

1.0 Executive Summary

On 9 October 2007, the Chief of Staff of the Air Force (CSAF) appointed Major General Polly A. Peyer to chair an Air Force blue ribbon review (BRR) of nuclear weapons policies and procedures. On 19 October 2007, the Secretary of the Air Force (SECAF) announced the formation of the BRR in a press conference. The CSAF tasked the review to take an enterprise-wide look at United States Air Force (USAF) nuclear responsibilities. Specifically, the CSAF highlighted a need to examine organizational structure; command authorities and responsibilities; personnel and assignment policies; and education and training associated with the operation, maintenance, storage, handling, transportation, and security of USAF nuclear weapons systems.

The chair formed a cross-command, cross-functional team of 30 Airmen with a mix of ranks, skills, and experiences from five commands, Headquarters Air Force (HAF), the Air Force Safety Center, and the United States Navy (USN). The BRR team defined the nuclear enterprise as the spectrum of nuclear weapons management responsibilities, aircraft and intercontinental ballistic missiles (ICBM), within the USAF. The team visited 29 locations, met with 54 organizations, and interviewed 822 people. Additionally, the team researched more than 250 books, periodicals, reports, papers, publications, and documents. The results are organized in five areas:

- Leadership and Relationships
- Mission Focus and Culture, History, Safety, and Surety
- Training and Force Development
- Transportation, Accountability, Tracking, Scheduling, and Security
- Organization and Resources

As the United States (US) reduced its nuclear stockpile following the end of the Cold War, emphasis on nuclear weapons declined and the forces assigned to operate, maintain, and support the nuclear capability reduced accordingly, especially in flying units. The ongoing challenge to the USAF is how to achieve a focused, dedicated nuclear capability with a smaller, but equally professional work force.

This report contains 36 observations which lead to 5 general conclusions:

- Nuclear surety in the USAF is sound, but needs strengthening.
- USAF focus on the nuclear mission has diminished since 1991.
- The nuclear enterprise in the USAF works despite being fragmented.
- Declining USAF nuclear experience has led to waning expertise.
- USAF nuclear surety inspection programs need standardization.

This report outlines 36 specific recommendations which lead to 5 general recommendations:

- Communicate senior USAF commitment to the nuclear mission.
- Refocus and reinvigorate the USAF nuclear enterprise.
- Energize USAF commitment to better organize, train, and equip the nuclear enterprise.
- Develop a long-range Force Development strategy to support the USAF nuclear enterprise.
- Consolidate the USAF nuclear surety inspection program.

The observations and recommendations contained in Appendix H range in scope and scale from the ones which can be quickly accomplished to those which are more complex and require more time and potentially substantial resources to implement.

Previous reports and studies during the past 15 years identified many of these observations and recommendations but none have been as comprehensive as this report. A consistent observation permeating this BRR is the friction between the need for surety perfection and operating in an environment of tightly constrained resources. An opportunity to refocus the USAF's commitment to the nuclear enterprise exists in improving advocacy and realigning priorities. Taken in its entirety, this BRR advises the USAF to undertake this endeavor.

Recognizing there are always potential risks, the USAF has a sound nuclear surety program. That said, the BRR team observed areas needing enhancement. Some of the observations and recommendations may warrant further study or expanded resolution, but in this review the BRR team is confident that it has highlighted the relevant areas for improvement. The way ahead must reaffirm the USAF's long-standing commitment to the nuclear enterprise and prove an unequivocal dedication to supporting both deterrence and response. At the heart of this look to the future is a strategy to ensure the USAF nuclear arsenal remains safe, secure, and reliable.

Appendix H – Observation/Recommendation Matrix

Observation	Recommendation
Leadership and Relationships	
<p>1. Leadership in the USAF's nuclear enterprise is professional and dedicated, but experience levels continue to decline.</p>	<p>Formalize a career development plan for officers, enlisted, and civilians to provide them with the depth and breadth of experience necessary for them to assume leadership positions in the nuclear enterprise.</p> <p>Provide focused, nuclear-related leadership training, such as the new Nuclear Weapons Center course, for Airmen prior to assuming command or supervisory roles in the USAF nuclear enterprise.</p> <p>Develop a reliable and easily accessible system to track nuclear experience across the USAF.</p> <p><i>Observation 4 has the same recommendation.</i></p>
<p>2. Nuclear-related aviator experience and expertise is diminishing within the bomber and dual-capable aircraft units.</p>	<p>Assess the frequency and impact of reduction in nuclear training due to demanding conventional requirements in dual-tasked aircraft units.</p>
<p>3. Intercontinental ballistic missile units find it difficult to attract and retain nuclear-experienced Airmen because of the perceived emphasis on and desirability of serving in space operations as opposed to intercontinental ballistic missile-related duties.</p>	<p>Develop a sufficient pool of officers with broad experience in intercontinental ballistic missile-related assignments to serve in key missile leadership positions, to include squadron, group, and wing commands.</p> <p>Expand career broadening opportunities (such as missile maintenance, systems engineering, program management, and policy-related assignments) both to retain officers in missiles and develop them for leadership roles in the intercontinental ballistic missile community.</p>

