

Background

No. 1890
October 28, 2005



Published by The Heritage Foundation

Congress Should Back Bush Administration Plans to Update Nuclear Weapons Policy and Forces

Baker Spring

In the next several weeks, the Department of Defense is expected to approve the draft of a new doctrine regarding U.S. strategic and nuclear forces. This is an essential step in carrying out a new policy governing strategic and nuclear forces, established earlier by the Bush Administration.

On January 9, 2002, Department of Defense officials described to the public the contents of the Nuclear Posture Review (NPR). This congressionally required study established a new policy for governing the strategic forces of the United States that was designed to adapt those forces to the requirements of the post-Cold War world.¹ Since that time, the Bush Administration, the Department of Defense (DOD), and the National Nuclear Security Administration (NNSA) in particular have been making steady progress in fulfilling the NPR's promise to move U.S. strategic forces away from a Cold War posture and toward a posture that meets today's needs.

There are indications that Chairman of the Joint Chiefs of Staff General Peter Pace is prepared to take the next big step in the process of transforming the nation's strategic forces. The Joint Staff temporarily posted on its Web site a draft guidance, the *Doctrine for Joint Nuclear Operations*, for the employment of nuclear forces in military operations.² Hans M. Kristensen of the Natural Resources Defense Council found the unclassified document, and press reports indicate that the document will be approved sometime during the next several weeks.³ Approval

Talking Points

- Congress should support approval of the pending draft of the military's Doctrine for Joint Nuclear Operations.
- Approval of this document would represent a major step forward in adapting nuclear deterrence policy and U.S. nuclear forces to the requirements of the post-Cold War world.
- The new doctrine would affirm that the Law of Armed Conflict permits the use of nuclear weapons in war; integrate targeting plans between nuclear and conventional forces and between offensive and defensive forces; strengthen command and control arrangements for supporting nuclear operations; maintain all three legs of the existing triad of offensive nuclear forces (intercontinental ballistic missiles, submarine-launched ballistic missiles, and long-range bombers); maintain high readiness and alert levels for the most important portions of the nuclear force; and adapt nuclear forces to maintaining regional deterrence and conducting nuclear operations in regions important to U.S. security.

This paper, in its entirety, can be found at:
www.heritage.org/research/nationalsecurity/bg1890.cfm

Produced by the Kathryn and Shelby Cullom Davis
Institute for International Studies

Published by The Heritage Foundation
214 Massachusetts Avenue, NE
Washington, DC 20002-4999
(202) 546-4400 • heritage.org

Nothing written here is to be construed as necessarily reflecting the views of The Heritage Foundation or as an attempt to aid or hinder the passage of any bill before Congress.

of this document will help to address a criticism of the DOD that was included in a report earlier this year by an expert panel on nuclear weapons at the Department of Energy, which manages the nation's nuclear weapons production and maintenance infrastructure through the NNSA.⁴ This criticism was that DOD “does not provide [the Department of Energy] with unified and integrated weapon requirements.” The draft guidance, when approved, will provide the NNSA with many of the weapons requirements that the expert panel says it needs.

While DOD is making steady progress toward executing the new policy governing strategic and nuclear weapons derived from the NPR, Congress has been inconsistent in supporting this critical effort. For example, Congress has refused to fund a variety of nuclear weapons research programs, including the Robust Nuclear Earth Penetrator program in 2004, in part because some in Congress believe it is essential to arms control not to test new nuclear weapons under any circumstances.

Congress must recognize that nuclear weapons remain an essential part of the military capabilities that protect the nation's security, keep the peace, and advance U.S. nonproliferation goals. Further, Members of Congress need to understand that the current nuclear arsenal and its supporting infrastructure remain products of the Cold War and are not capable of reassuring U.S. friends and allies, dissuading strategic competitors, deterring aggression, and defeating the enemies of the U.S.—goals spelled out in the NPR.

