While Western leaders, particularly in the United States and United Kingdom, continue to advocate policies supporting the ultimate elimination of nuclear weapons, Russia’s nuclear posture appears to be heading in precisely the opposite direction. Despite the fact that many in the West believe nuclear weapons are Cold War relics with diminishing utility and relevance in the 21st century, Russian military and civilian leaders increasingly brandish nuclear threats and declare nuclear weapons to be of growing importance to the Russian Federation. Moreover, despite a roughly 80 percent drop in the number of U.S. nuclear weapons and a cut of more than one-third in the UK nuclear stockpile since the end of the Cold War, Russia has made nuclear weapons the centerpiece of its military modernization program.

Russia is seeking to reinforce its great power status, establish influence and control along its periphery, and undermine Western influence and alliances. Its national security policy and military doctrine emphasize nuclear forces. Russia is engaged in an extensive and comprehensive nuclear modernization program, developing and deploying modern and more sophisticated nuclear weapons, and upgrading all elements of its strategic nuclear delivery systems. Russian leaders have threatened to launch nuclear attacks on NATO members and have conducted frequent and unprecedented military exercises involving nuclear forces and bomber patrols in Europe, Asia, and the Western Hemisphere exceeding the scope and breadth of what was witnessed during the darkest days of the Cold War. And Russia is knocking down one of the last barriers to a full-scale nuclear build-up by violating its nuclear arms control commitments.

These developments suggest Russia’s nuclear posture is evolving in ways diametrically opposite the United States and the United Kingdom. Aggressive Russian behavior, coupled with its brandishing of nuclear threats against the United States, the United Kingdom, their allies and friends, and initiating the use of nuclear weapons in many of its military exercises are a cause of serious concern.

Russia’s military doctrine places primacy on nuclear forces, including sanctioning their use preemptively against conventional threats to the Russian Federation. The latest version of Russia’s military doctrine, approved by President Vladimir Putin in December 2014, notes:

- “The Russian Federation reserves the right to utilize nuclear weapons in response to utilization of nuclear and other types of weapons of mass destruction against it and (or) its allies, and also in the event of aggression against the Russian Federation involving the use of conventional weapons when when the very existence of the state is under threat.”

- “Nuclear weapons will remain an important factor” for preventing not only nuclear war but “military conflicts with the use of conventional weapons (large-scale war, regional war)” and Russia’s strategic nuclear forces will guarantee “unacceptable damage to the aggressor in any situation.”

Russia’s new military doctrine also reinforces the main tenets of the 2010 military doctrine, in which the use of nuclear weapons in conflict – even of a conventional nature – is justifiable under certain conditions. Russian officials have also spoken of the use of nuclear weapons as a means of ending conflict on terms favorable to the Russian Federation, and this is reflected in their exercises.

This doctrinal emphasis on the important role of nuclear weapons is backed by a significant investment of fiscal resources in nuclear weapons and infrastructure.

Russian military and civilian leaders have been remarkably open and candid about their views of the utility of nuclear weapons. The following are examples of some of these statements.

- “…that to defend the sovereignty and territorial integrity of Russia and its allies, military forces will be used, including preventively, including with the use of nuclear weapons…” (Gen. Yuri Baluyevsky, then-Chief of the General Staff, January 2008)
- “The threat of a nuclear conflict is higher today than it was during the Cold War.” (Igor Ivanov, former Russian Foreign Minister and Security Council Secretary, January 2015)
- “In a situation critical for national security, we don’t exclude a preventive nuclear strike at the aggressor.” (Gen. Nikolai Patrushev, head of Russia’s Security Council, June 2010)
- “I want to remind you that Russia is one of the leading nuclear powers... It’s best not to mess with us.” (President Vladimir Putin, August 2014)
- “The nuclear deterrent and missiles is our absolute priority and we have funded that programme 100%...” (Then-Prime Minister Vladimir Putin, February 2012)
- Regarding plans to add more than 50 intercontinental ballistic missiles to the strategic nuclear forces in 2015, “You can imagine what a powerful force this is.” (President Vladimir Putin, December 2014)
- “In my view, our primary enemy is the U.S. and the North Atlantic bloc.” (General Yuri Yakubov, Senior Defense Ministry official, September 2014)
RUSSIAN NUCLEAR WEAPONS DEVELOPMENTS

Russia is embarked on a massive strategic modernization program to deploy new nuclear weapons and delivery systems. Since the late 1990s, Russia has developed and deployed:

- Two new types of Intercontinental Ballistic Missiles (ICBMs) including a new road-mobile ICBM and a silo-based variant (Topol-M Variant 2 and Yars)
- A new type of Sea-Launched Ballistic Missile (the Bulava-30 SLBM) and two upgraded versions of an existing SLBM (Sineva and Liner)
- A new class of ballistic missile submarines (Borey)
- Modernized heavy bombers, including the Tu-160 (Blackjack) and Tu-95 (Bear)
- A new long-range strategic cruise missile (Raduga)

Russia is also developing additional strategic nuclear weapons systems, including:

- A new road-mobile ICBM (Rubezh) and a new rail-mobile ICBM (Barguzin)
- A new “fifth generation” missile submarine to carry ballistic and cruise missiles
- A new MIRVed heavy ICBM (Sarmat)
- A new “fifth generation” missile submarine to carry ballistic and cruise missiles
- A new stealthy heavy bomber to carry cruise missiles and reportedly hypersonic missiles

This aggressive modernization program is the beneficiary of a significant influx of fiscal resources. Russian officials have stated that funding the modernization of Russia’s nuclear weapons complex is the nation’s top priority. Despite economic difficulties, Russian leaders have shown no willingness to scale back their extensive nuclear force modernization program.