Observation	Recommendation
<p>4. The diminishing base of nuclear experience in some support specialties makes it difficult to select and prepare leaders for command and supervisory positions.</p>	<p>Formalize a career development plan for officers, enlisted, and civilians to provide them with the depth and breadth of experience necessary for them to assume leadership positions in the nuclear enterprise.</p> <p>Provide focused, nuclear-related leadership training, such as the new Nuclear Weapons Center course, for Airmen prior to assuming command or supervisory roles in the USAF nuclear enterprise.</p> <p>Develop a reliable and easily accessible system to track nuclear experience across the USAF.</p> <p><i>Observation 1 has the same recommendation.</i></p>
<p>5. USAF relationships with combatant commands for the presentation of forces are sound; however, United States Strategic Command noted some difficulty dealing with the USAF skip-echelon organizational construct.</p>	<p>Streamline the presentation of forces to a combatant commander as apportioned by the Joint Staff.</p>
<p>6. Disagreement over nuclear surety inspection standardization negatively affects the relationship between the USAF and the Defense Threat Reduction Agency.</p>	<p>Strengthen the relationship with the Defense Threat Reduction Agency by closing gaps in nuclear surety inspection methodology and standardization.</p>
<p>7. The USAF relationship with the OSD is strong, but there are concerns regarding USAF nuclear enterprise management.</p>	<p>Restructure Headquarters Air Force operations staff to form a directorate-level office which is singularly focused on nuclear matters.</p> <p><i>Observation 8 has the same recommendation.</i></p> <p>Evaluate OSD concerns in regard to resourcing and financial management to determine if further changes are warranted.</p>

Observation	Recommendation
<p>8. The USAF nuclear enterprise is large and diverse, so direct comparison with the United States Navy nuclear organization is difficult.</p>	<p>Restructure Headquarters Air Force operations staff to form a directorate-level office which is singularly focused on nuclear matters.</p> <p><i>Observation 7 has the same recommendation.</i></p> <p>Continue to develop the Nuclear Weapons Center as the USAF's Center of Excellence for acquiring and sustaining USAF nuclear weapons systems and associated handling and security equipment.</p>
<p>Mission Focus and Culture, History, Safety, and Surety</p>	
<p>9. Nuclear surety and security in the USAF are sound, but improvements can and should be made to enhance performance, particularly in light of evolving threats and the opportunities afforded by advanced technology.</p>	<p>Develop and field advanced technology to enhance nuclear surety and security.</p>
<p>10. Focus on the nuclear mission, especially in dual-capable bomber units, has diminished from the robust nuclear culture that existed during the Cold War.</p>	<p>Reinforce the primacy of the nuclear mission within the USAF by addressing organizational constructs, providing more robust training, and appropriately resourcing requirements. Communicate these actions to the force from the top down.</p>
<p>11. Existing forums for integrating USAF nuclear issues exist, but these disparate groups can and should be used more effectively to serve as an enterprise-wide integrating function.</p>	<p>Change the existing Air Force Nuclear General Officer Steering Group (AFNGOSG) charter to empower the group with appropriate authorities to implement Air Force-wide nuclear enterprise reforms. The AFNGOSG should be chaired by a lieutenant general.</p>
<p>12. Nuclear surety inspection criteria are being applied differently by each major command inspection team.</p>	<p>Consolidate responsibilities for conducting nuclear surety inspections (NSI) into a single USAF NSI team and conduct NSIs on a limited- or no-notice basis.</p>
<p>13. Bomber nuclear exercises are not meeting current requirements in frequency or scale.</p>	<p>Evaluate and enforce appropriate exercise guidance in regard to frequency and scale to ensure proficiency.</p>

Observation	Recommendation
14. Doctrine is the cornerstone of military operations and training, but the current manual on USAF nuclear doctrine needs updating.	Publish revised Air Force Doctrine Document 2-1.5 (nuclear operations doctrine) and include the new version in strategic communication messages designed to reinforce the USAF's commitment to nuclear excellence.
15. Recent DoD and USAF guidance positively changed the USAF Personnel Reliability Program, but many commanders and administrators still consider the system to be needlessly cumbersome.	Conduct a USAF -wide Personnel Reliability Program (PRP) survey to identify potential areas for improvements to administrative and training processes while continuing to insist upon strict PRP compliance.
Training and Force Development	
16. Focus on nuclear training has shifted as a result of the increased combatant command requirements for conventional force capabilities.	Conduct a risk assessment of trade-offs between conventional and nuclear taskings and adjust priorities as appropriate.
17. Shortcomings exist in the training for munitions accountable systems officers, particularly on the Defense Integration and Management of Nuclear Data Services system.	<p>Require the Nuclear Maintenance Officer's Course syllabus to place stronger emphasis on munitions accountable systems officer duties and responsibilities.</p> <p>Provide realistic, hands-on Defense Integration and Management of Nuclear Data Services system training to officer and enlisted students attending nuclear munitions courses.</p>
18. Major commands and numbered air forces have created specific nuclear training programs that are external to the formal and institutionalized training curriculum oversight.	Review the various command-sponsored, nuclear-related courses and determine whether they should remain within each major command or be offered on an enterprise-wide basis.
19. The USAF needs to increase opportunities for presence and influence in key nuclear billets, especially in joint and interagency organizations, by filling these positions with highly-qualified individuals.	Develop a comprehensive list of all critical nuclear-related USAF billets, in the Air Force and other agencies, and ensure they are given the highest priority for assigning experienced Airmen.

