Zero Deterrent?

By Mark Schneider

The Global Zero commission proposes radical cuts to the US nuclear deterrent, including total elimination of all ICBMs.

In May, a prominent commission led by retired Marine Corps Gen. James E. Cartwright issued a report outlining a number of proposals that would slash nuclear weapons and profoundly affect nuclear deterrence.

It was Cartwright's role as chairman of the Global Zero US Nuclear Policy Commission that made this report noteworthy. The general had recently retired as vice chairman of the Joint Chiefs of Staff and previously oversaw the US nuclear deterrent as commander of US Strategic Command.

Cartwright was joined in the report by former Ambassador Richard R. Burt, former Sen. Charles T. Hagel (R-Neb.), former Ambassador to the United Nations Thomas R. Pickering, and retired Marine Corps Gen. John. J. Sheehan.

The report's findings were promptly rejected by Gen. Norton A. Schwartz, Air Force Chief of Staff, who said, "I don't agree with his assessment or the study."

The Global Zero report proposes the US:

- Eliminate all ICBMs.
- Eliminate all tactical nuclear weapons.
- Eliminate the nuclear cruise missile inventory.
- Retire the B-2 bomber decades before its service life is reached.
- Dismantle or convert all B-52 bombers to carry only conventional munitions.
- Eliminate four of the 14 Trident submarines and download the rest to 45 warheads per boat.

Ultimately, the Global Zero report suggests the US cut its nuclear force to 900 total warheads, only half of which would be available for use at any time. The "de-alerted" remainder could be restored to operational status only weeks or months after a decision to regenerate them. Overall, the proposals would reduce the current US strategic nuclear inventory by more than 75 percent in terms of available warheads.

Similar recommendations have been made before by various arms control or anti-nuclear groups but never with the endorsement of a recent top-level former general with a nuclear portfolio such as Cartwright's.

The US government has long supported the goal of totally eliminating nuclear weapons but only in the context of general and complete disarmament. During the 1980s, President Reagan linked the elimination of nuclear weapons with the deployment of extremely effective missile defenses.

Robert M. Gates in 2008, as Secretary of Defense, said, "Three Presidents I worked for during the Cold War—Jimmy Carter, Ronald Reagan, and George H.W. Bush—genuinely wanted to eliminate all nuclear weapons and said so publicly. ... But all have come up against the reality that as long as others have nuclear weapons, we must maintain some level of these weapons ourselves."

For his part, President Obama has endorsed the goal and recognized its long-term nature.

"The United States will take concrete steps toward a world without nuclear weapons. … We will reduce the role of nuclear weapons in our national security strategy and urge others to do the same," Obama said in an April 2009 Prague speech about nuclear weapons, before immediately adding, "Make no mistake: As long as these weapons exist, the United States will maintain a safe, secure, and effective arsenal to deter any adversary and guarantee that defense to our allies."

"I'm not naïve," the President said. "This goal will not be reached quickly—perhaps not in my lifetime."

The recommendations of the Global Zero panel differ from those of the 2009 strategic posture commission, which urged reductions but didn't push a specific number of nuclear warheads. It also recommended the nuclear triad be maintained for the immediate future and supported its modernization. That panel called for a nuclear stockpile that is "safe, secure, and reliable and whose threatened use in military conflict would be credible" but cautioned that conditions favorable to a worldwide abolition of nuclear weapons "are not present today, and their creation would require a fundamental transformation of the world political order."

The Global Zero report, on the other hand, comes close to the rejection of extended nuclear deterrence and presents the notion of the US nuclear umbrella as an old-fashioned "20th century" concept.

DOD photo by Mass Comm. Spec. 1st Class Chad J. McNeeley

Retired Gen. James Cartwright, here on active duty, led US Strategic Command, making his position as chairman of the Global Zero nuclear policy commission surprising.

NATO clearly does not endorse a zero option. The NATO 2012 Heads of State and Government Summit statement, issued only a few days after the Global Zero report's publication, said, "NATO is committed to maintaining an appropriate mix of nuclear, conventional, and missile defense capabilities for deterrence and defense to fulfill its commitments as set out in the strategic concept."

NATO went on to observe that "missile defense can complement the role of nuclear weapons in deterrence; it cannot substitute for them."

Further, NATO's statement on the results of its Deterrence and Defense Posture Review reads, "Nuclear weapons are a core component of NATO's overall capabilities for deterrence and defense alongside conventional and missile defense forces."

Putting it more bluntly, the ministers said, "As long as nuclear weapons exist, NATO will remain a nuclear alliance."

Differing World Views

Asserting that "security is mainly a state of mind, not a physical condition," the Global Zero panel instead argues that nuclear forces can be cut deeply because "several hundred experts" surveyed by the Council on Foreign Relations do not believe Russia threatens the US.

Both Russia and China are extensively modernizing their nuclear forces, and both have announced the intent to expand their nuclear forces from existing levels. Moreover, both make nuclear threats; Russia's are particularly blatant and emanate from the highest levels of the Russian government.

