

What Will President Obama's Nuclear Legacy Be?

Four Steps That Would Save Taxpayer Dollars and Make Americans Safer

HIGHLIGHTS

President Barack Obama can still shape his nuclear legacy. The Union of Concerned Scientists is calling on President Obama to take four steps: reduce the number of deployed U.S. nuclear weapons; remove U.S. land-based missiles from “prompt-launch” status; cancel the proposed new nuclear-armed cruise missile; and declare that the sole purpose of U.S. nuclear weapons is to deter a nuclear attack on the United States and its allies.

President Barack Obama came to office in 2009 determined to reduce the nuclear weapons threat. Yet after early successes, the administration has made little progress in recent years. But it is not too late for measures that would enhance the president's legacy, save taxpayer dollars, and make every American safer.

President Obama has the authority to implement changes in nuclear weapons policy that would reduce the nuclear threat. In taking action he would be following in the footsteps of former Presidents George H.W. Bush and George W. Bush, both of whom slashed the number of U.S. nuclear weapons without consulting Congress or negotiating with the Soviet Union or Russia. They correctly determined that such reductions were in U.S. security interests and acted.

Announcing new steps before the April 2015 Nuclear Nonproliferation Treaty (NPT) Review Conference would make it more likely that participants will agree to a final document that strengthens the nonproliferation regime. Many non-nuclear weapon states in the treaty are growing increasingly impatient with the recent lack of progress. Without such progress, the risk that the NPT could collapse will increase.

President Obama should take steps to avoid that outcome. Below are four measures he can institute by executive order:

I. Reduce Deployed U.S. Strategic Forces

President Obama should reduce U.S. long-range nuclear weapons by a third, from 1,550 under the New START arms control agreement to 1,000 deployed warheads.



U.S. Air Force/Tech. Sgt. Bob Wickley

Two U.S. Air Force missile maintenance crewmen perform an electrical check on a Minuteman III intercontinental ballistic missile in its silo at Whiteman Air Force Base in Missouri. By using a simple safety switch that electronically isolates missiles from outside launch signals during such maintenance, the Obama administration could reduce dramatically the chances of a mistaken or unauthorized launch of U.S. missiles.

The number should be reduced independent of any reductions by Russia, although ideally Moscow would follow suit. Why does such a cut make sense?

- Based on the Pentagon's 2013 study implementing the 2010 Nuclear Posture Review (NPR), the president has already concluded that the United States can safely reduce its deployed long-range warheads to 1,000 (Obama 2013).
- Verification provisions in New START can corroborate such reductions without requiring a new treaty.
- A smaller nuclear force will reduce costs. The United States is currently preparing to spend \$1 trillion over 30 years to replace the entire nuclear triad (consisting of strategic bombers, intercontinental ballistic missiles, and submarine-launched ballistic missiles), which will force major program cuts in other areas.
- Despite Moscow's recent aggressive actions in Ukraine, Russia is likely to make similar nuclear cuts, especially given its recent economic troubles.

Objections to further reductions are politically motivated, rather than security-driven. When Presidents George H.W. Bush and George W. Bush made far larger unilateral cuts, Congress was silent.

Some U.S. allies may be concerned that reducing U.S. nuclear arms will embolden Russia. However, whether the United States has 1,550 deployed strategic warheads or 1,000 will not affect nuclear deterrence.

II. Remove U.S. Ground-based Missiles from Prompt-launch Status

Today, just as at the height of the Cold War, U.S. intercontinental ballistic missiles (ICBMs) are on "prompt-launch" alert, ready to be fired in minutes. This posture dramatically increases the likelihood of an accidental, erroneous, or unauthorized launch.

Indeed, today, the risk of such an unintentional launch is significantly greater than the risk of a deliberate nuclear attack. Recognizing this, as presidential candidates, George W. Bush and Barack Obama each declared their intent to remove U.S. nuclear weapons from prompt-launch status.

THE RE-ALERTING RACE

Why did neither, as president, act on their intentions? A key reason is that some military leaders raise concerns that such a change could lead to a "re-alerting race."

Prompt-launch status dramatically increases the likelihood of an accidental, erroneous, or unauthorized launch.

Assume the United States and Russia both removed their ICBMs from rapid-launch posture. If a military crisis emerged, some worry that one country might decide to return its missiles to prompt-launch status, which might cause the other country to do the same, starting a race to re-alert, which could heighten the crisis.

This picture, however, is incomplete. If the United States, for example, decided to increase the readiness of its forces in response to a crisis, many actions beyond increasing the alert status of its ICBMs would be involved. A focus on that single measure is misplaced.

Some even argue that in a worst-case scenario, Russia might attempt a quick nuclear strike to destroy U.S. ICBMs before they could be re-alerted. But that argument ignores the fact that nuclear deterrence would remain strong since the majority of U.S. nuclear weapons are on submarine-based missiles, which are invulnerable to attack when hidden in the ocean.

HOW TO MAKE U.S. MISSILES SAFER

The Air Force should employ the "safing" switch that prevents launch while maintenance crews are working in a missile silo. When the switch is in the safe mode, it prevents communications between the missile and launch center, essentially eliminating the chance of an accidental, erroneous, or unauthorized launch.

To be clear, mutual U.S.–Russian actions are the goal. This Union of Concerned Scientists (UCS) proposal is intended as a first modest step.

III. Cancel the Proposed New Nuclear-armed Cruise Missile

The Obama administration is proposing to develop a new, nuclear-armed cruise missile, the Long Range Stand-Off (LRSO) weapon. It would replace the existing Air-Launched Cruise Missile (ALCM), due for retirement in 2030. The LRSO would be stealthy and much more capable than the ALCM: faster, more accurate, and longer-range.

