



New and traditional security threats to Russia, and the utility of nuclear weapons

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Overview

- Nuclear trends
- Status of nuclear forces
- Nuclear force modernization
- Nuclear force projection
- Nuclear policy developments
- Recent statements on nuclear policy
- Russia's 'threats'





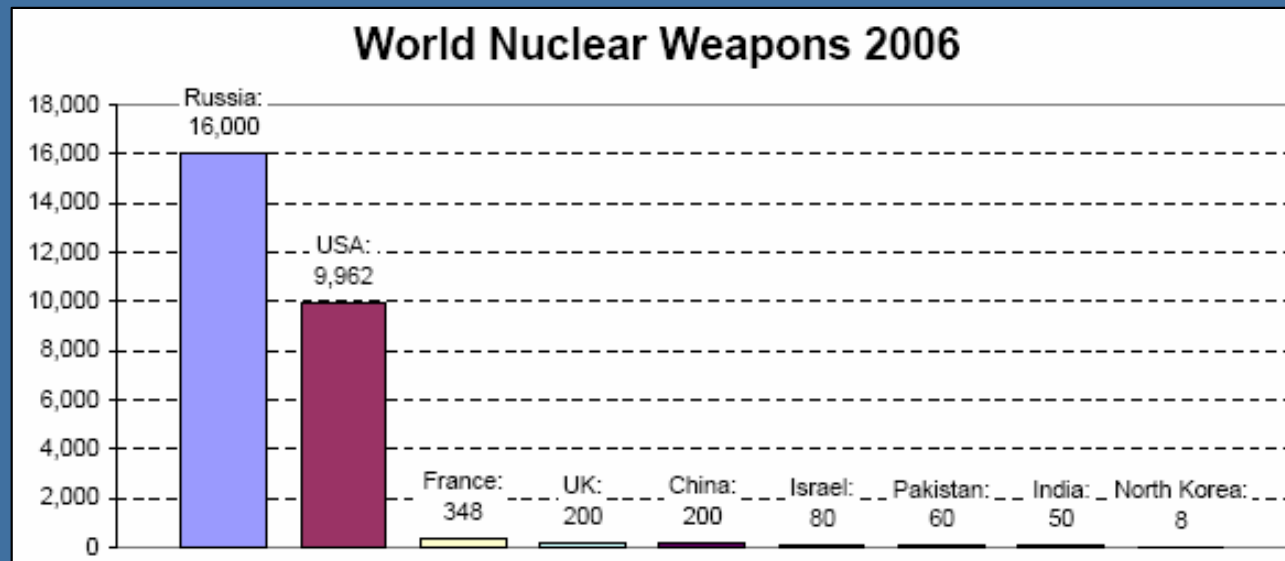
Nuclear trends

- The Russian government appears to be attempting to reassert its nuclear strength after years of decline in order to underscore its status as a powerful nation:
 - Force modernization and new strategic nuclear force structure plan.
 - Reinstatement of “large-scale” military exercises (including nuclear).
 - President Vladimir Putin and Defense Minister Sergei Ivanov observing nuclear exercises and highlighting new capabilities.
 - Military officials making statements about the role and size of Russia's nuclear posture.
- Yet nuclear posture will continue to decline, modernizations are slow, “nuclear deterrence is distant from Russia’s real security issues.



Status of Russian nuclear forces

- ~ 16,000 intact nuclear warheads.
- 5,800 operational (3,500 strategic + 2,300 non-strategic/defense).
- 10,200 reserve, awaiting dismantlement.



For a breakdown of Russian nuclear forces, see: Robert S. Norris and Hans M. Kristensen, "Russian Nuclear Forces, 2006," Bulletin of the Atomic Scientists, March/April 2006. (http://www.thebulletin.org/article_nn.php?art_ofn=ma06norris)



Nuclear force modernization: ICBMs

- SS-18 / SS-19: Reduction, life-extension through 2015-2020, retain MIRV.
- SS-25: Reduction, possible life-extension through 2018.
- SS-27: Delayed deployment finally underway, single RV now MIRV after 2009?
- SS-27 (Mobile): Teykovo first deployment, 3 in 2006 and 6 in 2007.