While he was President of Russia in 2007 and 2008, Vladimir Putin—who has again assumed the title—made four separate threats to target US allies and friends. Another threat, directed toward missile defense sites in Europe, came from then-President Dmitry Medvedev.

Overall, Russian Presidents, Chiefs of the General Staff, commanders of the Strategic Missile Forces, and generals representing the Defense Ministry have made about 15 separate threats to either target missile defense facilities or make a pre-emptive nuclear attack. In fact, just a few days before the publication of the Global Zero report, Chief of the Russian General Staff Gen. Nikolai Makarov overtly threatened a pre-emptive—and implicitly nuclear—attack against NATO states.

In 2009, the US Strategic Commission pointed out, "Some US allies located closer to Russia ... are fearful of Russia and its tactical nuclear forces. ... The need to reassure US allies and also to hedge against a possible turn for the worse in Russia (or China) points to the fact that the US nuclear posture must be designed to address a very broad set of US objectives, including not just deterrence of enemies in time of crisis and war, but also assurance of our allies and dissuasion of potential adversaries."

The Global Zero report describes a targeting strategy that can't be accomplished by its force recommendations. The panel suggested the US direct its strategic weapons toward the following targets:

- Russia: Weapons of mass destruction (325 warheads, including two-on-one strikes against every missile silo), leadership command posts (110 warheads), and war-supporting industry (136 warheads). Eighty warheads would cover Moscow alone.
- China: WMD (85 warheads, including two-on-one strikes against every missile silo), leadership command posts (33 warheads), and war-supporting industry (136 warheads).
- North Korea, Iran, Syria: Each country would be covered by 40 warheads.

This is presumably the best warhead allocation that Cartwright, who oversaw US targeting for several years, could devise for such a small force. Still, it is far more comprehensive than what could be achieved with the inventories the Global Zero panel proposed. The report states that 900 warheads would be retained, yet assigns targets for at least 945 of them. Of the 900, only 450 would be deployed; the remainder would be "reserve warheads." Of those, most would be available in "weeks to months."

Under the Global Zero proposals, day-to-day deterrence would come exclusively from submarine-launched ballistic missiles. The Trident submarines would be uploaded from 360 to 720 warheads, but the panel also assumes unrealistic Trident submarine availability (six submarines at sea day-to-day out of 10 retained). Of today's 14 Trident submarines, only four or five are at sea at any given time. With a reduced force of 10 submarines, realistically the Global Zero force would be able to call on only 135 to 180 survivable Trident warheads—against a targeting strategy requiring 945.

Similarly, the panel calls for 18 B-2 bombers on nuclear alert with the ability to maintain 100 percent generated alert for extended periods.

Too Reserved

Global Zero's "reserve warheads" are not an operational force, but rather what the Bush Administration called a "responsive capability" or what the Clinton and the Obama Administrations referred to as an "upload hedge."

Meanwhile, the Global Zero nuclear delivery force would be vulnerable to a small-scale surprise nuclear attack because of the elimination of the ICBM force.

Even the deployed force would be vastly different from the deployed warheads described in the 1994, 2001, and 2010 Nuclear Posture Reviews. The Global Zero report states, "The deployed forces of 450 warheads would be de-alerted and require a small number of days (24 to 72 hours) to become launch ready." The Nuclear Posture Reviews of the Clinton, Bush, and Obama Administrations, however, unanimously rejected de-alerting.

This smaller, less-ready force will be tasked with deterring or defeating a difficult and toughening set of targets.

Cartwright's targeting plan discusses target coverage rather than damage expectancy, which is arguably more relevant to deterrence. The plan ignores the fact that both Russia and China have announced their intent to deploy missile defenses. Unlike US missile defense plans, aimed at defending against Iran and North Korea, the Russian and Chinese plans are aimed at defending against the United States. Both Russia and China are also improving their air defenses.

Makarov has said that Russia intends to create a nationwide missile defense system that is "impenetrable." Russia plans 10 battalions of S-500 missiles, designed to intercept strategic ballistic missiles by 2020. At a minimum, this appears to be at least 10 times as many strategic ballistic missile interceptors as currently planned by the US, and deployments are almost certain to continue after 2020. The S-500 will reportedly also be nuclear-armed. The commander of the Russian surface-to-air missile troops has said, "The task of destroying intercontinental ballistic missiles will be set for the Russian Air Force starting from 2015."

China's announced commitment to missile defense was reiterated in the 2010 defense White Paper which linked missile defense to its broader strategy of "active defense."

The People's Liberation Army Air Force, the White Paper noted, "is working to ensure the development of a combat force structure that focuses on air strikes, air and missile defense, and strategic projection, to improve its leadership and command system and build up an informationized, networked base support system." Although it has successfully tested a missile defense

interceptor, China is well behind Russia in missile defense but will probably have a nationwide missile defense system deployed by the late 2020s.

Despite this, the Global Zero proposal allocates no warheads for defense suppression and decimates many of the weapons most effective against enemy defenses. The eliminated ICBMs are the only element of the US missile force that reportedly have missile defense countermeasures. Vastly reduced warheads may not be able to overwhelm an adversary's defenses. The proposal also eliminates the US nuclear cruise missile force, which could be used to evade ballistic missile defenses and increase the number of attackers an adversary's air defenses must cope with.