Congress can move to restore confidence in the strategic and nuclear forces of the U.S. by reaffirming the policy established by the NPR, pledging to meet the military requirements spelled out in the new draft doctrine, and funding the specific nuclear weapons research, development, and mod-

ernization programs that will ultimately assure that these military requirements are met.

The Nuclear Posture Review

The NPR establishes a new strategic triad to replace the triad that protected the U.S. during the Cold War. The old triad consisted of offensive nuclear weapons and their supporting command and control network and infrastructure: intercontinental ballistic missiles (ICBMs), submarine-launched ballistic missiles (SLBMs), and long-range bombers. The new triad preserves the three elements, albeit at reduced numbers, and augments them with non-nuclear strike systems, defenses, and a responsive infrastructure. These latter components are designed to ensure that U.S. strategic forces can be adapted to address unexpected developments in today's fluid and less predictable security environment.

While the NPR reduces the preeminent role of nuclear weapons in the strategic force posture and recommends reducing their numbers to levels not seen since the 1970s, it clearly recognizes that nuclear weapons continue to play an essential role in protecting national security. The NPR is equally clear in determining that maintaining peace and security in today's environment requires that nuclear weapons serve broader purposes than they did during the Cold War, when they were intended to deter the Soviet Union from launching a nuclear strike at the U.S. and its allies.

Although the NPR does not use this terminology, it established a “damage-limitation strategy” to guide the creation of the new strategic triad. The nuclear arsenal, as an essential element of the new triad, is designed to make the necessary contributions to meeting the needs of the damage-limitation strategy. This strategy is designed to lessen the incentives for other states to acquire nuclear, biological, and chem-

1. U.S. Department of Defense, “Special Briefing on the Nuclear Posture Review,” news transcript, January 9, 2002, at www.defenselink.mil/cgi-bin/dlprint.cgi (January 10, 2002).
2. Joint Chiefs of Staff, *Doctrine for Joint Nuclear Operations*, Joint Publication 3–12, Final Coordination (2), March 15, 2005.
3. Walter Pincus, “Pentagon Revises Nuclear Strike Plan,” *The Washington Post*, September 11, 2005, p. A1.
4. U.S. Department of Energy, *Recommendations for the Nuclear Weapons Complex of the Future: Report of the Nuclear Weapons Complex Infrastructure Task Force*, Draft Final Report, July 13, 2005.

ical weapons; to reduce the likelihood of an attack on the U.S. and its friends and allies with such weapons; and to limit the impact of such attacks.

Specifically, the damage-limitation strategy seeks to:

- Dissuade states and terrorist groups from acquiring nuclear, biological, and chemical weapons and the means to deliver them in the first place.
- Dissuade states that already have nuclear, biological, and chemical weapons and the means to deliver them from acquiring more of them.
- Reassure friends and allies in a way that reduces their appetite for nuclear weapons and for ballistic missile delivery systems in particular.
- Reassure friends and allies in a way that improves the ability of the United States to maintain stability in a proliferated setting.
- Deter attacks on the U.S. and its friends and allies with nuclear, biological, and chemical weapons, particularly those mounted on ballistic missile delivery systems.
- Deter terrorists from attacking the U.S. and its friends and allies with nuclear, biological, and chemical weapons by whatever means of delivery.
- Defeat possible attacks on the U.S. and its friends and allies with nuclear, biological, and chemical weapons, whether by enemy states or terrorists, in part by deploying effective defenses against such attacks and in part by destroying the means of attack through offensive operations.
- Defeat the purpose of possible attacks on the U.S. and its friends and allies with nuclear, biological, and chemical weapons, whether by states or terrorists, by limiting the damage that such attacks would otherwise inflict.

Meeting these requirements requires the kind of diversified strategic force envisioned by the NPR in the new triad. In this context, the nuclear arsenal, as a subset of the new strategic triad, will contribute greatly to meeting some of these requirements.

