Report on Nuclear Employment Strategy of the United States Specified in Section 491 of 10 U.S.C.

The estimated cost of report or study for the Department of Defense is approximately $25,000 in Fiscal Years 2012-2013. This includes $20 in expenses and $25,000 in DoD labor.

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I. Purpose

The Secretary of Defense, on behalf of the President, is submitting this report on Nuclear Employment Strategy of the United States in accordance with Section 491 of 10 U.S.C. Section 491 states:

> By not later than 60 days before the date on which the President implements a nuclear employment strategy of the United States that differs from the nuclear employment strategy of the United States then in force, the President shall submit to Congress a report setting forth the following:
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> (1) A description of the modifications to the nuclear employment strategy, plans, and options of the United States made by the strategy so issued.
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> (2) An assessment of effects of such modification for the nuclear posture of the United States.
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> (3) The implication of such changes on the flexibility and resilience of the strategic forces of the United States and the ability of such forces to support the goals of the United States with respect to nuclear deterrence, extended deterrence, assurance, and defense.
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> (4) The extent to which such modifications include an increased reliance on conventional or non-nuclear strike capabilities or missile defenses of the United States.

With the President's issuance of new nuclear weapons employment guidance, this report is being provided in advance of implementation and, thus, fulfills the requirements of Section 491. Implementation of this new employment strategy will consist of updating Department of Defense (DoD) military guidance and plans over the next year.

II. Nuclear Posture Review Follow-On Analysis

In 2011, the President directed DoD, in consultation with other departments and agencies, to conduct in-depth analysis as a follow-on to the 2010 Nuclear Posture Review (NPR). The purpose of this analysis was to conduct a detailed review of U.S. nuclear deterrence requirements in order to align U.S. nuclear planning to the current and projected security environment.

The analysis assessed what changes to nuclear employment strategy could best support the five key objectives of U.S. nuclear weapons policies and posture outlined in the 2010 NPR:

1) Prevent nuclear proliferation and nuclear terrorism;
2) Reduce the role of U.S. nuclear weapons in U.S. national security strategy;
3) Maintain strategic deterrence and stability at reduced nuclear force levels;
4) Strengthen regional deterrence and reassure U.S. Allies and partners; and
5) Sustain a safe, secure, and effective nuclear arsenal.

The analysis further considered what options should be provided to the President in the event that deterrence fails, and so assessed a sixth assessed objective:

6) Achieve U.S. and Allied objectives if deterrence fails.

The United States seeks the peace and security of a world without nuclear weapons. This is a long-term goal, but it is imperative that we continue to take concrete steps toward it now. At the same time, we must maintain the safety, security, and effectiveness of the U.S. nuclear deterrent as long as nuclear weapons exist, without a return to underground nuclear testing (UGT).

The President's updated nuclear employment guidance takes a concrete step toward this goal while aligning U.S. nuclear employment policy with today's strategic environment. This new guidance marks only the third revision since the end of the Cold War, and the first since 2002. Updating U.S. nuclear employment strategy is critical to ensuring that the nation's nuclear plans and force posture continue to be adapted to a changing world.

This review was led by DoD, and included senior-level participation by the Office of the Secretary of Defense, the Joint Chiefs of Staff, U.S. Strategic Command, the Department of State, the Department of Energy, the Office of the Director of National Intelligence, and the National Security Staff.

III. Modifications to Nuclear Employment Strategy

The analytic team developed a range of nuclear employment strategy options for consideration, and conducted detailed military analysis of the potential implications of each strategy option for U.S. nuclear forces. Each option was analyzed using criteria derived from the six objectives described above. Based on this analysis, and on the advice of the Department of Defense and other participating departments and agencies, the President selected the nuclear employment strategy described in this report. This strategy has the support of the Commander of U.S. Strategic Command, the Joint Chiefs of Staff, and the Secretary of Defense.

The Strategic Environment

A key part of defining nuclear employment guidance is making an explicit assessment of the strategic environment. As stated in the 2010 NPR, the international security environment has changed dramatically since the end of the Cold War. The threat of global nuclear war has become remote, but the risk of nuclear attack has increased.

Today's most immediate and extreme danger remains nuclear terrorism. Al Qaeda and their extremist allies are seeking nuclear weapons. We must assume they would use such weapons if they managed to obtain them.

Today's other pressing threat is nuclear proliferation, in particular Iran and North Korea. The United States opposes and is committed to preventing Iran from acquiring a nuclear weapon, and does not accept the legitimacy of North Korean nuclear weapons efforts. We will work to

prevent further advancement and to reverse existing programs. The United States will continue to seek, through diplomacy, tightened international sanctions, and other measures, to hold both Iran and North Korea accountable for their continued violations of their international obligations and to bring them into compliance with their obligations.