QUANTITATIVE AND QUALITATIVE ADVANCES

The Obama Administration estimates Russia has 4,000-6,500 nuclear weapons. Russian press estimates are frequently higher.

Russia has retained 10 times as many tactical nuclear weapons as NATO, which includes virtually every Cold War tactical nuclear weapon type, despite the United States withdrawing and destroying the vast majority of its tactical nuclear arsenal in the 1990s. Significantly, Russia retains battlefield nuclear weapons that are directly related to deciding the outcome of local and regional wars with which Russia is threatening NATO.

Russia is developing and reportedly deploying new and improved nuclear warheads including low-yield and low-collateral damage designs.

We will develop, improve and deploy new types of nuclear weapons. We will make them more reliable and accurate.

Then-Defense Minister Sergei Ivanov, January 2005

RUSSIAN NUCLEAR FORCE EXPANSION

In January 2011, during the New START ratification hearings in Moscow, then-Russian Defense Minister Sergei Serdyukov stated Russia intended to increase its nuclear forces. He said, “By all parameters, even missile launchers, we will only reach the level set by the treaty by 2028. As for warheads we will reach [the ceilings] by 2018.”

In March 2015, Russian Foreign Minister Sergey Lavrov changed the timetable: “Our priority under the [New START] treaty is to achieve the limits stipulated for strategic arms and delivery vehicles by 2018.” He did not mention that this means Russia is increasing, not decreasing, the number of its deployed warheads and delivery vehicles that existed at the time of the New START Treaty’s entry into force in February 2011.

Halfway through the New START Treaty reduction period Russia has increased its numbers in all treaty categories (i.e., deployed warheads, deployed delivery vehicles and deployed and non-deployed delivery vehicles.)

Putin has stated Russia will produce 400 new ICBMs by 2020, including 40 MIRVed Yars ICBMs in 2014-2015. The heavily-MIRVed Russian ICBM force will undergo a nearly complete modernization by 2021. Russian press reports indicate that they plan to deploy 46 Sarmat heavy ICBMs and 30 Barguzin rail-mobile ICBMs starting in 2018-2020. Some 50 strategic nuclear missiles (ICBMs and SLBMs) will be put in service in 2015.

In addition, Russia will have three operational Borey-class ballistic missile submarines in 2015, and will increase this number to eight by 2020. The strategic bomber force is also being upgraded, as are the nuclear armaments these bombers carry.

Because of loopholes that did not exist in the original START Treaty, under New START Russia may actually increase the number of its strategic nuclear warheads to 2,000-2,500 by the early 2020s. The New START bomber weapon counting rule alone allows numbers in this range, as an entire bomber load of weapons counts as one warhead under New START. Moreover, unlike the original START Treaty, the New START Treaty does not prohibit the deployment of rail-mobile ICBMs, which Russia plans to develop and deploy as part of its comprehensive strategic force modernization program.
A FORCE FOR INTIMIDATION AND COERCION

Since 2007, Russia has repeatedly made brazen nuclear threats against the United States and its NATO allies in an effort to exert its influence, split the alliance and undermine the U.S. security relationship with its strategic partners. This type of verbal saber-rattling is unprecedented since the Cold War. Examples include the following:

• If Ukraine joins NATO or agrees to host U.S. missile defense assets on its soil, then “Russia… will target its offensive missile systems at Ukraine.” (President Vladimir Putin, February 2008)

• Regarding the annexation of Crimea, “We were ready to do this (put nuclear forces on alert).…. It was a frank and open position. And that is why I think no one was in the mood to start a world war.” (President Vladimir Putin, March 2015)

• “I cannot rule out that should the country’s military-political leadership make such a decision, some of our ICBMs could be targeted at missile defense sites in Poland and the Czech Republic, and subsequently at other such facilities.” (Col. Gen. Nikolai Solovtsov, then-Commander of Russia’s Strategic Missile Forces, September 2008)

• “Poland is making itself a target. This is 100 per cent certain. It becomes a target for attack.” (Gen. Anatoly Nogovitsyn, then-Deputy Chief of Staff, commenting on Poland’s agreement to host U.S. missile defenses, August 2008)

Russian bombers have penetrated NATO airspace and overflown Japan, and Russian nuclear missile forces have practiced mock drills involving all elements of nuclear forces in coordinated strikes against the United States and U.S. allies. As noted, Russia has even seriously considered placing its nuclear weapons on alert during the crisis in Ukraine.

