Nuclear Weapons Status and Options Under a START Follow-On Agreement

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Presentation to
Arms Control Association Briefing
Next Steps in U.S.-Russian Nuclear Arms Reductions:
The START Follow-On Negotiations and Beyond
April 27, 2009

Note: nuclear forces and warhead estimates in this briefing are based on research by the Federation of American Scientists and Natural Resources Defense Council.
U.S. and Russian Nuclear Warhead Inventories

- Insane Cold War build-up: 70,000 intact warheads by mid-1980s
- US inventory peaked early (1967); Russia peaked late (1986)
- About 22,400 intact warheads left

- Tactical warheads dominated inventories; regional warfare focus
- Strategic warheads on both sides gradually build up through late 1980s

- SALT may have limited but did not reduce strategic warheads; end of Cold War and INF, /PNIs/START did

- SORT leaves large inventories
### U.S. and Russian Nuclear Weapons 2009

<table>
<thead>
<tr>
<th>Weapons Category</th>
<th>United States</th>
<th>Russia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operational</td>
<td>2,700</td>
<td>4,830</td>
</tr>
<tr>
<td>Strategic</td>
<td>2,200</td>
<td>2,780</td>
</tr>
<tr>
<td>Tactical</td>
<td>500</td>
<td>2,050</td>
</tr>
<tr>
<td>Reserve</td>
<td>2,500</td>
<td>(3,500)*</td>
</tr>
<tr>
<td><strong>Total Stockpile</strong></td>
<td><strong>5,200</strong></td>
<td><strong>(8,330)</strong>*</td>
</tr>
<tr>
<td>Awaiting Dismantlement</td>
<td>4,200</td>
<td><em>(4,670)</em></td>
</tr>
<tr>
<td><strong>Total Inventory</strong></td>
<td><strong>9,400</strong></td>
<td><strong>13,000</strong></td>
</tr>
</tbody>
</table>

* There are no reliable public estimates for the number of warheads in the Russian reserve, total stockpile, or awaiting dismantlement.

- Inventory of some 22,400 intact warheads
- Stockpiles with 13,500 warheads
- Some 6,000 warheads in reserve
- 8,870 warheads awaiting dismantlement

- U.S. has reached SORT limit
- Russia may soon have more tactical than strategic warheads (although tac nukes situation is highly unclear)

- More weapons are expected to disappear into reserve in near future
- Dismantlement numbers are secret; US backlog complete in 2021; Russian unknown
U.S. and Russian Strategic Delivery Vehicles

- Bomber-focus early but with sharp decline after 1991
- ICBM-focused after 1965
- SLBMs somewhat rebuilt after 1991 drop, but with
  - Somewhat stabilized around 750 vehicles

- ICBM-focused but with significant decline after 2000
- SLBMs sharply reduced after 1990s
- Bombers steady
- Heading toward less than 500 vehicles in 2012
The slide titled "U.S. and Russian Strategic Warhead Distribution" presents data on the distribution of strategic warheads from the U.S. and Russia over time. The graphs show the following key points:

**U.S. Strategic Warhead Distribution**
- ICBM-focused but with significant decline after 2000.
- SLBM increase after 1980s, but decline after 2000.
- Bombers relatively steady but with greater share coming.
- Future: sea-based focus.

**Soviet/Russian Strategic Warhead Distribution**
- ICBM-focused but with significant decline after 2000.
- SLBM increase after 1980s, but decline after 2000.
- Bombers relatively steady but with greater share coming.
- Future: even split.
Russian Strategic Warhead Projection

- ICBMs to drop blow 200 to less than half of US ICBMs
- SLBMs increase slightly
- Bombers steady
- Shift from ICBM- to SLBM-focused posture

- New ICBM MIRV will compensate some but not offset SS-18/19 retirement
- SLBM warhead will increase by about 50 percent
- Bombers relatively steady
- Shift from ICBM- to SLBM-focused deployment
Options for Deeper Reductions

- Expected U.S. and Russian deployed strategic warhead levels relatively similar for 2010-2020 period; distribution on forces different, but good basis for joint reductions

- Possible force adjustments for SORT follow-on:
  - U.S. could reduce ICBM force by half to better match Russian ICBMs if...
  - Reinstate de-MIRVing of ICBMs (START II agreed)
  - Both countries should de-MIRV SLBMs and reduce SSBN fleet
  - Russia can reduce its bomber weapons significantly
  - Consider denuclearizing one leg of Triad
  - Both should declare total warhead inventory and dismantlement numbers
  - Get those tactical weapons under control!