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U.S. Nuclear Triad: You Get What You See

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The most survivable element of the U.S. nuclear arsenal may wind up being the triad itself

Overcoming Armageddon

When President Barack Obama declared that his national security officials agree they can cut the U.S.'s deployed, strategic nuclear arsenal by up to one-third beyond planned limits if Russia and the U.S. ratified a new nuclear-reduction treaty, he received the expected, seemingly knee-jerk, criticism from the far left and right of the American political spectrum.

But what came as a surprise was the political resistance that quickly sprung from the middle of both parties, despite their historic, bipartisanship support of nuclear cuts from the Nixon administration's original Strategic Arms Limitation Talks to the latest iteration of a Strategic Arms Reductions Treaty (Start) early in Obama's term.

Take centrist politicians from the Great Plains. “A strong ICBM [intercontinental ballistic missile] force is absolutely critical to our national defense strategy, and I won't support anything that puts our American security in jeopardy,” says Democratic Sen. Max Baucus of Montana, where Malmstrom AFB and its roughly 4,000 workers are responsible for one of three Minuteman III ICBM fields. He and Sen. Jon Tester (D-Mont.) issued a joint communique with the state's lone congressman, a Republican, after
Obama's June 19 speech in Berlin.

Why are the moderates suddenly resisting?
Because unlike in previous rounds of nuclear reductions, further cuts to warhead inventories now will spur existential questions of the “delivery platforms” on which they are flown. Analysts and officials across the field believe that cuts beyond the 1,550 deployed strategic warheads on 800

platforms mandated under the New Start treaty with Russia by February 2018 would put one or more legs of the triad of U.S. nuclear-armed bombers, submarines and land-based ICBMs at risk. This is especially likely because costs and federal spending have gained prominence in Washington.

Still, Montana's congressional caucus and everyone else concerned with cuts can breathe easier, as there is little cause to worry in their lifetime, starting with the fact that Russia seems opposed to any additional Start-like deals. But it is also because an unprecedented slew of forces beyond just politics and foreign relations—including military and economic—are combining to keep the U.S. nuclear triad alive and well for decades to come.

"We see this as the best means to continue to promote strategic stability at a reasonable cost, while hedging against either technical problems or future vulnerabilities," says James Miller, undersecretary of defense for policy. That is despite Obama's Pulitzer-Prize winning vision of a world without nukes, the 2011 Budget Control Act with its threat of annual sequestration cuts over a decade and the fact that each triad leg—and the warheads they carry—will have to undergo high-priced upgrade or life-extension programs in the next 20 years.

It was never supposed to be this way. As an October report from the Congressional Research Service (CRS)—and countless books and essays before that testify to—the U.S. triad owes more to early Cold War interservice military rivalry than anything else. While none of the military departments necessarily wanted to take on nuclear duties, due to fears of competing with traditional air, sea and land-power missions, neither did they want another branch to win more funding or political importance by doing so. Only later in the 1960s and '70s did defense analysts develop a rationale for the nuclear triad that had evolved.

The U.S. has cut its nuclear stockpile by more than 80% since its Cold War peak, leaving the smallest stockpile since the Eisenhower administration (see chart). But triad-support has prevailed all along, and it has been reaffirmed by every administration through Obama and his June proposal to Russia, let alone his 2010 Nuclear Posture Review.

The rationale goes like this: Submarine-launched ballistic missiles (SLBM) serve as the ultimate second-strike, i.e., strike-back capability, because deep-sea boomers are practically impossible to track down and sink altogether. Bomber- and fighter-borne gravity bombs and cruise missiles offer the White House the flexibility to call off, change targets or shape explosive effects; they also make an effective show-of-force, such as when the B-2 sortie overflew South Korea in March. Finally, ICBMs—via their geographic dispersion and size, with up to 420 Minutemans and 450 silos now planned—necessitate an attacking nuclear force at least twice that size to be eliminated so that any adversary is fiscally and operationally dissuaded to mount a surprise nuclear attack.

Antinuclear activists disagree, of course, but so do more mainstream critics like those at libertarian, arms-control and other organizations. A smaller arsenal comprising current and future boomers and Trident II (D-5) SLBMs could save roughly $20 billion annually up front while still deterring attacks on the U.S. and allies, claims a CATO Institute report last month. A missile dyad is more "politically feasible," but saves less. CATO analysts hope budget austerity

now might finally rein in overgrowth in the arsenal. “While austerity heightens competition for Pentagon resources, service leaders may see nuclear missions as red-headed stepchildren that take from 'true sons,'” says the End of Overkill report.