Nuclear weapons can play roles in meeting these requirements, even in situations where, on the surface, they would appear to play little or no role. For

example, U.S. nuclear weapons would appear to do little to dissuade suicidal terrorists from acquiring nuclear weapons. However, if the U.S. makes it known that a hostile state may be subject to nuclear retaliation if it furnishes a nuclear weapon that a terrorist organization uses in an attack, nuclear weapons will help to dissuade the state sponsor. While the terrorist organization itself may not be dissuaded in this instance, its logical supplier may think twice. This in turn, at least at the margin, will lessen the likelihood that the U.S. will face a nuclear-armed terrorist group.

The key here is to have a modern nuclear arsenal that includes weapons specifically tailored to meeting this purpose. While the government has yet to define the design of these weapons, it is clear that the existing nuclear arsenal, inherited from the Cold War, does not include such weapons.

The Draft Doctrine for Joint Nuclear Operations

While the decision to adopt the draft Doctrine for Joint Nuclear Operations rests with the DOD leadership, Congress should support approval of the draft in its current form. Congress also needs to recognize both that this doctrine will impose requirements on the combatant commanders who are responsible for directing wartime operations and that it must support and fund the nuclear weapons programs that will allow the commanders to meet their requirements. For Congress to meet its own responsibilities, it must first understand the content of the Doctrine for Joint Nuclear Operations, especially given that it is likely to become official DOD guidance in the near future.

The draft Doctrine for Joint Nuclear Operations is necessarily a lengthy and detailed document. Nevertheless, it contains several provisions that deserve the special attention of Congress because they carry specific implications with respect to how Congress will meet its responsibilities to provide military commanders with the tools that they need.

Implication #1: The Law of Armed Conflict permits the use of nuclear weapons in war.

The draft Doctrine for Joint Nuclear Operations is crystal clear on the subject of the permissibility of

using nuclear weapons in war. Support for this finding in the draft document is the most important nuclear weapons–related policy issue facing Congress today because opponents and critics will be looking for weakened wording. If this draft document is adopted, U.S. military commanders will be assured, as they have been in the past, that they will have the option to recommend the use of nuclear weapons to the President under appropriate circumstances and that executing a presidential order to use them constitutes a legal order.

Others, including those in favor of U.S. nuclear disarmament, have contended and will contend otherwise because they view the employment of nuclear weapons as a disproportionate use of force under all circumstances.⁵ Their contention is wrong, and Congress needs to understand that fact. If Congress fails to understand this fact, it is certain to fail to meet its responsibility to provide military commanders with the authority and nuclear forces that they need to protect the U.S.

At the same time, Congress needs to understand that the key words here are “under appropriate circumstances.” As with the use of other weapons, nuclear weapons may be used only under circumstances in which it is necessary to achieve legitimate military objectives and ensure military advantage. Inherent in this limitation is the principle of proportionality, which seeks to limit unnecessary suffering and protect noncombatants. The implication of this limitation for Congress is that the U.S. needs to modernize its nuclear arsenal in a way that precisely meets U.S. military objectives in today’s world.

Implication #2: Integrated target planning is the cornerstone of overall strategic planning.

The NPR established a new strategic triad that includes conventional and defensive forces in addition to nuclear forces. This step effectively limits the role of nuclear forces in the overall U.S. strategic posture. It also poses a significant challenge to design new plans to guide the creation of strategic forces, including nuclear weapons, and govern their use. The draft Doctrine for Joint Nuclear Operations

handles this by establishing an integrated targeting process. Specifically, this process seeks to allocate targeting requirements among conventional and nuclear forces on one axis and between offensive and defensive forces on a second axis.

If Congress is to clear the way for modernizing the nuclear force to meet the needs of this integrated targeting process, it must begin by funding a robust research and development effort to determine which nuclear weapon capabilities are needed to hold at risk the various targets. The targets will be determined through the Doctrine for Joint Nuclear Operations’ planning process. The draft Doctrine for Joint Nuclear Operations provides an illustrative list of the targets to be included:

- Weapons of mass destruction and their associated delivery systems, along with their command and control and logistic support units;
- Ground combat units, along with their associated command and control and support units;
- Air defense facilities, along with support installations;
- Naval installations and combat vessels, along with their associated support facilities and command and control capabilities;
- Non-state actors and, specifically, their facilities and operation centers that possess weapons of mass destruction;
- Nuclear storage, non-nuclear storage, and hardened ICBM launch facilities; and
- Political and military command and control.