Teykovo-2 SS-25 ICBM base north-east of Moscow, 2005. Image: GoogleEarth.



Nuclear force modernization: ICBMs

Topol-M: “The missile that does not care.”

- Test launched November 1, 2005 with maneuverable warhead. “Can change course and range,” according to unidentified US officials.

Washington Times, November 21, 2005

- “With such missiles, it does not matter whether you face a missile shield or not; they travel at hypersonic speeds and change heading and altitude, while missile defense systems are designed to counter ballistic-trajectory weapons.”

Vladimir Putin, January 2006

- “...we are seriously working on the development of fundamentally different types of [nuclear weapons]....”

Sergei Ivanov, September 2005





Nuclear force modernization: SLBMs

- SS-N-18: Reduction,
- SS-N-20: Apparently withdrawn from service in 2004.
- SS-N-23: Backbone of future sea-based deterrent together with Bulava.
- SS-NX-30 (Bulava): Slow introduction, future of sea-based force.
Converted Typhoons possibly interim platforms?



Typhoon-class SSBN loading or offloading missiles at Severodvinsk naval base, 2005. Image: GoogleEarth

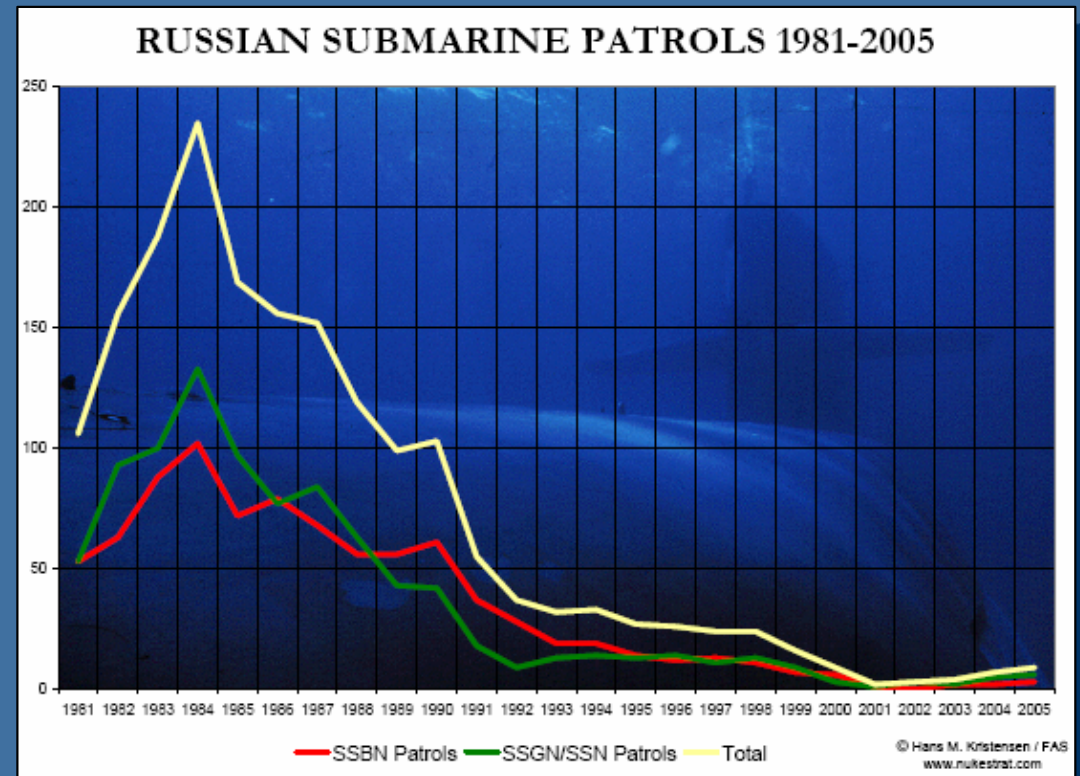


Nuclear force modernization: SLBMs

- Dramatic SSBN patrol reduction compared with Cold War.
- Reduction began well before (1984) the end of the Cold War.
- Zero patrols in 2001

“Five SSBNs are currently on patrol.”