Those improvements, however, are at odds with President Obama's stated intentions. In Prague in 2009, he committed to reducing the role of nuclear weapons in U.S. security policy and to ending "Cold War thinking" (Obama 2009). The 2010 NPR reaffirmed that intent and elaborated on it by declaring that the United States "will not support new military missions or provide for new military capabilities" (DOD 2010).

Supporters of the LRSO use dangerous thinking. For example, on June 24, 2014, Frank Kendall, as chair of the joint Pentagon–National Nuclear Security Administration (NNSA) Nuclear Weapons Council, sent a letter to congressional appropriators highlighting the "flexibility" the new cruise missile would provide, including the ability to "signal intent" and "control escalation" (Kendall 2014).

Given that a nuclear war has never been fought, no one can have confidence that using a nuclear-armed cruise missile would "control escalation."

Rather than controlling escalation, nuclear-armed cruise missiles risk unintended escalation. As Philip Hammond, then the U.K. secretary of state for defense, noted when Britain recently considered alternatives to its submarine-based nuclear-armed missiles, "At the point of firing, other states could have no way of knowing whether we had launched a conventional cruise missile or one with a nuclear warhead. Such uncertainty could risk triggering a nuclear war at a time of tension" (Hammond 2013).

RELIABILITY TROUBLES

Cruise missiles follow a path determined by matching a radar image of the terrain below to maps stored in onboard computers. Experience shows, however, they can get lost and land far from the intended target. If that happens, the weapon would not detonate. Instead, after a soft landing, the missile can slide to a stop carrying an intact nuclear warhead.

During the Second Gulf War in 2003, conventionally armed cruise missiles fired at Iraq failed around 1 percent of the time. Unexploded cruise missiles landed in Iran, Saudi Arabia, and Turkey. While that is troubling with conventional weapons, it would be a massive problem with a nuclear warhead. Security features on the warhead would prevent its use as is, but it would still leave a substantial amount of weapons-grade nuclear material and an advanced bomb design that could fall into the wrong hands.

MONEY MATTERS

There are no public cost estimates yet for the LRSO cruise missile. Unofficially, some have estimated the cost of developing the new missile between \$8 billion and



Turkish soldiers inspect a U.S. Tomahawk cruise missile targeting Iraq that fell on Turkish territory on March 29, 2003. In the second Gulf War, as many as nine cruise missiles landed in Iran, Saudi Arabia, and Turkey. If the warheads had been nuclear rather than conventional, the intact missiles would have left behind a substantial amount of weapons-grade nuclear material and an advanced bomb design.

\$10 billion, not including the cost of the warhead. In 2014, the NNSA initially estimated the cost of extending the life of the warhead that would be used in the LRSO between \$8 billion and \$12 billion in then-year dollars, but recently lowered the estimate to between \$6 billion and \$9.5 billion. As with almost all Pentagon and NNSA projects, final costs are likely to be higher.

However, the LRSO cruise missile is only one part of the Air Force's plans. The Air Force is already developing the Long-Range Strike Bomber, a new "penetrating" airplane (i.e., capable of penetrating an enemy's air defenses), and updating the B61-12 nuclear gravity bomb it will carry. The bomber will cost upwards of \$70 billion and the B61 \$12 billion.

What is the need for a stand-off cruise missile if the Air Force has a penetrating bomber with a gravity bomb? The two capabilities are redundant. Advocates of the new LRSO cruise missile cite concerns about potential improvements in enemy air defenses, but in that case the United States should not be spending money on a penetrating bomber. In addition, U.S. long-range nuclear-armed ballistic missiles can reliably penetrate advanced air defenses.

Canceling the LRSO weapon would also lay the groundwork for eliminating this destabilizing class of nuclear weapons globally.

Giving nuclear weapons roles beyond deterring nuclear attack is both counterproductive and unnecessary.

IV. Declare that the Sole Purpose of U.S. Nuclear Weapons is Nuclear Deterrence

President Obama should declare that the sole purpose of U.S. nuclear weapons is to deter a nuclear attack on the United States and its allies, and to respond to such an attack if necessary.

As part of the 2010 NPR, the Obama administration took steps in this direction. The review stated:

*The fundamental role of U.S. nuclear weapons, which will continue as long as nuclear weapons exist, is to deter nuclear attack on the United States, our allies, and partners. . . . The United States will continue to strengthen conventional capabilities and reduce the role of nuclear weapons in deterring non-nuclear attacks, with the objective of making deterrence of nuclear attack on the United States or our allies and partners **the sole purpose of U.S. nuclear weapons** (DOD 2010, emphasis added).*

The 2010 NPR also declared that the United States would not use or threaten to use nuclear weapons against any country that does not possess nuclear weapons and is in compliance with its nuclear nonproliferation obligations. In particular, the 2010 NPR declares that, even if attacked with chemical or biological weapons, the United States would not use nuclear weapons in response. The NPR also ended the policy of permitting U.S. nuclear attacks on non-nuclear countries allied with nuclear-armed states.

The 2010 NPR, however, cited “a narrow range of contingencies in which U.S. nuclear weapons may still play a role in deterring a conventional or CBW [chemical or biological weapons] attack against the United States or its allies and partners.”

This perspective is shortsighted. Giving nuclear weapons roles beyond deterring nuclear attack is both unnecessary and counterproductive. Nuclear weapons add little to the deterrence that U.S. conventional forces already provide against non-nuclear attacks, or to the United States’ ability to respond to such attacks. In addition, if U.S. policy treats nuclear weapons as valuable tools with multiple uses, then other countries may be more inclined to seek nuclear weapons. Finally, U.S. security is enhanced by maintaining and strengthening the international consensus against the use and proliferation of nuclear weapons.

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