While addressing the increasingly urgent threats of nuclear terrorism and proliferation, the United States must continue to address the more familiar challenge of ensuring strategic stability with Russia and China.

Russia currently fields strategic nuclear forces consisting of a triad of land-based intercontinental ballistic missiles (ICBMs), ballistic missile submarines, and long-range cruise missiles delivered by strategic bombers. In addition to these forces, Russia possesses a large nonstrategic nuclear force. Although differences between our countries continue to arise and Russia continues to modernize its nuclear forces, Russia and the United States are no longer adversaries, and the prospects of military confrontation between us have declined dramatically.

At the same time, Russia remains the United States' only peer in nuclear weapons capabilities. Although the need for numerical parity between the two countries is no longer as compelling as it was during the Cold War, large disparities in nuclear capabilities could raise concerns on both sides and among U.S. Allies and partners, and may not be conducive to maintaining a stable, long-term strategic relationship, especially as nuclear forces are significantly reduced. We therefore continue to place importance on Russia joining us as we move to lower levels of nuclear weapons.

The United States seeks to maintain strategic stability with Russia. Consistent with the objective of maintaining an effective deterrent posture, the United States seeks to improve strategic stability by demonstrating that it is not our intent to negate Russia's strategic nuclear deterrent, or to destabilize the strategic military relationship with Russia. Strategic stability would be strengthened through similar Russian steps toward the United States and U.S. Allies.

The United States is concerned about many aspects of China's conventional military modernization efforts and is watching closely the modernization and growth of China's nuclear arsenal. The lack of transparency surrounding its nuclear programs, specifically their pace and scope, as well as the strategy and doctrine that guides them, raises questions about China's long-term intentions.

The United States remains committed to maintaining strategic stability in U.S.-China relations and supports initiation of a dialogue on nuclear affairs aimed at fostering a more stable, resilient, and transparent security relationship with China.

Guidance for Nuclear Employment

The President's new nuclear employment guidance is consistent with the fundamentals of deterrence that have long guided U.S. nuclear weapons policy, but with appropriate changes to meet today's strategic environment.

Guiding Principles:

Consistent with decades-long practice, the President, as Commander in Chief of the U.S. Armed Forces, has the sole authority to order the employment of U.S. nuclear forces.

The President's guidance establishes the principles that will guide the role of U.S. nuclear forces, including:

- The fundamental role of U.S. nuclear weapons remains to deter nuclear attack on the United States and its Allies and partners.

- The United States will only consider the use of nuclear weapons in extreme circumstances to defend the vital interests of the United States, or its Allies and partners.

- The United States will maintain a credible nuclear deterrent capable of convincing any potential adversary that the adverse consequences of attacking the United States or our Allies and partners far outweigh any potential benefit they may seek to gain from such an attack.

- U.S. policy is to achieve a credible deterrent, with the lowest possible number of nuclear weapons, consistent with our current and future security requirements and those of our Allies and partners.

Nuclear Employment Planning Guidance:

Although the new strategy makes clear that we will maintain a strong and credible deterrent, it also makes clear that we must be prepared for the possibility that deterrence will fail. To support deterrence and provide options to the President in the event deterrence fails, it directs DoD to develop nuclear employment plans.

As stated in the 2010 NPR, the United States will not use or threaten to use nuclear weapons against non-nuclear weapons states that are party to the Nuclear Non-Proliferation Treaty (NPT) and in compliance with their nuclear non-proliferation obligations.

To align our nuclear planning with our assessment of today's environment, the guidance directs that DoD planning should focus on only those objectives and missions that are necessary for deterrence in the 21st century.

The new guidance requires the United States to maintain significant counterforce capabilities against potential adversaries. The new guidance does not rely on a "counter-value" or "minimum deterrence" strategy.

The new guidance makes clear that all plans must also be consistent with the fundamental principles of the Law of Armed Conflict. Accordingly, plans will, for example, apply the principles of distinction and proportionality and seek to minimize collateral damage to civilian

populations and civilian objects. The United States will not intentionally target civilian populations or civilian objects.

Reducing the Role of Nuclear Weapons:

The 2010 Nuclear Posture Review established the Administration's goal to set conditions that would allow the United States to safely adopt a policy of making deterrence of nuclear attack the sole purpose of U.S. nuclear weapons. Although we cannot adopt such a policy today, the new guidance reiterates the intention to work towards that goal over time. Toward that end, the new guidance directs DoD to undertake concrete steps toward reducing the role of nuclear weapons in our national security strategy.