The draft document also defines the factors to be considered in terms of placing a particular target on the list. These include time sensitivity, hardness, size, the geological factors related to underground targets, damage levels required, defenses, mobility, proximity to populated areas, and the potential for collateral damage.

One press description of the Doctrine for Joint Nuclear Operations points to the illustrative target list and its associated mission requirements and

5. For a detailed argument in favor of the impermissibility of the use of nuclear weapons, see Charles J. Moxley, Jr., *Nuclear Weapons and International Law in the Post Cold War World* (Lanham, Md.: Austin & Winfield, 2000).

states that the doctrine “envisions commanders requesting presidential approval to use [nuclear weapons] to preempt an attack by a nation or a terrorist group using weapons of mass destruction.”⁶ This implies that the doctrine envisions the U.S. launching unprovoked nuclear attacks at a moment’s notice. The same article quotes Hans Kristensen of the Natural Resources Defense Council as explicitly stating, “This doctrine does not deliver on the Bush administration pledge of a reduced role for nuclear weapons.”⁷

Neither the implied nor the explicit conclusion is true. U.S. nuclear weapons policy, even prior to the Bush Administration, has maintained the option to use nuclear weapons to preempt an attack under extraordinary circumstances. The U.S. has never launched an unprovoked nuclear attack in its history.

Further, the NPR downgrades nuclear weapons from the preeminent role they played in the Cold War strategic posture to a more narrowly defined and coequal role with conventional and defensive weapons. An ongoing process to reduce the number of deployed warheads to between 1,700 and 2,200 accompanies this role. The draft Doctrine for Joint Nuclear Operations reflects the policy established by the NPR.

Implication #3: Effective and reliable command and control structures are necessary to conduct effective nuclear operations.

Strategic forces generally, whether conventional or nuclear, offensive or defensive, must be supported by an effective command and control structure. By definition, this requirement extends to the nuclear-armed portion of the force. The two most important characteristics of an effective nuclear command and control structure are survivability and speed of execution.

The command and control structure must be robust and redundant enough to survive an enemy

attack, including an attack employing electro-magnetic pulse (EMP). On July 22, 2004, a congressionally appointed commission reported to Congress that U.S. military forces are potentially vulnerable to a nuclear-generated EMP.⁸ An EMP is similar to an extremely high-energy radio wave. It has the potential to disrupt communications systems, including military systems.

The nuclear command and control system must also allow the delivery of nuclear weapons to their designated targets in a timely manner, particularly if those targets are mobile and therefore time-sensitive. These command and control requirements will impose on Congress the duty to authorize and fund periodic upgrades in the overall strategic and nuclear command and control systems.

Implication #4: The existing triad of nuclear weapons remains the best option for the overall strategic nuclear force posture.

During the Cold War, the U.S. maintained a triad of ICBMs, SLBMs, and bombers because this combination of strategic nuclear weapons provided the best option for ensuring the survivability of the force, flexibility regarding its employment, and effectiveness in meeting targeting requirements. Most important, it enhanced deterrence. The NPR preserved the strategic nuclear triad and nested it in a broader triad that includes defensive forces and a responsive infrastructure to address unforeseen developments.

The Doctrine for Joint Nuclear Operations relies on the strategic nuclear triad to meet the requirements established by the document. As a result, military commanders will need to modernize all three legs of the strategic nuclear triad to support their operations. This includes both the nuclear payloads and the delivery systems. This modernization must also adapt these nuclear weapons to holding at risk the kinds of targets described earlier in the discussion of the integrated targeting requirements.

