Bulletin of the Speaking Knowledge Scientists 70 Years Speaking Knowledge

Do more nukes really mean more nuclear crises? Not necessarily

Matthew R. Costlow, The Bulletin of the Atomic Scientists, December 9, 2015, http://thebulletin.org/do-more-nukes-really-mean-more-nuclear-crises-not-necessarily

Thirty-two years ago, during what military historians call the "1983 war scare," the United States and the Soviet Union arguably came closer to nuclear war than at any time since the Cuban Missile Crisis in 1962. A newly-declassified 1990 report by the President's Foreign Intelligence Advisory Board, published in October by the National Security Archive, makes this case. It concludes that some Soviet leaders thought an annual NATO exercise called Able Archer was possibly a front for a preemptive nuclear strike by the United States, and placed some strategic forces on alert in response.

The release of the report will add to discussion over what factors cause nuclear crises. Disarmament advocates traditionally argue that the more nuclear weapons the United States retains, the greater the risk of a nuclear crisis. Ploughshares Fund President Joseph Cirincione, for example, writes that "the US and Russian stockpiles are on track to decline for at least the rest of this decade. As their numbers come down, so does the risk of nuclear war." Nuclear analysts Hans M. Kristensen, Robert S. Norris, and Ivan Oelrich argue more broadly that "excess [nuclear] weapons increase the nuclear danger without contributing to national or the world's security."

But is the conventional wisdom correct? If the United States reduces its nuclear arsenal further, will it actually reduce the chances of a nuclear crisis? The historical data seem to answer in the negative.

In this context, a nuclear crisis occurs when one or more nations place some portion of their strategic forces on a higher state of alert in response to growing tensions. The US and Soviet experience during the Cold War provides analysts with the most information on the question of correlation between nuclear warhead numbers and nuclear crises. If more of the former increased the risk of the latter, then one would expect to see more crises during the decades when the United States and Soviet Union had the largest nuclear arsenals.

What the numbers show. According to open reports, during the 1940s, the United States <u>put its</u> <u>nuclear forces on alert twice</u>—first in response to Yugoslavia shooting down US C-47s (1946), and second in response to the Berlin blockade (1948). During the 1950s, the United States put its nuclear forces on alert four times: during the Korean War (1950-1953), the Suez Crisis (1956), the Lebanese Crisis (1958), and the Taiwan Strait Crisis (1958). The Soviets, who acquired their

first nuclear weapon in 1949, did not place their nuclear forces on alert in the 1950s. In the 1960s, the United States put its nuclear forces on alert four times: when the Soviets downed a US U-2 spy plane just before the 1960 Paris peace summit, during the Berlin Crisis (1961), during the Cuban Missile Crisis (1962), and amid Vietnam War negotiations in 1969. The Soviet Union placed its nuclear forces on alert in 1960, 1961, and 1962, as well as in 1968, when it and four other Warsaw Pact countries invaded Czechoslovakia. During the 1970s, the United States and the Soviet Union each placed their nuclear forces on alert once, during the Arab-Israeli War in 1973. Lastly, during the 1980s, the Soviets placed their nuclear forces on alert during the Able Archer Exercise in 1983.

The <u>US nuclear arsenal size</u> from 1945 to 1949, during which it put its nuclear forces on alert twice, averaged about 49 weapons. The average size of the US nuclear arsenal during the 1950s was about 3,500 weapons, and it experienced four crises in which nuclear forces were put on alert. In the 1960s, with the average size of the US nuclear arsenal at about 27,000 weapons, the United States again experienced four crises in which it put nuclear forces on alert. The average size of the US nuclear arsenal during the 1970s was about 26,000 weapons, and it experienced one crisis in which it put nuclear forces on alert. Finally, the average size of the US nuclear arsenal during the 1980s was about 23,000, and it experienced no crises in which it put nuclear forces on alert.

Thus it is clear that the United States, during the Cold War, sometimes experienced multiple crises at times when its arsenal was relatively small, yet also went through a decade with a relatively high average arsenal size during which it experienced only a single nuclear crisis. So even while the arsenal size fluctuated, there seemed to be no parallel rise or fall in the number of times the United States experienced a nuclear crisis.

As for the Soviet Union, it put its nuclear forces on alert four times during the 1960s, when its arsenal was relatively <u>small</u> (ranging in size from 1,627 warheads in 1960 to 10,671 in 1969). In contrast, it placed its nuclear forces on alert only once in the 1970s and once in the 1980s even with a steadily-growing and much larger arsenal. (The Soviet nuclear arsenal peaked at 40,159 nuclear warheads in 1986.)

These data sets—covering five decades, many thousands of weapons, and multiple buildups and draw-downs—are too big for the numbers to be dismissed as statistically insignificant. They simply don't support the notion that achieving a world with many fewer nuclear weapons—the goal of arms control negotiations—necessarily means we will experience fewer nuclear crises.

Smaller arsenal, higher tensions. Some may hold out hope that arms control efforts will themselves bring about better and more stable relations between nations like the United States and Russia, thus reducing the risk of a crisis. Yet the history of arms control offers very little hope in this regard. The United States and Soviet Union signed the first Strategic Arms Limitation Treaty and the Anti-Ballistic Missile Treaty in 1972, and the following year, both nations put their nuclear forces on alert during the Arab-Israeli War.

Only five years ago, the United States and Russia signed New START in the midst of a supposed "reset" in US-Russian relations. Now, following US reductions to its nuclear arsenal,

the <u>chairman</u> and <u>vice chairman</u> of the Joint Chiefs of Staff agree that Russia is the number one threat to the United States. Arms control negotiations, by themselves, do not automatically lead to improved relations.

While the world has been blessed to see a drop-off in nuclear crises since the end of the Cold War, nuclear saber-rattling continues. Russian President Vladimir Putin has made <u>numerous</u> <u>nuclear threats</u> against US allies in NATO, while North Korean officials <u>have vowed</u> that if provoked, Pyongyang will fight the United States until there is "no one left to sign a surrender document." However, though nuclear crises are still a frighteningly real possibility, it does not appear that further US nuclear force reductions will necessarily lower the risk of them occurring.

The fact is, crises are often caused by many more factors than just the balance of forces, nuclear or otherwise, between two nations. Analysts must follow where the facts lead them, and right now, it appears the evidence doesn't suggest that further cuts to US nuclear weapons are a solution to future nuclear crises.