DoD is directed to conduct deliberate planning for non-nuclear strike options to assess what objectives and effects could be achieved through integrated non-nuclear strike options, and to propose possible means to make these objectives and effects achievable. Although they are not a substitute for nuclear weapons, planning for non-nuclear strike options is a central part of reducing the role of nuclear weapons.

Recognizing the significantly diminished possibility of a disarming surprise nuclear attack, the guidance directs DoD to examine further options to reduce the role of Launch Under Attack plays in U.S. planning, while retaining the ability to Launch Under Attack if directed.

The U.S. Nuclear Hedge

Finally, the guidance outlines a deliberate strategy for hedging against risk in our nuclear stockpile. As part of this analysis, the Departments of Defense and Energy examined their long-standing hedge approach and developed a more efficient strategy that allows the United States to maintain a robust hedge against technical or geopolitical risk with fewer nuclear weapons. The implications of that new approach are discussed in detail below.

IV. Implications for the U.S. Nuclear Posture and Nuclear Stockpile

In addition to providing guidance on plans for the employment of nuclear forces, the new Presidential guidance provides direction for the posture of deployed forces, and our stockpile of non-deployed nuclear weapons.

Nuclear Force Posture

U.S. Nuclear Triad:

The new guidance states that the United States will maintain a nuclear Triad, consisting of intercontinental ballistic missiles (ICBMs), submarine-launched ballistic missiles (SLBMs), and nuclear-capable heavy bombers. Retaining all three Triad legs will best maintain strategic stability at reasonable cost, while hedging against potential technical problems or vulnerabilities. These forces should be operated on a day-to-day basis in a manner that maintains strategic stability with Russia and China, deters potential regional adversaries, and assures U.S. Allies and

partners. This includes continuing the practice of open-ocean targeting, so that in the highly unlikely event of any accidental or unauthorized launch of a U.S. nuclear weapon, the weapon would land in the open ocean.

Non-Strategic Nuclear Weapons:

The United States will also maintain the capability to forward-deploy nuclear weapons with heavy bombers and dual-capable aircraft in support of extended deterrence and assurance of U.S. Allies and partners. In Europe, a forward-based posture should be maintained, consistent with the 2012 North Atlantic Treaty Organization (NATO) Deterrence and Defence Posture Review, and until such time as NATO has agreed the conditions are appropriate to change the Alliance's nuclear posture.

Strategic Force Levels:

The nuclear force levels we will retain when the New START Treaty is fully implemented in 2018 are more than adequate for what the United States needs to fulfill its national security objectives. The new U.S. employment guidance will result in more effective and efficient planning of U.S. nuclear forces.

After a comprehensive review of our nuclear forces, the President has determined that we can ensure the security of the United States and our Allies and partners and maintain a strong and credible strategic deterrent while safely pursuing up to a one-third reduction in deployed nuclear weapons from the level established in the New START Treaty. The U.S. intent is to seek negotiated cuts with Russia so that we can continue to move beyond Cold War nuclear postures.

Although the new U.S. nuclear employment strategy would allow reductions below New START Treaty levels, the new employment strategy does not direct any changes to the currently deployed nuclear forces of the United States. As a next step, the new employment strategy will be translated into guidance from the Secretary of Defense and Chairman of the Joint Chiefs of Staff. That guidance will then inform the development of detailed contingency plans by the Commander, U.S. Strategic Command, and appropriate functional and Geographic Combatant Commanders.

The U.S. Nuclear Stockpile

Since the end of the Cold War, the United States has maintained a stockpile of additional non-deployed nuclear warheads as a hedge against the possibility of a technical problem in the arsenal, or a change in the international landscape that would alter the U.S. calculus about the necessary composition of its deployed nuclear forces.

As part of the NPR follow-on analysis, the Departments of Defense and Energy examined their approach to determining how many non-deployed weapons are required in this hedge. They developed an approach that will allow the United States to maintain a robust hedge against technical or geopolitical risk with fewer total nuclear weapons. Based on this approach, the new guidance directs that:

- The United States will maintain a sufficient number of non-deployed weapons to hedge against the technical failure of any single weapon type or delivery system at a time. Where possible, the United States will provide intra-leg hedge options – i.e., uploading another warhead type from within a leg of the Triad in the event that a particular warhead fails. In instances where the current stockpile will not allow intra-leg hedging, the United States will be prepared to hedge adequately using inter-leg hedging – uploading additional warheads on another leg of the Triad to compensate for the failure of a given type of warhead.

- DoD should maintain legacy weapons to hedge against the failure of weapons undergoing life-extension only until confidence in each Life-Extension Program (LEP) is attained.

- A non-deployed hedge that is sized and ready to address these technical risks will also provide the United States the capability to upload additional weapons in response to geopolitical developments that alter our assessment of U.S. deployed force requirements.

