THE SIMONS FOUNDATION

DISARMING ARCTIC SECURITY

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Are Russian nuclear weapons on the rise in the Arctic?

The Barents Observer reported in January that "the number of strategic warheads deployed from the Kola Peninsula is on the rise for the first time since the collapse of the USSR." [1] ***Modernization of Russia's sea-based nuclear arsenal, a predominantly Arctic force, is part of a disturbing global trend,*** [2] ***but it doesn't necessarily mean an expanded nuclear arsenal in the Arctic.***

The report was occasioned by the conclusion of three years of sea trials of a new Russian SSBN (intercontinental ballistic missile submarine), the *Yuri Dolgoruky*, and President Vladimir Putin's presence via video link to hear it declared mission ready. The *Yuri Dolgoruky* is the first of an anticipated eight new Borey-class SSBNs that Russia plans to build.

Russia has been operating nine SSBNs of an earlier vintage, of which six are with the Northern Fleet based on the Kola Peninsula and three on Kamchatka in the Pacific – in other words, the core of the SSBN fleet is Arctic based and the rest close at hand. Each of these ships is capable of carrying 16 missiles and three 0r four warheads on each missile – at full deployment that would be a total of 528 warheads, of which 384 would be based in the Kola region of the Arctic.[3]

Actual deployments are routinely well below capacity. Both Russia and the United States are obliged to report on current deployments as part of the data exchange provisions of the New START Treaty signed in 2010,[4] and in the most recent report (as of March 2013) Russia acknowledged a total of 1,480 deployed strategic warheads (out of a total stockpile of about 6,500) [5] on 492 delivery vehicles – bombers and land- and sea-based missiles.[6] In March 2012, 336 warheads were on deployed SSBNs, and of those only 192 were on SSBNs in the Kola Peninsula region (a temporarily reduced number because three of the six subs in the Arctic were then undergoing overhaul).[7]

As the launching of the *Yuri Dolgoruky* reminds us, Russia has launched a major SSBN building program. Of the eight planned,[8] the first is now "mission ready," a second is getting close, a third is about to begin sea trials and a fourth is under construction. Each of these new Borey-class subs will be capable of carrying 16 missiles, with up to six warheads on each missile, for a potential of 768 warheads. In keeping with that new assertiveness, in 2012 continuous patrols by SSBNs were resumed after the lengthy lay-offs and patrolling gaps that occurred after the end of the Cold War.[9] Not all of Russia's new subs will be based in the Kola – three will be deployed with the Pacific fleet to replace the three there now that are slated for retirement.

So, while all of the existing nine SSBNs are heading toward retirement, the coming new subs represent a 40 percent increase in capability. But they will not be deployed at full strength since SSBN-based warheads have to be contained within the provisions of the New START Treaty, which limits Russia and

the US each to a total of 1,550 deployed strategic warheads on a total of 700 deployed ground-based missiles, submarine-based missiles, and strategic bombers. The Russian academic and analyst Pavel Podvig estimates that the submarine-based portion of the Russian strategic arsenal will thus remain relatively constant at 400-500 warheads[10] (below the current total capacity of 528 sea-based warheads, and well below the enhanced capacity that the Borey-class subs will bring).

Russia is also planning a new fleet of attack submarines – a much delayed program beset by cost over-runs that has yet to produce an operational ship.[11] The new SSNs will be capable, as are existing ones, of carrying nuclear-tipped anti-submarine rockets and cruise missiles, but in accordance with the US and Russian Presidential Nuclear Initiatives (PNI) of 1991, neither the US nor Russia now deploy naval tactical nuclear weapons.[12] Of Russia's roughly 2,000 non-strategic warheads, about 660 are believed to be assigned to naval weapons (cruise missiles, antisubmarine weapons, anti-air missiles, torpedoes, and depth bombs),[13] but Russia has confirmed that all non-strategic warheads are in central storage facilities.[14] Hence, the attack submarines deployed with the Northern Fleet are not armed with nuclear warheads (although that does not preclude the possibility of some warheads being in storage in Kola bases),[15] and new SSNs will be equipped with conventional armaments.

One can debate whether all this represents re-armament, but that it represents modernization and the prominent reassertion of the sea-based leg Russia's strategic nuclear arsenal is clear.

The prospects are that Russia's Arctic nuclear arsenal will continue to parallel nuclear weapons trends globally. As overall numbers decline, so will the number of warheads in the Arctic – another reason to welcome President Barak Obama's interest in pursuing further reductions in US and Russian nuclear arsenals. Analysts see discussions focussing on a further cut by one-third, down to a total of about 1,000 deployed warheads on each side.[16] Assuming proportional cuts to the strategic warheads in Russia's Northern Fleet, that would reduce the number of nuclear warheads in the Arctic down to about 200 – hardly an Arctic Nuclear Weapons Free Zone, but one more modest step in the right direction, and, thus worth encouraging.

