructuring the Headquarters Air Force operations staff at the Pentagon to create a directorate-level office focused only on nuclear matters.

To reinvigorate the field, the Air Force should develop and field advanced technology to bolster nuclear surety and security, says the report. It should roll responsibilities for conducting nuclear surety inspections into a single NSI team—and conduct the inspections on a limited- or no-notice basis. In February, Sen. Bill Nelson (D-Fla.) noted that Minot had passed all its previous inspections, and so "inspections don't provide an accurate picture of the situation."

At that hearing, Welch concurred, adding that "over time, the scope [of inspections] has been more and more limited, to the point where they really don't demonstrate operational readiness."

The Air Force should conduct a risk assessment of the trade-offs involved in balancing conventional and nuclear missions—and adjust priorities as appropriate.

USAF should review the various nuclear-related training courses now offered by various commands, and decide whether they should stay where they are, or be offered to everyone involved in the nuclear enterprise.

The Blue Ribbon Review also recommends that the Air Force draw up a comprehensive list of all nuclear-related service billets, and ensure they are given the highest priority when assigning experienced airmen.

The BRR said Air Force instructions on nuclear-related operations, maintenance, and security should be reviewed for clarity, to reduce chances of an inadvertent mistake. USAF took action on this point when it thoroughly updated Air Force Instruction 21-204, "Nuclear Weapons Maintenance Procedures," to prohibit, among other things, the commingling of nuclear and conventional weapons in the same storage structure.

All told, the various official reviews conducted in the wake of last year's unauthorized nuclear movement have produced roughly 128 specific recommendations for change. Of those, all but a handful are Air Force-specific, noted Webber, the assistant operations director, in March.

Officials say that 41 of the changes have already been implemented and most of the remainder are in progress.

For example, responsibility for B-52 operations, training, and maintenance has been handed back to 8th Air Force.

The Air Force is raising the grade of nuclear supervisory personnel, as urged. While it will take time to rebuild rank-and-file nuclear expertise in the now-depleted nuclear career fields, changes in oversight at the top are easier to implement. A two-star general will oversee nuclear plans, operations, and requirements—with the nuclear mission his sole duty.

To that end, USAF has nominated Brig. Gen. C. Donald Alston for promotion to major general and in February assigned him as director of nuclear operations, plans, and requirements on the Air Staff. Alston's former portfolio included broader space issues.

On the technical side, a one-star general, instead of a colonel, now runs the Nuclear Weapons Center and oversees nuclear weapon-related work. Brig. Gen. Everett H. Thomas became commander of the Nuclear Weapons Center at Kirtland AFB, N.M., in April. The NWC should give the Air Force "cradle-to-grave responsibilities for Air Force nuclear weapons in one single activity," said Webber.

While the Minot-Barksdale incident was extremely serious, the nuclear weapons never left Air Force custody and the entire incident may serve to strengthen a segment of the Air Force that had slowly but surely fallen in relative priority. That was clearly an unacceptable situation, given the enormous strategic importance and destructive power of nuclear weapons. ■

Peter Grier, a Washington editor for the Christian Science Monitor, *is a longtime defense correspondent and a contributing editor to* Air Force *Magazine. His most recent article, "The Military Meets Madison Avenue," appeared in the November 2007 issue.*