Sergei Ivanov, September 2006



Source: <http://www.nukestrat.com/russia/subpatrols.htm>



Nuclear force modernization: Bombers

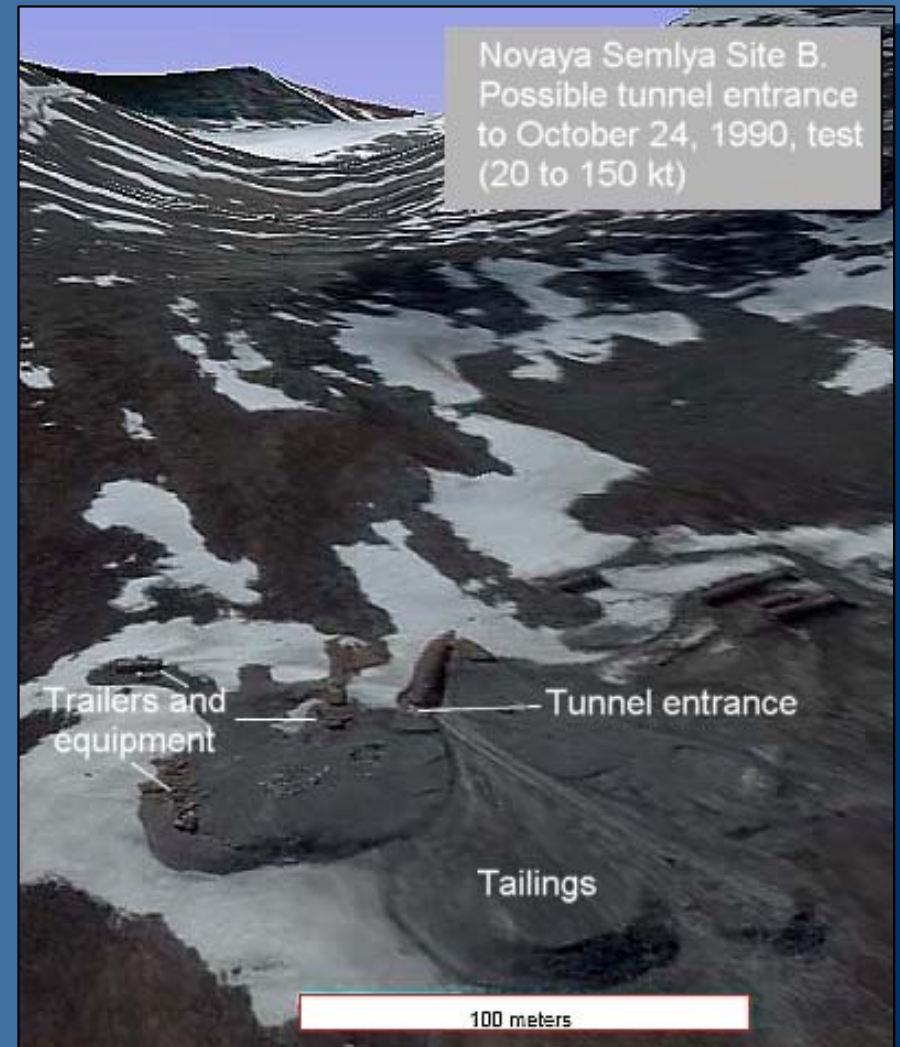
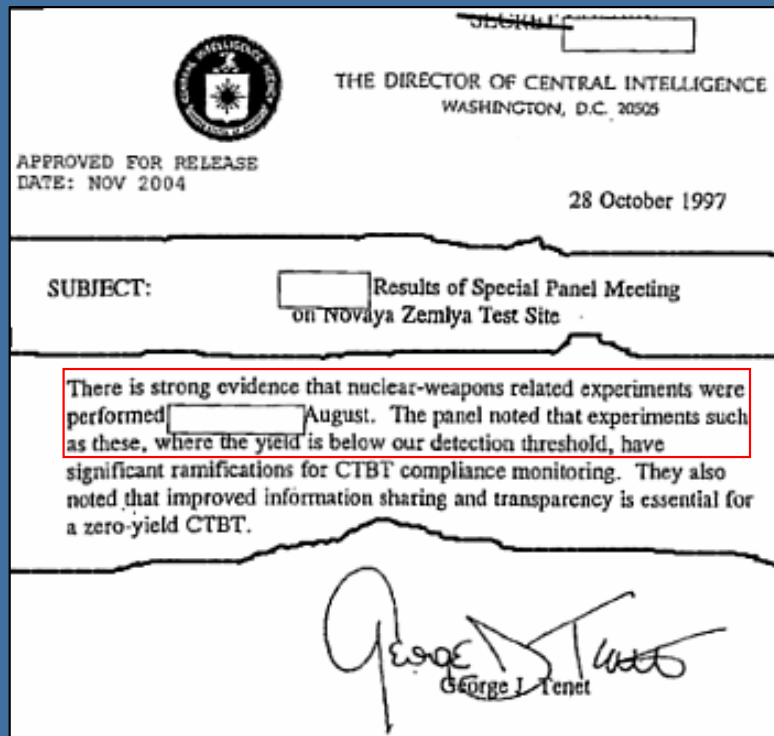
- Relatively static force:
 - 64 Bear (Tu-95)
 - 14 Blackjack (Tu-160)
- ...but with new weapons:
 - Kh-102 variant (prop.)
 - Non-nuclear ALCM (Kh-555)