In the case of a surprise nuclear attack against US allies, even on a regional basis, the US would—deliberately—have no technical ability to respond until 24 to 72 hours after the attacks began. Adoption of such a policy would likely generate considerable concern among some US allies.

Indeed, less than two weeks after the North Korean nuclear test in 2006, the government of South Korea demanded and received assurances of immediate support from the US, including continuation of the extended deterrence offered by the US nuclear umbrella.

The warhead totals allocated to targets in Iran, Syria, and North Korea under the Global Zero report appear to be round numbers related to reduced warhead availability rather than any real deterrence or war plan. The number assigned to each—40—seems unrelated to the potential actual number of nuclear targets in these states.

US allies recognize the value of a strong nuclear deterrent. NATO declared, "The supreme guarantee of the security of the allies is provided by the strategic nuclear forces of the Alliance, particularly those of the United States; the independent strategic nuclear forces of the United Kingdom and France, which have a deterrent role of their own, contribute to the overall deterrence and security of the allies."

Convincing American allies to accept a situation in which the US can't respond in kind to a nuclear attack for one to three days is likely to be a hard sell. US strategic missile defense wasn't designed against the current Russian and Chinese strategic missile threat and the US has repeatedly stated it has essentially no capability against them.

Over the last decade, the number of threat missiles has increased about four times as fast as the US has increased its inventory of mobile interceptors that can be forward deployed to protect its allies and forces abroad from theater attack. As NATO asserted in its nuclear security statements, missile defenses are badly needed but are no substitute for nuclear deterrence.

Global Zero asserts conventional forces and missile defenses may "offer a far superior option for deterring and defeating a regional aggressor, arguing that "precision guided conventional munitions hold at risk nearly the entire spectrum of potential targets."

However, few conventional weapons are available that can inflict damage on a scale proportionate to even a small nuclear weapon.

"You can't replace nuclear weapons today with conventional capability," said Greg Weaver, USSTRATCOM's deputy director for plans and policy. That's because "they don't have the same effects on targets," he said at a February symposium.

Idealistic Assumptions

For example, during Operation Allied Force, the US was unable to inflict significant damage on Serbia's underground airfield in Pristina with conventional weapons. In the context of that conflict, the failure wasn't crucial to the outcome but could have been if Serbia had been sheltering WMD in the facility. Conventional weapons are probably inadequate for destruction of nuclear facilities buried deep underground (China's "underground great wall," for example) and hard and deeply buried facilities for command and control, particularly when built in hard rock. According to the National Academy of Sciences, there are 10,000 such targets, mainly associated with adversarial states. Many of those targets are associated with WMDs.

Another problem is that conventional weapons, bases, and many satellites are not hardened against electromagnetic pulse (EMP) and may not function in a nuclear battlefield. Conventional missiles, for example, would be ineffective against nuclear-armed air defense missiles.

Russia reportedly has 700 nuclear air defense weapons that have the potential to impair the guidance systems of cruise missiles not hardened against nuclear effects. Beyond this is the nuclear EMP threat, which all nuclear-armed adversaries can exploit. William R. Graham, chairman of the congressional EMP commission, stated that if nuclear EMP was directed against US theater forces, "Depending on the yield of the [nuclear] weapon, the height at which the weapon was detonated, and the degree of EMP hardening enjoyed by US and allied systems, such degradation could range from a nuisance to a major hindrance in the employment of electronic systems throughout the theater."

In a 2011 report, the Defense Science Board concluded the survivability of theater conventional forces against nuclear EMP is, at best, unknown. Moreover, nuclear attacks directed against Global Positioning System satellites would likely negate the precision capability of the conventional munitions that depend on GPS guidance. There are also other ways that an adversary—particularly a peer or near-peer competitor—can degrade the effectiveness of GPS guided weapons.

Ultimately, an effort to counter nuclear attack with conventional weapons would be fighting a yield disparity of up to one million-to-one.

Fighting a powerful adversary using nuclear weapons with only conventional weapons would be extremely expensive and almost certain to fail. Even in the best case outcome, the number of US casualties could be staggering. In 2010, then-chief of USSTRATCOM, Gen. Kevin P. Chilton, warned, "We have to be careful when we start talking about one-for-one substitutions of conventional weapons for nuclear weapons," because "the nuclear weapon has a deterrent factor that far exceeds a conventional threat."

The most recent US nuclear weapons strategies posit numbers of nuclear weapons dependent on the overall threat, including Russia and China, and take into account unpredictability about future threats and the need for flexible, adaptable, and proportionate responses. No Administration in the recent nuclear age has been willing to adopt a nuclear strategy based on idealistic assumptions, which seem to be the basis of the Global Zero proposals.

The United States has for 25 years drawn down its nuclear inventories in a steady and careful manner—while also supporting the triad and a credible deterrent. These reductions are ongoing, as the nation is still moving toward its New START nuclear force limits.

This careful approach to nuclear force reduction has effectively served US interests since the end of the Cold War and does not depend on wishful thinking or idealistic assumptions. ■

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