The new guidance reiterates the 2010 NPR objective of shifting from hedging with large numbers of non-deployed warheads towards a responsive infrastructure over time. The United States has begun to invest in a more modern physical infrastructure that would allow the United States to make this change. However, because such an infrastructure will not be available for another decade or more, the hedging approach based on retaining additional non-deployed warheads in the new guidance is prudent in the near term.

Investing in our nuclear enterprise remains a key component of our long-term approach to hedging against risk, in addition to being a necessary component of the safety, security, and effectiveness of our stockpile, without a return to underground nuclear testing. The United States has begun, and will continue, to invest in a modern physical infrastructure – consisting of the national security laboratories and a complex of supporting facilities – and a highly capable workforce with the specialized skills needed to sustain the nuclear deterrent. As long as nuclear weapons exist, the United States will work to maintain a safe, secure, and effective arsenal that guarantees the security of the United States and our Allies and partners.

V. Additional Implications

The new nuclear employment strategy will allow the United States to maintain the flexibility and resilience of U.S. strategic forces, and to support the United States' goals of nuclear deterrence, extended deterrence, assurance, and defense.

Resilience and Flexibility

The new employment guidance directs that DoD will maintain a sufficient, diversified, and survivable capability to provide at all times with high confidence the capability to convince any potential adversary that the adverse consequences of attacking the United States or our Allies and partners far outweigh any potential benefit they may seek to gain from such an attack. It

also preserves the flexibility to respond with a wide range of options to meet the President's stated objectives should deterrence fail. Specific initiatives that support these goals include:

- Reaffirming that the United States will maintain a nuclear Triad, which allows the United States to maintain strategic stability and operational flexibility at reasonable cost.

- Retaining the ability to "upload" strategic delivery platforms in response to geopolitical or technological surprise.

- Retaining the ability to forward deploy nuclear weapons with heavy bombers and dual-capable fighter aircraft in support of extended deterrence of potential adversaries, and assurance of U.S. Allies and partners.

- Providing the President more options by directing planning for non-nuclear strikes.

Nuclear Deterrence, Extended Deterrence, Assurance, and Defense

The President's new employment guidance directs that U.S. nuclear forces be postured and planned in a manner that maintains strategic deterrence and stability while still providing the capability to threaten credibly a wide range of nuclear responses if deterrence should fail. The President's new nuclear employment strategy will maintain strategic stability with Russia and China, strengthen regional deterrence, and reassure U.S. Allies and partners. In addition to setting these as explicit objectives, it provides guidance to DoD about the required capabilities to achieve those ends. Specifically:

- Nuclear Deterrence and Strategic Stability: The guidance makes clear that the United States seeks to maintain strategic stability with Russia and China. At the same time, the maintenance of a Triad and the ability to upload warheads ensures that, should any potential crisis emerge in the future, no adversary could conclude that any perceived benefits of attacking the United States or its Allies and partners are outweighed by the costs our response would impose on them.

- Extended Deterrence: The guidance makes clear that the United States should have a wide range of effective response options available to deter potential regional threats. These preparations should signal credibly that any perceived benefits of attacking the United States or its Allies and partners are outweighed by the costs our response would impose, and should provide substantial reassurance to our Allies and partners.

- Assuring U.S. Allies and Partners. In addition to sending a credible signal to regional adversaries, the guidance's affirmation that the United States will retain the capability to forward deploy nuclear weapons with heavy bombers and dual-capable fighter aircraft, as well as its direction to maintain a strong strategic deterrent, should reassure U.S. Allies and partners. In doing so, the guidance reaffirms the role of nuclear weapons in extending deterrence to U.S. Allies and partners and the U.S. commitment to strengthen regional deterrence architectures. The security and

defense of our Allies and partners is non-negotiable, and the United States will continue to consult closely with them on nuclear forces and posture.

Increased Reliance on Conventional or Non-Nuclear Strike Capabilities or Missile Defenses

DoD will conduct deliberate planning for non-nuclear strike options to assess what objectives and effects could be achieved through integrated non-nuclear strike options, and to propose possible means to make these objectives and effects achievable. Although they are not a substitute for nuclear weapons, planning for non-nuclear strike options is a central part of reducing the role of nuclear weapons.

As stated in the 2010 Nuclear Posture Review, although nuclear weapons have proven to be a key component of U.S. assurances to Allies and partners, the United States has relied increasingly on non-nuclear elements to strengthen regional security architectures, including a forward U.S. conventional presence and effective theater ballistic missile defenses. As the role of nuclear weapons is reduced in U.S. national security strategy, these non-nuclear elements will take on a greater share of the deterrence burden.