Nuclear force modernization: Warheads

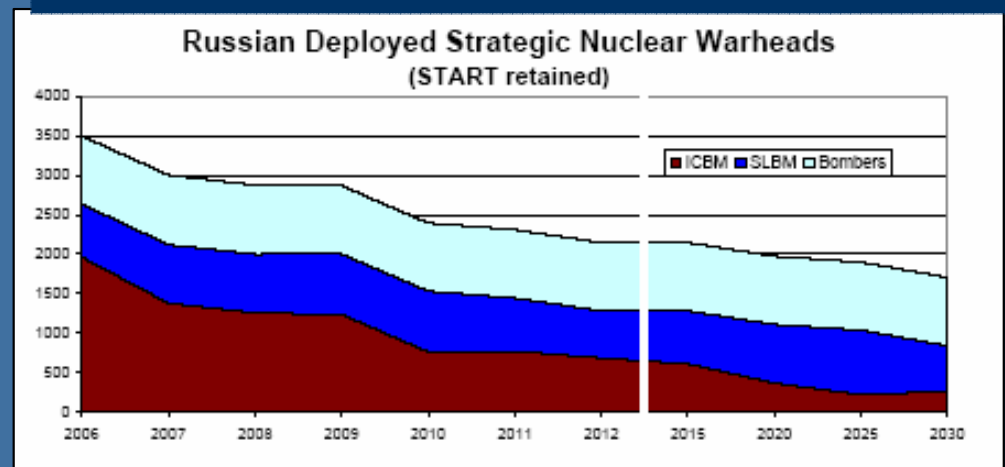
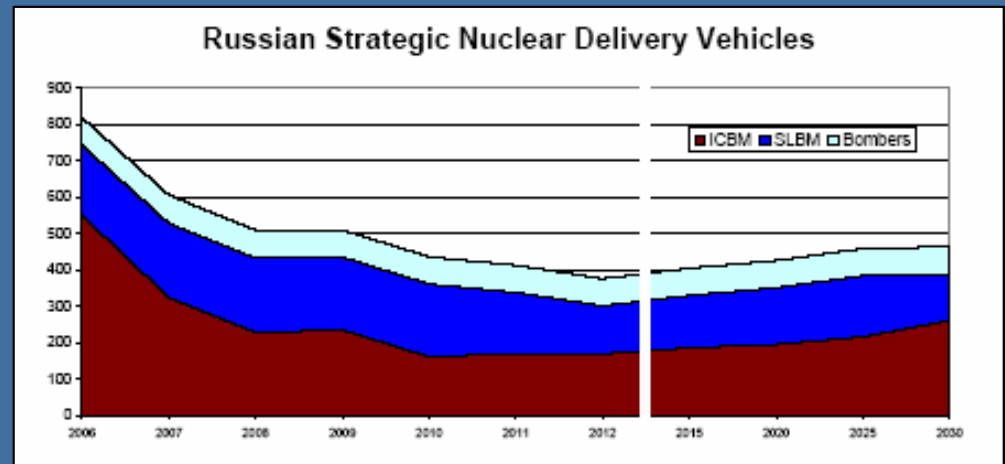
- Nuclear test rumors; moratorium intact
- Hydrodynamic tests since 1998
- New nuclear weapons, but more of the same (as far as we know)