6. Pincus, “Pentagon Revises Nuclear Strike Plan,” p. A1.

7. *Ibid.*

8. John S. Foster, Jr., Ph.D., *et al.*, *Executive Report*, Vol. 1 of *Report of the Commission to Assess the Threat to the United States from Electromagnetic Pulse (EMP) Attack*, 2004, at www.house.gov/hasc/openingstatementsandpressreleases/108thcongress/04-07-22emp.pdf (October 20, 2005).

Implication #5: High levels of readiness for certain portions of the strategic nuclear force are necessary to maintain its effectiveness.

The Doctrine for Joint Nuclear Operations establishes two levels of readiness for U.S. strategic nuclear forces. The higher level pertains to the “operationally deployed” force. The lower level is described as the “responsive capability.”

The operationally deployed force will consist of the 1,700 to 2,200 warheads after arms reductions are completed in 2012. This operationally deployed force is designed to meet immediate and unexpected threats and must be on alert or available within days. The responsive capability is to address potential threats and will establish a range of availability criteria. At the short end of the range is a response time of “within weeks,” while the long end of the range is a “year or more.” The readiness and alert levels of the operationally deployed force are particularly important to maintain the deterrent effect of the U.S. strategic nuclear posture.

Implication #6: Nuclear operations are an essential component of broader theater operations, and regional commanders need to address the requirements for nuclear stability in their regions.

With the proliferation of nuclear, biological, and chemical weapons and the means to deliver them, regional military commanders must plan for the possible use of nuclear weapons in theater operations. This is necessary because both hostile states and terrorist groups may use these weapons against the U.S., its forces, and its allies. The Doctrine for Joint Nuclear Operations will task these regional commanders with defining objectives for theater operations and developing the requisite nuclear plans to meet those objectives, with the support of the Commander of U.S. Strategic Command. The regional commanders’ plans are required to include target selections.

The doctrine also provides a list of illustrative cases in which nuclear weapons may be used. These include:

- Countering an adversary’s use or intended use of weapons of mass destruction (WMD) against U.S., multinational, or alliance forces or civilian populations;

- Countering an imminent attack with biological weapons that only nuclear weapons can destroy safely;
- Directing attacks on adversary WMD installations, including those in deeply buried or hardened bunkers;
- Countering overwhelming adversary conventional forces;
- Attaining the rapid and favorable termination of a war;
- Ensuring the success of U.S. and multinational military operations;
- Demonstrating U.S. intent and capability to deter enemy attacks with WMD; and
- Responding to WMD attacks on U.S. and multinational forces by surrogates armed by an adversary.

The draft doctrine for Joint Nuclear Operations’ requirements regarding theater nuclear operations make urgent the need to understand how to deter, and if necessary defeat WMD attacks in settings in which more than two adversaries with such weapons may be participants in a conflict. Nuclear stability in such multilateral settings is not easily achieved. The risk is that the complexity involved may overwhelm the ability of U.S. political and military leaders to assess the best political and military options available to them. Therefore, after the doctrine is approved as expected, regional commands, the U.S. Strategic Command, the Joint Staff, and DOD civilian leaders will—and ought to—conduct detailed assessments of the requirements for nuclear stability in specific regions.

Requirements for Congress

Once the draft Doctrine for Joint Nuclear Operations comes into force, the combatant commanders of the U.S. military will have a moral and legal responsibility to produce the specific military plans governing the use of nuclear weapons and perhaps execute those plans in ways that are consistent with the doctrine. The requirements that the doctrine will directly impose on military commanders will also indirectly impose responsibilities on Congress, because the military commanders cannot meet

their responsibilities if Congress fails to provide them with the tools that they need.

Such a failure by Congress would put commanders in the impossible position of committing the nation's soldiers, sailors, airmen, and Marines to nuclear combat operations in which there is no possibility of military success. To avoid such an outcome, Congress should take the following legislative steps.

Step #1: Affirm that the use of nuclear weapons in war is consistent with the Law of Armed Conflict.

