



## INFORMATION SERIES

### CONVERSATIONS ON NATIONAL SECURITY

HON. DAVID J. TRACHTENBERG, *Editor*  
DR. MICHAELA DODGE, *Assistant Editor*  
AMY JOSEPH, *Managing Editor*

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**Part One of an Interview with General Larry D. Welch (USAF, Ret.), former Chief of Staff of the Air Force, and former President and currently Senior Fellow of the Institute for Defense Analyses. In this installment, Gen. Welch discusses sustaining an effective nuclear deterrent, emphasizing the importance of confidence in the face of uncertainty.**

This is one of a series of interviews with key national security experts conducted by David Trachtenberg, Vice President of the National Institute for Public Policy.

*Q. In response to critics who have argued that our ICBMs are unlikely ever to be used or are too dangerous to maintain, you have noted that our ICBMs are “used” every day to ensure the continued functioning of deterrence. In light of this, what do you think of proposals – made by former Secretary of Defense Bill Perry and others – to eliminate ICBMs because they are needlessly redundant, expensive, and subject to accidental launch?*

*What is the value of the U.S. extended deterrent or “nuclear umbrella”? Does it remain a credible deterrent to aggression and a disincentive to nuclear proliferation as some suggest? Or is its value diminishing in light of more aggressive behavior by great power adversaries and concerns over U.S. credibility by allies?*



The questions within the two presented for the interview can be summarized as being about the needed composition and size of U.S. nuclear forces. The core question should be: “What is required for the involved parties to be confident in the adequacy of the U.S. strategic nuclear deterrent?” The sub-questions, differences in views, and differences in positions associated with this core question are secondary.

### *The Needed Trajectories*

There are three sets of involved parties that need this confidence to ensure that we stay on the right trajectories. There is a right trajectory to continue the pattern of no use of nuclear weapons established in 70-plus years of working through frequently dangerous levels of tension between nuclear capable adversaries. There is a right trajectory to continue to limit the motivation for proliferation among nations that are fully capable of producing nuclear weapons and building nuclear forces. There is a right trajectory to ensure that U.S. political leaders have confidence they can deal with a range of crises supported by our nuclear deterrence power. For each of these trajectories, there is an involved party or set of parties that the policies and practices of the United States must influence. If involved parties lose confidence in the U.S. nuclear deterrent, it can expose the United States to such risks that other considerations must be secondary.

### *Confidence and the Need for Some Intellectual Humility*

There can be no credible analytical approach to defining what constitutes confidence since it is in the minds of the involved parties, in the minds of the political leadership in Russia, China, and other nuclear powers, in the minds of the political leadership of the 30-plus nations depending on the nuclear umbrella provided by the United States, in the minds of the changing political leadership of the United State, allies, and other partners. In the face of this, there are those who previously served in positions of authority and responsibility who are willing to assert their certainty that we no longer need to operate and sustain the three legs of the triad to sustain confidence in the effectiveness of the nuclear deterrent. They are, in effect, declaring they can see into the minds of potential adversaries.

Others of us who have been directly and personally responsible for operating and sustaining the nuclear forces find more intellectual humility serves us better in maintaining confidence in the effectiveness of the nuclear deterrent. We freely acknowledge our limited capacity to see into the minds of the changing leadership of involved sets of parties. Lacking that capability, 70-plus years of a successful strategy for nuclear deterrence and decades of building confidence in the U.S. nuclear umbrella support a level of confidence that the triad composed of Sea-Launched Ballistic Missiles (SLBMs), land-based Intercontinental Ballistic Missiles (ICBMs), and the bomber force serves the deterrent needs in the face of inherent uncertainty.



While there are important nuances, the core of the strategy for deterrence is not complicated. It is to ensure that the political leadership of potential adversaries believes that we hold at risk what they value most to ensure they can never believe that the benefit from attacking the United States or allies with nuclear weapons is worth the cost and risk. While this core of the strategy has been constant, the forces to underwrite the strategy have been dynamic, responding to changes in the international environment, changes in technology, and the desires of political leadership to limit the use of nuclear weapons to the constant daily purpose of deterring nuclear attacks.

With careful study and analyses, the United States has moved from more than 10,000 deployed strategic nuclear weapons to 6,000 to 2,200 to 1,550. So, today, the nuclear forces needed to sustain confidence in underwriting the strategy are a fraction of the size of the forces at the height of the Cold War. The triad structure of the nuclear force has been constant since the early 1960's when ICBMs and SLBMs joined the bomber force to form the nuclear triad. Today, the triad force structure objective is the bomber force (to include the cruise missile), one modern delivery platform for sea-based ballistic missiles, one for land-based ballistic missiles, and the nuclear weapons to arm the force. The composition and size of the nuclear force must continue to underwrite the strategy with high confidence. That is the imperative. Further, this force should continue to evolve based on realistic and credible analyses.

### *Motivation for Radical Change and the Role of the ICBM Leg of the Triad*

Given the dynamic nature of the composition and size of the nuclear deterrent force and the world environment in which it must perform its vital mission, it is important that we try to understand what is driving the assertion that we need radical change in nuclear force plans. The issues seem to be primarily focused on the ICBM force. The fundamental argument for radical change is that the cost and risk associated with operating and sustaining the ICBM force outweighs the benefit. So, it is useful to consider the role of the ICBM in the minds of the involved sets of parties.