NUCLEAR SYSTEMS PRODUCED OR EXPECTED 2009-2019

 Modification of an existing SLBM; not a new missile

Information extracted from USSTRATCOM Briefing Slide, “Modernization of Strategic Capabilities,” October 17, 2014.
A FORCE FOR INTIMIDATION AND COERCION CONTINUED

A March 2015 European Leadership Network (ELN) report identifies nearly 66 air and maritime incidents in the past 12 months, many of which were characterized as “serious” or “high risk.” ELN concluded, “These events add up to a highly disturbing picture of violations of national airspace, emergency scrambles, narrowly avoided mid-air collisions, close encounters at sea, simulated attack runs and other dangerous actions happening on a regular basis over a very wide geographical area.”

With respect to Ukraine, Russia has been particularly threatening. In commenting on the Ukraine crisis, President Putin declared “Let me remind you that Russia is one of the world’s biggest nuclear powers. These are not just words - this is the reality.” In a documentary marking the one-year anniversary of Russia’s annexation of Crimea, Putin noted, “Our nukes are always ready for action.” The former Ukrainian Minister of Defense Col. Gen. Valeriy Heletey commented, “The Russian side has threatened on several occasions across unofficial channels that, in the case of continued resistance they are ready to use a tactical nuclear weapon against us.” Russia has now deployed nuclear-capable delivery systems to Crimea, including Backfire bombers and Iskander-M missiles, and there are reports that nuclear weapons have been deployed there as well.

RUSSIA’S THREATENING NUCLEAR EXERCISES

Russian nuclear exercises, and the substantial publicity given to them by the Russian government, are unique in the world and appear consistent with their nuclear escalation strategy. The large strategic nuclear exercises are announced by the Kremlin, presided over by the President and involve live missile launches. A main purpose of these exercises is training, but they are also intended to intimidate Russia’s neighbors, the United States and NATO.

Russia’s nuclear exercises have gotten larger and more frequent since the return of Vladimir Putin to the Presidency in 2012. Exercises of all types and what Russia calls “snap drills” have reached astounding levels. Russia says it will conduct 4,000 military exercises in 2015 including 120 involving the ICBM force. As one expert has observed, “….Russia’s exercises since 2006 conclusively show, Moscow sees nuclear weapons as war fighting weapons to be used offensively.”

- **Zapad (West)**
  - 1999
  - The first Russian theatre ground forces exercise simulating first use of nuclear weapons

- **Vostok (East)**
  - 2008
  - Largest nuclear exercise since the Soviet era and, according to Ria Novosti, “an open demonstration of preparedness for a new Cold War”
  - 2009
  - Heavy involvement of Russian tactical forces
  - 2010
  - Apparently aimed against China and simulated Russian tactical weapons first use
  - 2012
  - Involved all elements of strategic forces on an unprecedented scale

- **September**
  - Large-scale ICBM force exercise held during G-20 summit meeting in Saint Petersburg

- **March**
  - Strategic Missile Troops exercise involving a “massive” nuclear strike

- **October**
  - Apparent large-scale nuclear strike exercise involving numerous live missile launches
  - Large strategic nuclear exercise involving live launches of tactical and strategic nuclear missiles and defense interceptors presided over by President Putin

- **February**
  - Largest ICBM exercise ever involving 30 regiments operating in six regions of Russia
  - Reported to have been the largest exercise in Russian history and involved nuclear weapons
Russia places the highest priority on nuclear weapons because it believes that its status as a “great power” is based upon them. Russia's statements on nuclear policy, its official doctrine, its extensive across-the-board strategic modernization programs, its direct nuclear threats against others, its unprecedented level of Cold War-type strategic exercises, and its violation of nuclear arms control agreements all suggest a troubling and dangerous move toward a more aggressive overall nuclear posture for the foreseeable future. The implications of these actions, coupled with Russia's increasingly belligerent behavior on the world stage and willingness to use military force, threaten the very foundations of peace and stability and challenge the notion that Russia can be a reliable partner in ensuring a tranquil world in the 21st century.

While many in the West believe that the end of the Cold War has meant the end of an adversarial relationship with Russia, recent events suggest this hoped-for outcome is more the result of wishful thinking than of a sober and realistic assessment of the current geo-strategic environment. Under these circumstances, the possibility that Russia may trigger events leading to their actual use of nuclear weapons cannot be dismissed out of hand. Senior Russian officials, including President Putin, have threatened that NATO allies may be targets for Russian nuclear forces, and President Putin has suggested he would have used nuclear weapons if necessary in the Russian invasion of Crimea. The invasion of a Baltic state comparable to Russia's military action against Ukraine would trigger Article V of the NATO Treaty.

Although the goal of a nuclear weapons-free world remains official U.S. and British policy and has the support of a number of Western leaders, that goal appears further from reality than ever. Russia's growing emphasis and reliance on nuclear weapons as tools of coercion and intimidation – not to mention the possibility of their actual use in conflict – suggest that continued pursuit of a “nuclear zero” option may be both unrealistic and counterproductive.

All of this suggests that the nuclear postures of Russia and the West are on divergent paths. This cannot bode well for the continued functioning of deterrence in an increasingly uncertain and dangerous world. Western policy makers should take heed of these developments as they craft national security policies appropriate to the challenges and threats of the 21st century.