Nuclear force projection

- Based on 2004 defense plan.
- Assumptions:
 - Up to 9 SS-27s per year with single warhead.
 - SS-18/19 phase-out by 2015-2020.
 - SS-25 phase-out by 2010.
 - Slow Borey deployment, six total.
 - Bulava with six warheads.
 - Delta III phase-out by 2012.
 - Almost static bomber force.

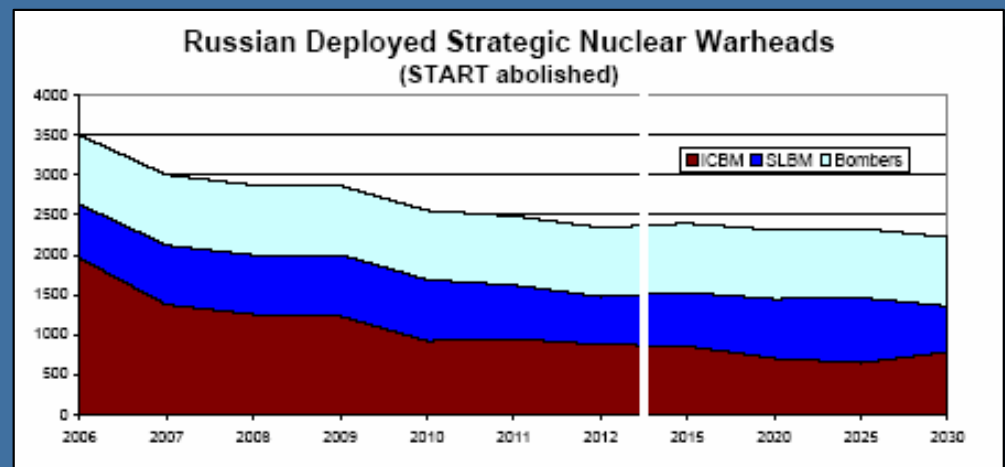
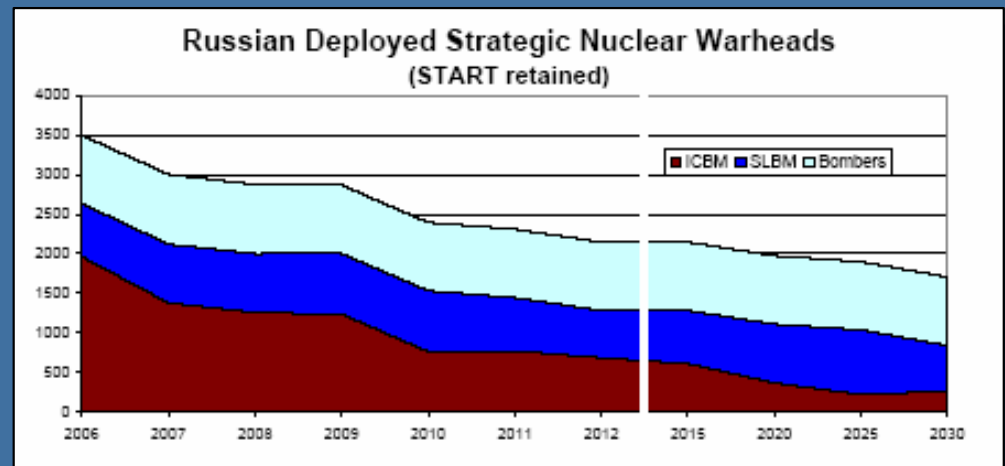




Nuclear force projection (continued)

- What if...
 - START is allowed to expire in December 2009.
 - SS-27s are upgraded to three warheads each.
 - SORT expires 2012.

- ...then it would mean:
 - ~2,300 warheads after 2012.
 - No automatic reduction below SORT level.





