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From Triad to Dyad

By Christopher A. Preble

The United States' nuclear stockpile has decreased dramatically since the end of the Cold War, from over 22,000 warheads to 5,200 as of December 2009, of which 2,200 strategic, and another 500 tactical, are actively deployed. Many factors led to this decline, but none was more important than the collapse of the Soviet Union, the main actor this arsenal was meant to deter. Today, as the Perry-Schlesinger Commission Report explains, "The nuclear deterrent of the United States need not play anything like the central role that it did for decades in U.S. military policy and national security strategy. But it remains crucial for some important problems." A fundamental debate on the importance of nuclear weapons in U.S. military policy—and of the force structure to support nuclear detterence—is sorely needed.

Deterrence is psychological. It is based on a would-be attacker's perception of the ability of the targeted country or regime to retaliate. A credible deterrent, by this definition, could be less than one-fifth the size of our current arsenal, and might number no more than 500 strategic warheads. By that logic, for example, five ballistic missile submarines, each carrying 96 thermonuclear warheads, would be sufficient to deter any leader foolish enough to even contemplate a strike on the United States.

But numbers of warheads are not, and never have been, the only consideration. In the interest of ensuring a survivable retaliatory capability, we might choose to retain some number of warheads available for rapid deployment on Air Force bombers, or deployed on Minuteman III intercontinental ballistic missiles (ICBMs) located in silos in the continental United States. In short, it makes sense not to put all of our eggs in one basket.

This was the rationalization for the nuclear triad, created in the late 1950s, as the U.S. arsenal surpassed 10,000 in the midst of a bitter arms race with the Soviet Union. The bombers came first. Then missiles, initially deployed from forward locations, and eventually ICBMs that could be launched from the United States. The third leg of the triad, submarine-launched ballistic missiles (SLBMs), came on line in late 1960, with the deployment of the USS *George Washington*, the first Polaris submarine.

Estimates vary, but the U.S. arsenal peaked in 1967 at around 32,000 warheads—many of these tactical, battlefield weapons—and the total number has fallen steadily ever since. Per the terms of the Strategic Offensive Reduction Treaty, the U.S. strategic arsenal is required to number between 1,700 and 2,200 deployed warheads by the end of 2012. The United States reduced its forces below the upper limit in late 2008.

Even if one questions the wisdom, or even the morality, of developing nuclear weapons in the 1940s, and of deploying them in large numbers in the 1950s and 1960s, the decision to do so at multiple locations and on a variety of different delivery vehicles was strategically defensible. However, although it is difficult to say precisely when, at some point the triad went from being prudent to questionable, and, ultimately, from questionable to absurd. In the near future, as the number of strategic warheads continues to fall—some predict that the follow-on START treaty might stipulate no more than 1,675 warheads and 800 delivery vehicles—the absurdity of maintaining the triad only grows. It is simply nonsensical to retain a cold war force structure more than 20 years after the fall of the Berlin Wall. The time when the United States had more than 20,000 warheads, and was fac-

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is dedicated to promoting peaceful resolutions to the nuclear crises in North Korea and Iran. It aims to provide policy makers with analysis on the latest developments in both nations and options for formulating coherent U.S. responses. In highlighting the importance of achieving diplomatic solutions, the goal is to avoid armed conflict and its attendant consequences.

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ing a comparably armed adversary with forces on hair-trigger alert, has thankfully long since ended, and is unlikely to ever return.

In that context, consider, for example, the current policy of maintaining 14 ballistic missile submarines (SSBNs). Today, to comply with various arms control agreements, an SSBN is deployed with its full complement of crew, but with the missiles themselves carrying fewer than half the number of warheads that they were initially designed to carry. Will we, sometime in the future, deploy these same vessels with only half of their missile tubes filled? Similar criticisms could be rendered against Minuteman ICBMs, designed to carry three warheads, but which are being refitted to carry just one, or manned bombers, some of which are capable of carrying up to 20 nuclear weapons.

Much of the pressure to retain all three legs of the triad comes from domestic constituencies, the communities that derive support from the major facilities where the strategic forces are deployed. While recognizing that politics has influenced strategy and force structure, and will in the future, the decision criteria applied to the triad here are solely concerned with the strategic merit. This is a necessary starting point if an honest public debate is ever to take hold.

Claims that we must retain capabilities even if they are not essential, per se, to present-day deterrence so that we do not lose the capacity to change course in the future should also be treated with skepticism. It seems those presenting this case have limited faith in the ability of the United States to recover such assets relatively quickly should they ever be required, something that is extremely unlikely in any event.

The bottom line is we don't need—on the basis of strategic necessity—all three legs of the nuclear triad. As discussed, the survival of any one of the distinct legs of the deterrent might be attributed to the political influence of legislators determined to preserve a base or a manufacturing facility in their district or state, in other words to satisfy the interests of a relatively small number of voters. Pressure and resistance will also come from within the military, although this is likely to be fairly muted. However, if the Air Force and Navy, plus the attendant labs and storage facilities, push to retain a particular leg of the triad on anything other than strategic grounds, such narrow, institutional considerations should not determine the composition of our forces. As we continue to make deep cuts in our nuclear arsenal, the strategic triad should become a dyad, and we should debate the merits of bombers versus ICBMs versus SLBMs using a specific set of objective criteria.

Cost is one of the criteria, but certainly not the only one. Among the other decision criteria that should inform this debate are the following:

- ***Reliability***—Have the systems performed well, historically, and can they be counted on in the unlikely event that they are ever needed?
- ***Flexibility***—Can the systems be easily adapted to serve multiple missions, including those unrelated to nuclear deterrence?
- ***Command and control***—including the ability to recall assets after they are launched.

An analysis based on purely strategic criteria provides the essential foundation for examining the costs and benefits of each leg of the triad and allows for serious consideration of their utility individually.

If we work through these and other decision criteria, and engage in a sober and fair-minded critique of each of the legs of the triad, we can be confident that the transition from a nuclear triad to a nuclear dyad will be driven not by parochial political considerations, but rather—and solely—by the strategic merit of the forces and platforms that we retain. ■

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