Assuming that the Doctrine for Joint Nuclear Operations is approved later this year, Congress should include a policy finding in next year's Department of Defense Authorization Bill that affirms the doctrine's declaration that the use of nuclear weapons is consistent with the Law of Armed Conflict. Such a finding will remove any ambiguity regarding the question of whether a military commander is following a legal order from the President to conduct a nuclear operation. This action by Congress will also serve to bolster deterrence by demonstrating the resolve of the U.S. to use nuclear weapons if the circumstances described in the NPR, National Security Presidential Directive 14 (which provides presidential nuclear planning guidance), the Policy Guidance for the Employment of Nuclear Weapons (a DOD document), and the Doctrine for Joint Nuclear Operations pertain.

In taking this action, Congress should understand that such a policy finding does not represent a radical departure from the U.S. position on the legality of nuclear operations during the Cold War and the period immediately following the Cold War. Rather, it would clarify the matter for all concerned as it relates to today's post–September 11 world.

Step #2: Authorize and fund a U.S. nuclear weapons modernization effort that is not artificially constrained by a unilateral limitation on the conduct of nuclear explosive tests.

In recent years, Congress has not been consistent in funding a robust nuclear modernization program. In part, the inconsistency stems from a desire on the part of some in Congress to prohibit nuclear explosive testing by the U.S. for the foreseeable

future. Generally, these Members of Congress supported U.S. ratification of the 1996 Comprehensive Test Ban Treaty (CTBT). The CTBT, if it enters into force, would permanently prohibit the participating states from conducting explosive nuclear tests. The Senate voted to reject ratification of the CTBT on October 13, 1999.

While the U.S. has not conducted an explosive test since 1992, there is no international obligation preventing such a test at this time. Absent U.S. ratification of the CTBT and its entry into force, the treaty's supporters in Congress seek to constrain U.S. testing options on a unilateral basis. The result has been inconsistent congressional support for vitally important nuclear modernization programs.

An example of this inconsistency is the ongoing debate over funding for a program to research the effectiveness of a weapon designed to destroy enemy targets that are buried deep underground in hardened bunkers. The need to hold such targets at risk, including with nuclear weapons, is affirmed in the draft Doctrine for Joint Nuclear Operations.

The Department of Energy has had a program in place to study the feasibility of a nuclear weapon to hold these targets at risk. This program is called the Robust Nuclear Earth Penetrator (RNEP). In 2004, however, Congress failed to fund continuation of the program under the Energy and Water Appropriations Bill. Nevertheless, the Bush Administration requested \$4 million this year to complete the RNEP study because it recognizes how essential this program is to national security. Despite the critical importance to national security of completing the RNEP study, the House version of this year's Energy and Water Appropriations Bill (H.R. 2419) again fails to provide funding. The Senate version of the Energy and Water Appropriations Bill did accede to the Bush Administration's request. On October 25, 2005, however, Senator Pete Domenici (R–NM) announced that funding for the RNEP study will be dropped from the Energy and Water Appropriations Bill by House–Senate conferees.⁹

Recognizing the critical nature of the research into weapons to destroy deeply buried targets, the House Defense Appropriations Subcommittee has decided to initiate a new research program to replace

the RNEP program. This new program is established under the Air Force by the Department of Defense Appropriations Bill (H.R. 2863) and is called the Hard and Deeply Buried Target Defeat System. This new \$4 million program will examine both nuclear and conventional options for fielding a weapon with a demonstrated capability to destroy deeply buried and hardened targets, which makes it consistent with the integrated targeting policy called for in the draft Doctrine for Joint Nuclear Operations.

Funding for this new program will be set later this fall when House and Senate defense appropriators meet in conference to draft a final version of the Defense Appropriations Bill. As the appropriators convene the conference committee, they should recognize that the option adopted by the House Defense Appropriations Subcommittee is the best approach because it circumvents the blocks put in place by the House Energy and Water Appropriations Subcommittee and better assures that any weapons produced from this research will meet the requirements of the draft Doctrine for Joint Nuclear Operations.