Russian nuclear policy

- 2000:
 - The Foreign Policy Concept of the Russian Federation
 - National Security Concept of the Russian Federation
- 2004: Immediate Tasks of Development of the Armed Forces of the Russian Federation (White Paper)
- 2006: Nonproliferation White Paper



Russian nuclear policy

- 2000: The Foreign Policy Concept of the Russian Federation
- “The threat of a global nuclear conflict has been reduced to a minimum.... At the same time, new challenges and threats to the national interests of Russia are emerging in the international sphere. There is a growing trend towards the establishment of a unipolar structure of the world with the economic and power domination of the United States.”
- “Russia is prepared to consent for a further reduction of its nuclear potential on the basis of bilateral agreements with the United States of America, and — in a multilateral format - with the participation of other nuclear powers on condition that strategic stability in the nuclear sphere will not be upset. Russia shall seek preservation and observance of the 1972 Treaty on the Limitation of Anti-Ballistic Missile Systems - the cornerstone of strategic stability. The implementation of the plans of the United States to create a national missile defense system will inevitably compel the Russian Federation to adopt adequate measures for maintaining its national security at a proper level.”
- “The Russian Federation to firmly adheres to its commitments under the Treaty on a comprehensive ban on nuclear tests, and urges all countries of the world to join it.”



Russian nuclear policy

- 2004: Immediate Tasks of Development of the Armed Forces of the Russian Federation (White Paper).
 - Defines Two overall missions:
 - Deterrence of an attack against Russia
 - De-escalation of a conflict (links conventional and nuclear escalation)
 - Deepened doctrine of “pre-determined damage” (as opposed to “unacceptable damage” in large-scale wars) for limited scenarios
 - Partly motivated in perception that US nuclear strategy is sliding toward more useable nuclear weapons
 - Outlined force structure plan for end-decade

The Ministry of Defense “can no longer completely rule out preventive use of force if demanded by the interest of Russia or its alliance commitments.”



Russian nuclear policy

- 2006 Nonproliferation paper: The Russian Federation and Nonproliferation of Weapons of Mass Destruction and Delivery Systems: Threats, Assessments, Problems and Solutions.
 - Serves as policy paper for Russia's role in G-8.
 - Declares terrorist use of WMD “greatest threat.”
 - Declares proliferation as principle concern.
 - Criticizes US nukes in non-nuclear European countries: out of sync with nonproliferation.
 - Nonproliferation has become “politicized” to serve West.
 - Mimics US and NATO nonproliferation policy.
 - Signals willingness to cooperate, but critical of US dominance.



Recent statements on nuclear policy

- The first priority "is to maintain and develop a strategic deterrent capability minimally sufficient for guaranteed repulsion of contemporary and future military threats.

Defense Minister Sergei Ivanov, January 2006

- "Many countries are eager to come in possession of nuclear weapons; the nuclear club will be expanding." Russia's plans to develop its strategic missile forces will take "into account all these threats. We're working on new missile complexes and new types of equipment with completely new characteristics."

Col. Gen. Nikolai Solovtsov, commander of Russia's strategic missile forces, December, 2005

- Russia's "nuclear umbrella" defends "not only Russia but also all [Commonwealth of Independent States] countries, including Ukraine."

Col. Gen. Nikolai Solovtsov, commander of Russia's strategic missile forces, December, 2005

- Russia has "long stopped preparing for large-scale nuclear and conventional wars. We will continue to prepare for the defense of our territory, but we will not be preparing for a war on foreign land."

Col. Gen. Yury Baluyevsky, chief of the Russian general staff, December 2005



Russia's "threats"

- United States: Cold War competition replaced with extensive collaboration. Yet tension remains and increasing bickering on key issues risks slowing/derailing transition. US targets constitute bulk of routine maintenance of strike plans and modernization effort.
- China: Increasingly common ground with border agreement, joint exercises, deepening defense cooperation, united in opposition to elements of US foreign policy. Probably generic strike planning due to Chinese forces.
 "China is our largest strategic partner." *Sergei Ivanov, September 2005*
- Britain and France: Few indications of planning, but probably generic along with US planning.
- India and Pakistan: Few indications of planning, but possible doctrinal mission.
- "Rogue" states: Very important politically yet few indications of planning. Possibly doctrinal mission.
- Terrorists: Very important politically but no apparent role for nuclear weapons.