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Notes

[1] Thomas Nisen, "More nukes on Kola," *Barents Observer*, 10 January 2013. http://barentsobserver.com/en/security/2013/01/more-nukes-kola-10-01

[2] The United States is planning a new fleet of SSBNs designated SSBN(X) to replace the existing Trident fleet. Construction is to begin around 2020. [Amy F. Woolf, "U.S. Strategic Nuclear Forces: Background, Developments, and Issues," US Congressional Research Service Report RL33640, 14 January 2013. Available at: http://www.fas.org/sgp/crs/nuke/RL33640.pdf]
"India's ballistic missile submarine, the Arihant, has been under development since 1984.1 Defense Minister A. K. Antony stated in May 2012 that the Arihant would be "inducted by the middle of [2013]." [Hans M. Kristensen and Robert S. Norris, "Indian nuclear forces, 2012," Bulletin of the Atomic Scientists. http://bos.sagepub.com/content/68/4/96.full]
China does not currently have an operational SSBN but continues efforts to develop its new Jin-class SSBNs. [Hans M. Kristensen and Robert S. Norris, "Chinese nuclear forces, 2011," Bulletin of the Atomic Scientists. http://bos.sagepub.com/content/67/6/81.full]

The UK is developing a new SSBN, to be operational by the late 2020s. [Kristensen and Robert S. Norris, "British nuclear forces, 2011," Bulletin of the Atomic Scientists. http://bos.sagepub.com/content/67/5/89.full]

[3] Data on Russian nuclear forces is taken from: Hans M. Kristensen and Robert S. Norris, "Russian nuclear forces, 2012," *Bulletin of the Atomic Scientists*. http://bos.sagepub.com/content/68/2/87.full

[4] Treaty Between the United States of America and the Russian Federation on Measures for the Further Reduction and Limitation of Strategic Offensive Arms. http://www.state.gov/documents/organization/140035.pdf

[5] The global nuclear arsenal of strategic and non-strategic warheads is now estimated at: Russia, 8.500; US, 7,700; France. 300; China, 240; UK, 225; Israel, 80; Pakistan, 110; India, 100; North Korea, less than 10 – for a total of almost 17,300. "Status of World Nuclear Forces, End-2012," Federation of American Scientists, http://www.fas.org/programs/ssp/nukes/nuclearweapons/nukestatus.html

[6] March 2013 New START data, Russian Strategic Nuclear Forces, http://russianforces.org/blog/2013/04/march_2013_new_start_data.shtml

[7] Strategic Fleet, Russian Strategic Nuclear Forces. http://russianforces.org/navy/

[8] Hans M. Kristensen and Robert S. Norris. "Russian nuclear forces, 2012," *Bulletin of the Atomic Scientists*. http://bos.sagepub.com/content/68/2/87.full

[9] The focus here is on nuclear weapons based in the Arctic, which means Russian forces, but of course the US strategic nuclear arsenal roughly parallels that of Russia. The US does not have any nuclear warheads based in the Arctic, and whether US SSBN's are sometimes deployed into the Arctic is not entirely clear.

[10] Pavel Podvig, "Status of Russia's Nuclear Forces," *Assuring destruction forever: nuclear weapon modernization around the world*, Reaching Critical Will, March 2012. http://www.reachingcriticalwill.org/resources/publications-and-research/publications/5712-assuring-destruction-forever-nuclear-weapon-modernization-around-the-world

[11] Charles Digges, "Skyrocketing costs of launching 'new' nuclear submarine flex muscles Russia does not have," Bellona, 14 August 2012. http://www.bellona.org/articles/articles_2012/severdvinsk_delay

[12] "The Presidential Initiatives on Tactical Nuclear Weapons at a Glance," Arms Control Association, August 2012. http://www.armscontrol.org/factsheets/pniglance

[13] Hans M. Kristensen and Robert S. Norris. "Russian nuclear forces, 2012," *Bulletin of the Atomic Scientists*. http://bos.sagepub.com/content/68/2/87.full

[14] "Status of World Nuclear Forces, End-2012," Federation of American Scientists.

[15] Thomas Nisen, "More nukes on Kola," *Barents Observer*, 10 January 2013. http://barentsobserver.com/en/security/2013/01/more-nukes-kola-10-01

[16] Michael O'Hanlon and Steven Pifer, "Obama's aim to reduce nuclear threat," Brookings, 12 February 2013. http://www.brookings.edu/research/opinions/2013/02/12-obama-nuclear-threat-ohanlon-pifer