The appropriators also need to understand that the Hard and Deeply Buried Target Defeat System research program is a new program under the Air Force and, given the initial costs and the broader mandate, should therefore provide more robust funding to the Air Force than the Bush Administration sought for continuing the RNEP program. Specifically, the Defense Appropriations Bill should provide \$18 million to the Air Force for the Hard and Deeply Buried Target Defeat System research program.

Once it has taken this action, Congress needs to press for similar modernization efforts across the nuclear force in order to support the kind of integrated targeting plan that is envisioned by the draft Doctrine for Joint Nuclear Operations. This is necessary because the integrated targeting plan is at the

heart of an effective damage limitation strategy that will protect U.S. security in today's setting. Such a modernization effort will ensure a nuclear force that complements the conventional offensive and defensive forces to provide a balanced strategic posture in the future.

Step #3: Authorize and fund periodic upgrades in the nuclear command and control system.

The draft Doctrine for Joint Nuclear Operations directs that nuclear command and control must not be interrupted. This depends on a survivable and agile system. Congress can ensure that nuclear command and control is fully capable by authorizing continuing improvements in the system and funding the programs necessary to put these improvements in the field.

The following three specific improvements in the nuclear command and control system should be of particular interest to Congress:

- **Synchronizing the nuclear command and control system with those used for conventional strike weapons and defensive systems.** Given the destructive power of nuclear weapons, it is necessary to maintain separate command and control systems and arrangements for nuclear weapons. On the other hand, the integrated targeting arrangements in the Doctrine for Joint Nuclear Operations will necessitate coordinating nuclear operations with conventional strike and defensive operations. This in turn requires the synchronization of the separate command and control systems and arrangements of all three to improve combat coordination and efficiency.¹⁰
- **Protecting against EMP.** As described earlier, a congressionally appointed commission reported to Congress in 2004 that U.S. military forces are potentially vulnerable to nuclear-generated EMP. Heritage Senior Policy Analyst Jack Spencer rec-

9. Pete Domenici, "Domenici: NREP Funds Dropped from Appropriations Bill," Press Release, October 25, 2005.

10. For a detailed description of the requirements for the synchronization of offensive and defensive systems in particular, including for command and control arrangements, see General John L. Piotrowski, "Strategic Synchronization: The Relationship Between Strategic Offense and Defense," Heritage Foundation *Ballistic Missile Defense Technical Studies Series*, Study No. 1, 2002.

ommended that a portion of U.S. military assets be retrofitted to protect against EMP, following the release of the commission's report.¹¹ Given that nuclear command and control, by definition, must be able to operate in a nuclear environment, protecting it against the effects of EMP should be the highest priority in the retrofitting process.

- **Maintaining a rapid response capability.** A clear priority in the draft Doctrine for Joint Nuclear Operations is to obtain a nuclear force capable of holding time-sensitive targets at risk. This means that nuclear weapons in the U.S. arsenal must be able to strike at mobile targets with both high precision and very short delivery times to the target. This capability depends on a sophisticated and nimble command and control system for operating these weapons.

Step #4: Maintain and modernize the delivery systems of all three legs of the nuclear triad.

Nuclear weapons systems in the U.S. arsenal consist of more than the nuclear weapons themselves. In fact, the Cold War strategic nuclear triad is defined more closely by the type of delivery system than it is by the type of warhead. The ICBMs, SLBMs, and bombers currently in the arsenal were all designed and built during the Cold War and are continuing to age. In the short term, Congress should ensure that the service life of these delivery systems is extended. However, in the long term, Congress must start considering new designs for the next generation of ICBMs, SLBMs, and bombers.

Step #5: Hold hearings on the need to maintain sufficient alert levels of operationally deployed nuclear forces.

As the draft Doctrine for Joint Nuclear Operations points out, high states of readiness for the operationally deployed nuclear force are necessary to respond quickly to no-notice nuclear attacks against the U.S., its forces, or its allies. September 11 demonstrated that surprise attacks are a hall-

mark of today's world. Regrettably, the DOD is coming under increasing pressure from arms control advocates to de-alert U.S. nuclear forces.¹² Congress should hold hearings on the matter of de-alerting, both to allow civilian and military leaders in the DOD to educate the public on why maintaining sufficient alert levels is critical to U.S. security and to allow the DOD leadership to explain why sufficient alert levels do not mean that U.S. nuclear weapons are either on a sort of hair trigger or easily launched by accident.

