



Why a large nuclear arsenal will always be needed

By [Zbigniew Mazurak](#) on Jan 02, 2013 in [Money](#), [National Defense and Military](#), [Support the Troops](#)
Last month, while the US observed the 50th anniversary of the Cuban Missile Crisis, [the opponents of a strong defense cynically used that month and that anniversary to call for America's nuclear disarmament](#). They are wrong. The Cuban Missile Crisis, contrary to their claims, proved that nuclear deterrence actually works. Moreover, America cannot afford to disarm itself – whether uni-, bi-, or multilaterally – and must always maintain a large nuclear deterrent.

This also means that any proposals to further cut the US nuclear arsenal – made by the usual suspects, the ACA, the Council for a Livable World, Ploughshares, the PDA, and the CATO Institute – must be completely rejected. Here's why. Here's also why a large nuclear arsenal will always be needed.

The needed size of the arsenal – i.e. how many warheads and delivery systems the US needs – is always driven by two needs: a) to be able to survive an enemy first strike in case it happens, and b) to be able to threaten the majority, if not all (100% is rarely possible) military and strategically important economic assets of an enemy. This means not only his ICBM, SSBN, and bomber bases plus the SSBNs and ICBM launchers themselves, but also his conventional military assets and important non-military assets.

Both of these needs must be met for deterrence to be possible at all.

An enemy will refrain from attacking ONLY if he concludes, after consideration, that the consequences of an attack (i.e. an American counterattack on him) would be too grave for him to start a fight. This is how deterrence, including nuclear deterrence, works.

The larger the enemy's nuclear arsenal is (not to mention his conventional force), the larger arsenal is required to survive his first blow and to be able to threaten a decisive majority of his military assets.

If at least one of your potential adversaries has a large nuclear arsenal, you must have a large one, too, and one sufficiently sized to survive his first blow and to hold the vast majority of his assets at risk.

Furthermore, your arsenal must not only be large, but also diverse, and must consist of survivable assets. This means you must have a nuclear triad (so as not to rely on just one or two modes of nuclear delivery), and it must be equipped with survivable assets: very quiet SSBNs, widely dispersed bombers (some of which must be airborne at any time), and ICBMs in hardened siloes or on mobile launchers.

Currently, America's largest nuclear-armed adversary is Russia. It has 2,800 strategic warheads (of which at least 1,492 are currently deployed and the rest are in storage and can be deployed anytime if need be) and untold thousands of tactical nuclear warheads. We don't know how many, because Russia refuses to say, but the Obama Administration says Moscow has 10 times more of these weapons than the US has, i.e. 4000 to 400. Russia's advantage in tactical nuclear weapons is balanced by America's current lead in strategic nuclear warheads (the vast majority of America's 5,000 nuclear warheads are strategic) and their delivery systems (450 ICBMs, a handful of B-52 and B-2 bombers, and 14 SSBNs capable of launching 24 submarine-launched ballistic missiles each, and each SLBM can carry 8 warheads).

To deliver its strategic warheads, Russia currently has:

- 434 ICBMs: 58 SS-18 Satan, 136 SS-19 Stiletto, 141 SS-25 Sickle, 74 SS-27 Sickle-B, and 18 RS-24/SS-29 Yars ICBMs. A single SS-18 can carry 10 warheads (plus 30 penetration aids), a single SS-19 Stiletto 6 warheads, and a single Yars 4 or more. The SS-25 Sickle and SS-27 Sickle-B are single-warhead missiles, although the SS-27 may be MIRVable. Collectively, this ICBM fleet could deliver at least 1,684 strategic warheads to the US if need be.
- 14 SSBNs: 1 Typhoon class (capable of carrying 20 SLBMs), 1 Borei class, 5 Delta III class, and 7 Delta IV class SSBNs. All of them but the Typhoon can carry 16 SLBMs each. How many warheads they can carry depends on the missile type being carried. The R-29RMU Sinyeva can carry four warheads, while the R-29RMU2 Liner can carry twelve and the Bulava, scheduled to enter service next year, can carry ten. The sole Typhoon class sub has tested all of these missile types. One Delta III class sub, the Petropavlovsk Kamchatskiy, is in reserve and awaits replacement by a Borei class sub. Collectively, the Russian SSBN fleet could, if loaded with Bulavas or Liners, deliver at least 2,240 warheads to the US.
- Over 200 strategic bombers: 64 Tu-95s, 16 Tu-160s, and 171 Tu-22Ms, each of which can carry 6 nuclear-tipped cruise missiles on its wings, while the Tu-95 and Tu-22M can also carry nuclear freefall bombs. Russia is now growing its Tu-160 fleet, while the Tu-95 is reported by one source to be able to carry more than 6 cruise missiles. That source claims that the Tu-95 fleet can collectively carry 704 nuclear-tipped missiles. In any event, New START counts only bombers, not the cruise missiles they carry, and every bomber, no matter how many cruise missiles it carries, is counted as just one weapon.