Both Russia and China value their ICBM forces above other nuclear forces. The Soviet Union deployed the world's first ICBM, the R-7A in 1959 using the vehicle type that put Sputnik in orbit. The United States fielded the Minuteman in 1962. The launch of Sputnik and the deployment of the R-7A led to the "missile gap" as a major political issue in the United States in 1959-60. The gap proved to be illusory but the focus on the importance of the ICBM to national security was established. The Strategic Rocket Force in the Soviet Union and now in Russia was formed as a service separate from their Army and Air Force from the initial deployment of their first ICBM. I once spent a day with General Maksimov, Commander of the Soviet Rocket Forces. There was no question in his mind that the Rocket Forces were first priority. The available information on Russia's nuclear forces modernization plans provides ample evidence that remains true today.



China's Second Artillery was upgraded to a full separate service in 2015. China's first operational ICBM was deployed in 1971 and the ICBM was the single deployed leg of China's strategic nuclear forces until 2015 when their first nuclear ballistic missile submarine (SSBN) began patrols. North Korea and Iran have also focused primarily on the ballistic missile as their nuclear capability delivery vehicle. If ICBM forces are so important to national security in the minds of the political leadership of our potential nuclear adversaries, it is difficult to understand any perception that they are not important in our forces that must deter those potential adversaries. Russia has elevated their threat to our national interests and those of our allies, China has become increasingly assertive. Both are making large investments in increasing the capability of their nuclear forces. Given these developments, it would be massively inconsistent with the realities in the real world for the United States to consider giving up a leg of the nuclear deterrence triad.

There are additional reasons why the ICBM leg of the triad is so important to the effectiveness of the nuclear deterrent. While each leg of the triad brings important capabilities to the deterrent force, the ICBM has unique characteristics. First it is uniquely stabilizing in that it is in a constant state. There is no need for provocative changes in status in a crisis. It is on U.S. soil. It is tied to the nuclear command and control system with a stable reliable structure. In some respects, it protects the other two legs of the triad. With concentrated focus, a determined, technology rich adversary, might develop a campaign that is effective in attacking the sea leg of the triad and doing so without attribution which would greatly complicate the deterrent calculus. The bomber leg of the triad is concentrated on a small number of locations that can be placed at risk with a handful of nuclear or even conventional weapons. Neither effort is worth the cost and risk for the adversary so long as the ICBM force is constantly ready. There could be no ambiguity about an attack on the ICBM force. It would take a massive attack on the U.S. homeland. Even with a massive attack no adversary could be confident in the effectiveness of the attack on the ICBM force so long as it consists of significant numbers.

History also suggests that ballistic missiles evoke a different level of concern for the leadership of the United States. For years, Soviet Bear bombers violated U.S. airspace over western Alaska with relative impunity beyond attempts to intercept and escort them out of U.S. airspace. Soviet Delta SSBNs patrolled within missile range of east coast cities and military bases. The United States paid careful attention to the Deltas to include adjusting bomber alert status on northeastern bases to deal with the short missile flight time. Neither Soviet bombers nor submarines created a crisis. In contrast, Soviet ballistic missiles in Cuba that could reach U.S. east coast cities brought the United States and the Soviet Union perilously close to nuclear war.

### *The Cost and Risk of Sustaining the Triad*

The point is there is high risk to deterrence with a nuclear deterrent force missing the attributes of the ICBM force. So, the question is: what is the cost and risk associated with sustaining the



ICBM force that is more compelling than the risk to deterrence and world confidence in the United States from a radical change in force composition and size? The cost issue seems to be straightforward. The Minuteman III, which the new ICBM, the Ground Based Strategic Deterrent, will replace was designed for a 10-year life. By the time it is replaced it will have served its purpose for 60 years. Given this history, the cost-benefit seems unassailable. The cost of the replacement is sometimes declared to be over \$250 billion but that number is not always accompanied by the fact that it is the estimated 50-year life-cycle cost. This is an unusual way to portray the cost of any system.

As to risk, the principal concerns seem to be unauthorized or unwise launch. Both are sometimes lumped together as the consequence of a readiness standard that allows for rapid launch, characterized as “hair trigger” by opponents of continuing to operate and sustain the triad. If the trigger guard has been completely effective for more than 70 years, that should warrant confidence in the “always, never” objective. That is, the alert missiles will always respond when directed by proper authority and will never be launched if not properly authorized. Even so, with an abundance of caution, ICBMs on alert are aimed at open ocean areas until a launch is authorized.

As to unwise launch with a decision by the President made too quickly, there is no evidence that any President would be motivated to launch on inadequate information and there is no need to do so. Even after losing numbers of ICBMs to a massive attack, the remaining nuclear forces can deliver a devastating retaliatory response. “Use them or lose them” as a reason to launch on warning is a myth. Launch on warning is an operational capability, not a plan. The operational plan is to launch whenever the President makes the decision. Giving the President the widest range of options is the most effective approach to reduce the existential threat for the United States and allies. Limiting the President’s authority to stop or respond in the most effective way to an imminent threat to the nation is contrary to the constitutional role as Commander in Chief. There can be no more serious imminent threat than that presented by potential adversaries’ nuclear capabilities. To attempt to ameliorate the danger presented by potential adversaries by limiting our nuclear forces is illogical and counterproductive.

### *Conclusion*

At the start of this interview, a core question was posed; “What is required for the involved parties to be confident in the adequacy of the U.S. strategic nuclear deterrent?” I would add a question. Where is the greatest risk? Is it radical change to a nuclear triad that has served its design purpose effectively for 70-plus years through a wide range of crisis situations supporting U.S. national interests, those of our allies, and limiting the motivation for nuclear proliferation? Or is it sustaining the three legs of the triad, each serving safely and effectively for 70-plus years, each bringing unique value to the deterrent? The choice seems clear.



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