Observation	Recommendation
20. The curricula of professional military education schools and courses devote at best only minimal time and attention to nuclear-related topics.	Increase the coverage of nuclear policy, technical, and operational issues at all levels of officer, enlisted, and civilian professional military education.
21. The USAF is not consistently leveraging educational opportunities to optimize follow-on assignments or presence in key nuclear billets.	Fill key billets in the nuclear enterprise with National Technologies Fellowship Program and/or Air Force Institute of Technology nuclear engineering program graduates.
Transportation, Accountability, Tracking, Scheduling, and Security	
22. The nuclear force requires clear and detailed direction in instructions and technical orders particularly in light of a less experienced workforce, especially in aircraft units.	<p>Conduct a comprehensive review of all USAF guidance and instructions on nuclear-related operations, maintenance, security, and support to ensure clarity and reduce any potential ambiguity.</p> <p>Ensure strict compliance with published regulations and technical data.</p>
23. Aging transportation and handling equipment is adding to the stress on units with a nuclear mission.	<p>Develop and resource a long-range replacement recapitalization program for aging nuclear support equipment.</p> <p><i>Observation 35 has the same recommendation.</i></p>
24. Accountability of nuclear weapons in the USAF is sound; however, additional experience and training for munitions accountable systems officers will enhance the current process.	Implement appropriate Air Force instructions to require 12-month experience and completion of the Nuclear Maintenance Officer's Course.
25. Custody and transfer processes of nuclear weapons between bases or commands are consistent; however, transfers of assets within a wing require auditable documentation.	Require signatures to document custody transfers as directed in the new revision of Air Force Instruction 21-204.
26. Advanced technology for accountability and tracking can enhance USAF custody of nuclear assets.	Evaluate and resource programs in use today, such as "MoveRight" and portal monitors, for potential implementation within the USAF.
27. Tracking location and status of assigned weapons and components is being accomplished using locally generated systems.	Develop and implement standard scheduling and tracking systems which improve the ability to track locations and status of assigned nuclear weapons and components.

Observation	Recommendation
28. Potential vulnerabilities in missile field convoy operations continue to be a key concern.	Develop and field a new payload transporter for missile field convoys.
29. Host nation security at overseas nuclear-capable units varies from country to country in terms of personnel, facilities, and equipment.	Investigate potential consolidation of resources to minimize variances and reduce vulnerabilities at overseas locations.
30. Changing and growing requirements have prompted USAF units to request nuclear security waivers.	Develop a long-range enterprise plan to reduce waivers through prioritized funding and resourcing.
31. To mitigate missile field security vulnerabilities, there is a critical need to fully fund a replacement helicopter and to fund the sustainment costs of the remote visual assessment.	Field a replacement helicopter as well as field and fully fund sustainment of the remote visual assessment.
Organization and Resources	
32. Current USAF nuclear organizational construct fragments nuclear weapons advocacy and policy.	Examine current organizational construct and process integration supporting the nuclear mission area and provide potential alternatives for improvement.
33. Manpower requirements in some nuclear-capable aircraft career fields and units may not be commensurate with total workload.	<p>Review logistics composite models to determine if the challenges dual-tasked and prime nuclear airlift force units face in maintaining current mission qualifications and certifications (nuclear and conventional) are adequately reflected in each Air Force manpower standard.</p> <p>Review medical manpower requirements at bases with large Personnel Reliability Program populations to determine if adequate manpower requirements are documented and resourced.</p>
34. Program budget decision execution may have caused resource allocation weaknesses in field support for the nuclear mission.	Assess nuclear mission career fields to ensure program budget decision reductions were appropriately targeted and left no seams in enterprise support.
35. Systems and equipment supporting the nuclear mission are aging and continue to impact reliability and availability.	<p>Develop and resource a long-range replacement recapitalization program for aging nuclear support equipment.</p> <p><i>Observation 23 has the same recommendation.</i></p>

Observation	Recommendation
36. Funding for second destination transportation to move nuclear weapons is inadequate.	Ensure nuclear weapon movement support systems receive sufficient funding to execute all required stockpile adjustments.