So Russia has a huge strategic nuclear arsenal and the means to deliver all of it. (This is to say nothing of its even larger tactical nuclear arsenal.) To unilaterally disarm or even cut America's nuclear deterrent further in the face of this huge Russian arsenal would be worse than an utter folly. It would be downright suicidal.

A much smaller nuclear arsenal – such as the one proposed by the forementioned pro-disarmament organizations (around 1,000 warheads and no more than 300 ICBMs and 8 SSBNs) – would be so small that it would be easy for Russia to destroy in a nuclear first strike. A mere 300 ICBMs, a few noisy Ohio class SSBNs at sea, two well-known SSBN bases, and a handful of bomber bases whose locations are also well known, would be far easier for Russia's huge nuclear arsenal (see above) to destroy than 450 ICBMs, 10 SSBNs at sea (especially if they were SSBNX or Virginia class derivative boats), and bombers on patrol in the air.

A much smaller nuclear arsenal would also be unable to threaten (and if need be, obliterate) the majority (let alone all) of Russian military assets, including (but not limited to) its ICBM siloes and bases, SRBM bases, bomber and tactical strike aircraft bases, SSBN bases, subs at sea, and other (non-nuclear-related) military assets. That, in turn, would make such a small arsenal non-credible and thus end nuclear deterrence.

Thus, with further deep cuts to America's nuclear deterrent, NEITHER of the two needs that must be met for the enemy to be deterred would be met. In other words, further deep nuclear arsenal cuts would undermine nuclear deterrence in two ways: by making the arsenal too small to be survivable, and by making it too small to be able to threaten most enemy military assets.

It needs to be underlined that an enemy will be deterred from attacking if, and ONLY IF, the US nuclear arsenal is large enough to survive an enemy first strike AND if it's large enough to hold most (if not virtually all) enemy military assets at risk (which is determined by how many assets the enemy has; Russia has thousands of them, including those listed above).

A Russian arsenal of 434 (and counting) ICBMs, 14 SSBNs with hundreds of SLBMs onboard, over 240 strategic bombers, hundreds of tactical strike aircraft, dozens of AF/Navy bases, nuclear facilities, and goodness knows how many tactical nuclear weapon delivery systems cannot be held at risk by an arsenal of just a few hundred, or even 1,000, warheads atop a small number of delivery systems such as a mere 300

ICBMs and a few SSBNs at sea. Holding Russia's huge nuclear complex at risk requires thousands of warheads – not a mere 1,000 or 300 – and a large fleet of delivery systems. The Heritage Foundation has concluded that the US needs 2,700-3,000 nuclear warheads to be deployed.[1]

And it wouldn't be expensive. The entire nuclear arsenal – the nuclear warheads, their delivery systems, and the supporting facilities and programs cost only \$32 bn per year (according to the Stimson Center) or \$38 bn per numbers from a 2009 Carnegie Study[2], which amounts to only 5-6% of the total FY2013 military budget (\$631 bn per the FY2013 NDAA) and just 1% of the total military budget. America's nuclear arsenal is not siphoning money away from any other program – military or nonmilitary. Its budget is too small to do that.

So a sufficiently large nuclear arsenal can affordably be, and must be, provided to deter the enemy, as required by the US Constitution, which requires the federal government to provide for the common defense.

[1] Rebecca Heinrichs, Baker Spring, Deterrence and Nuclear Targeting in the 21st Century, the Heritage Foundation, URL: <http://www.heritage.org/research/reports/2012/11/deterrence-and-nuclear-targeting-in-the-21st-century>. Retrieved on December 25th, 2012.

[2] In its study, however – which was evidently aimed at exaggerating the cost of the nuclear deterrent – Carnegie wrongly included the cost of missile defense programs, which are not a part of the nuclear deterrent, and of nonproliferation/threat reduction programs, which are also not a part of that nuclear deterrent. Neither of these programs were spawned by America's nuclear arsenal, their costs are not due to that arsenal, and are not related to that arsenal's cost in any way. If these two nonrelevant categories of programs are excluded, the nuclear arsenal's cost (in FY2008 dollars) is \$38 bn, not \$52 bn as Carnegie claimed.