Step #6: Hold hearings on the requirements for nuclear stability in a proliferated setting.

The most difficult nuclear security problem facing the Bush Administration and Congress today is to assess how to maintain stability in an environment in which more than two nuclear-armed states are contending with each other and may resort to using their weapons. Cold War thinking regarding nuclear stability focused on the U.S.–Soviet rivalry and was dominated by analysis looking at the potential for two-sided conflicts, but nuclear proliferation is a part of today's reality.

This is a particularly pressing issue in important theaters, especially in East Asia, South Asia, and the Middle East. If adoption of the Doctrine for Joint Nuclear Operations is an important starting point in determining how to manage theater nuclear operations, it needs to be accompanied by an analytical process that examines the requirements for reducing the likelihood of nuclear conflicts within these theaters. Policymakers must begin to grapple with the complexities that are derived from nuclear multipolarity.

Conclusion

In the 1950s and 1960s, the Department of Defense, with congressional support, put enormous effort into creating an effective strategic nuclear deterrent. This initial burst of creativity proved essential to deterring the Soviet Union and

11. Jack Spencer, "The Electromagnetic Pulse Commission Warns of an Old Threat with a New Face," Heritage Foundation Backgrounder No. 1784, August 3, 2004, pp. 5–6, at www.heritage.org/Research/NationalSecurity/bg1784.cfm.

12. For an early argument in favor of de-alerting, see Bruce G. Blair, "De-Alerting Strategic Nuclear Forces," in Harold A. Feiveson, ed., *The Nuclear Turning Point: A Blueprint for Deep Cuts and De-alerting of Nuclear Weapons* (Washington, D.C.: Brookings Institution Press, 1999), pp. 101–128.

keeping the peace for the decades that followed. During the 1990s, the nation's nuclear infrastructure suffered from neglect, and the competitive edge was lost.

Responding to the strategic neglect that existed at the time, in 2002, the Department of Defense released a description of a congressionally mandated study called the Nuclear Posture Review. This forward-looking study recognizes that the U.S. strategic forces inherited from the Cold War are not well positioned to assure U.S. friends and allies regarding their security and to dissuade, deter, and defeat today's would-be enemies. The Nuclear Posture Review also seeks to restore the competitive edge in U.S. strategic programs by establishing a new strategic triad. This new strategic triad includes offensive forces, defensive forces, and a robust infrastructure consisting of both nuclear and conventional systems.

With a draft version of the Doctrine for Joint Nuclear Operations now in hand, the Department of Defense is poised to take a major step forward in reinvigorating U.S. nuclear policies and programs. This document merits the support of the American people, and DOD leaders should approve it as soon as possible.

When nuclear weapons are the issue, the stakes for national security are extremely high. Congress must recognize that when the new Doctrine for Joint Nuclear Operations is approved, military commanders will have new requirements to meet regarding nuclear planning and operations. Under these circumstances, Congress must ensure that these military commanders have the tools to execute the missions that they are assigned.

Specifically, Congress must modernize the nuclear arsenal in ways that will dissuade, deter, and if necessary defeat the kinds of enemies that the U.S. might face today and tomorrow. This means freeing the scientific and engineering communities to explore advanced concepts for strategic and nuclear forces and removing barriers to researching, developing, testing, and ultimately deploying new weapons. Finally, it means that Congress must familiarize itself with the complexities involved in managing nuclear stability in a world in which nuclear proliferation is a reality. Congress must not shirk this most important duty to the American people.

—*Baker Spring is F. M. Kirby Research Fellow in National Security Policy in the Kathryn and Shelby Cullom Davis Institute for International Studies at The Heritage Foundation.*