Meanwhile, Marshall Institute Director Robert Butterworth wonders whether an even more incremental, phased approach, compared with current Pentagon and National Nuclear Security Administration (NNSA) upgrade and life-extension plans, would provide more “bang for the buck.” He says the stepwise approach of the Long-Range Strike Bomber (LRS-B)—first conventional, then nuclear-qualified, and potentially unmanned-certified later—could be replicated elsewhere in the triad.

Hans Kristensen of the Federation of American Scientists also emphasizes that world nuclear threats now do not reflect the polarity of the Cold War, which bred the triad and warheads on hand, so simply doubling down on them may not be the best use of funds. If nothing else, due to their deep condemnation by most of the world's nations, they represent the ultimate futility in weapons-spending. “You can't do much with nukes,” he says.

But conservative and pro-nuclear advocates say budget-driven leg amputations, possibly followed later by rebuilding them if need be, would send unintended signals of weakness or aggression to adversaries and allies. These critics, some who served Republican presidents, assert that Japanese, South Korean and some eastern NATO allies have privately begun to question their reliance on the U.S. nuclear umbrella in light of arsenal reductions (see table).

Further, Elbridge Colby, of the Center for Naval Analyses, picks up on Kristensen's themes ofcosts and utility, but argues that complaints about either belie the consequences of not renewing the “insurance policy” that the triad represents. “When we think about decisions about the triad, we must think in terms of decades and even half-centuries, since this is the planning horizon for these decisions,” he says. “Are we so different than our parents, grandparents and great-grandparents?”

According to Colby, officials have suggested that the annual expense of the military nuclear arsenal is around $16 billion in the Pentagon's budget, and another $15 billion in NNSA's. “Nuclear weapons today, all in, probably cost something in the vicinity of 5 percent of the total defense budget, writ large,” he says. That has been the case since the end of the Cold War and will be through this decade.

Interestingly, two of the three legs—the LRS-B and Minuteman upgrades—appear to be foregone conclusions in budget and planning circles. The Air Force has been carrying out at least six programs designed to improve the accuracy and reliability of the Minuteman fleet, including warheads, and to extend the fleet's service life through 2030. The cost is estimated to be $6-7 billion, with most of it spent or obligated already, CRS reports.

The LRS-B, in the meantime, seems secure in its dual roles, and the fact is that certifying it for nukes is a relatively minor cost once the bomber is built. “Nuclear capabilities, or the need for a bomber leg of the nuclear triad, will not drive the discussion or analysis,” CRS writes. “Most

discussions about the bomber force focus on how many bombers, and what types of bomber weapons the United States needs to bolster its conventional long-range strike capability."

In the end, it is only the SSBN(X) that is causing proverbial heartburn. The Navy's pre-sequestration plans called for 12 ships, which the Navy pegs at around $60 billion. However, the historically more-accurate Congressional Budget Office (CBO) says it would be $97-102 billion, $10-15 billion of which is research and development alone. But no matter what figure is used, the Navy acknowledges that it has not accounted for SSBN(X) costs in its 30-year shipbuilding plan—which CBO says is significantly underfunded, even before boomers are included—because to do so, would crowd out acquisition of up to 32 other naval vessels.

In turn, in an extraordinary request now being reviewed on Capitol Hill, the Navy in September asked Congress to consider setting up an annual $4 billion supplemental fund for the SSBN(X) outside the Navy's budget, literally funding it as if it were a national asset supported by the whole Defense Department.

There continues to be a debate about the ultimate number of SSBN(X)s, with proposals calling for as few as eight. But only a minority of analysts and officials in Washington doubt whether to pursue them—not even CATO and other triad critics. Instead, as at the start of the Cold War, the question is whose budget bears the brunt.

Possible U.S. Strategic Nuclear Forces Under New Start

	Estimated Forces, 2010	**Possible Forces Under New Start, 2018***			
	Launchers	**Warheads**	**Total Launchers**	**Deployed Launchers**	**Warheads**
Minuteman III	450	500	420	400	400
Trident	336	1,152	280	240	1,090
B-52	76	300	74	42	42
B-2	18	200	18	18	18
Total	880	2,152	792	700	1,550