Introduction

- This PowerPoint describes key nuclear arms control issues as of mid-2013 and issues for future negotiations, including:
  - New START
  - Possible next steps on strategic forces
  - Non-strategic nuclear weapons
  - Missile defense issues
New Strategic Arms Reduction Treaty (New START)
New START

- Signed in April 2010 in Prague
- Entered into force in February 2011
Main Treaty Provisions

- US and Russia limited to no more than
  - 700 deployed strategic delivery vehicles
  - 800 deployed and non-deployed launchers
  - 1550 deployed strategic warheads
- Limits to be implemented by February 2018
- Verification measures include data exchange, notifications, on-site inspections
Deployed Strategic Delivery Vehicle (SDV) Limit

• **700** deployed strategic delivery vehicles
  - ICBMs
  - SLBMs
  - Nuclear-capable bombers

• “Deployed” missiles are in silos or launch tubes on submarines
Deployed and Non-Deployed Launcher Limit

- **800** deployed and non-deployed ICBM/SLBM launchers and nuclear-capable bombers
- “Non-deployed” launchers are ICBM silos or launch tubes on submarines that contain *no* missile
Deployed Warhead Limit

- Each side limited to **1550** warheads on deployed strategic delivery vehicles
  - All warheads on deployed ICBMs/SLBMs count
  - Each deployed nuclear-capable bomber attributed as one warhead
    - Arms control traditionally has given bombers preferential treatment (long flight times make them less usable in a surprise attack)
Treaty Implementation

• Since treaty entered into force
  • Four data exchange updates
  • 4500+ treaty notifications exchanged
• Each side allowed to conduct 18 inspections per year; as of June 13
  • US conducted 7 inspections in Russia during treaty year 3 (began February 2013)
  • Russia conducted 8 inspections in US during treaty year 3 (began February 2013)
New START Numbers, March 2013

<table>
<thead>
<tr>
<th>New START Limit</th>
<th>US</th>
<th>Russia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deployed SDVs (700)</td>
<td>792</td>
<td>492</td>
</tr>
<tr>
<td>Deployed/non-deployed launchers and HBs (800)</td>
<td>1028</td>
<td>900</td>
</tr>
<tr>
<td>Deployed warheads (1550)</td>
<td>1654</td>
<td>1480</td>
</tr>
</tbody>
</table>
Notional US Force When New START Fully Implemented

<table>
<thead>
<tr>
<th></th>
<th>New START Limits</th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>700$^1$</td>
<td>800$^2$</td>
<td>1550</td>
<td></td>
</tr>
<tr>
<td>ICBM systems</td>
<td>400</td>
<td>450</td>
<td>400</td>
<td></td>
</tr>
<tr>
<td>SLBM systems</td>
<td>240</td>
<td>280</td>
<td>1090</td>
<td></td>
</tr>
<tr>
<td>Bombers</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td></td>
</tr>
</tbody>
</table>

Notes:
1. Assumes US deploys 400 ICBMs and 60 nuclear-capable bombers; US might instead deploy 420 ICBMs and 40 bombers or some mix in between
2. Room for 10 additional “non-deployed” launchers under 800 limit
Next Steps on Strategic Forces
US Views on Next Steps

• President Obama on June 19 called for US and Russia to negotiate further reductions to one-third below New START levels
  • Would cut each side from 1550 to 1000-1100 deployed strategic warheads
Russian Views on Next Steps

• Little enthusiasm for new negotiations
  • Link further reductions to issues like missile defense and multilateralization of reductions
• But Moscow may have incentives to engage
  • US can stay at New START levels with current force structure; Russia must build new subs and missiles or fall well below New START levels
• US has advantage in reserve strategic warheads
Key Issues Raised by Russia

• Missile defense – see slides 30-35
• Multilateralization – US and Russia control more than 90% of world’s nuclear weapons
  • US and Russia could each cut stockpiles in half and remain 6-7 times larger than next power
  • Instead of multilateral negotiation, ask UK, France and China to make unilateral no-increase commitments?
World’s Nuclear Powers

<table>
<thead>
<tr>
<th>Country</th>
<th>Military Stockpile</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>4650</td>
</tr>
<tr>
<td>Russia</td>
<td>4500</td>
</tr>
<tr>
<td>France</td>
<td>300</td>
</tr>
<tr>
<td>China</td>
<td>250</td>
</tr>
<tr>
<td>UK</td>
<td>225</td>
</tr>
<tr>
<td>Israel</td>
<td>80</td>
</tr>
<tr>
<td>Pakistan</td>
<td>110-120</td>
</tr>
<tr>
<td>India</td>
<td>90-110</td>
</tr>
<tr>
<td>North Korea</td>
<td>&lt;10</td>
</tr>
</tbody>
</table>
Key Strategic Questions for Next Negotiation

• Reduce New START’s 700/800 limits as well as 1550 deployed strategic warhead limit?
• Revisit bomber weapon counting rule?
• Limit reserve strategic warheads?
• Form of agreement
  • Legally binding treaty or protocol?
  • Less formal arrangement, e.g., politically-agreed parallel reductions?
Limiting Nuclear Weapons Other Than Deployed Strategic
Time to Include Other Weapons?

- New START limits only deployed strategic warheads, covering only part of US and Russian nuclear stockpiles
  - Non-deployed (reserve) strategic warheads not constrained
  - Non-strategic (tactical) nuclear weapons not constrained
## Estimated US, Russia Nuclear Warhead Levels

<table>
<thead>
<tr>
<th>Category</th>
<th>US</th>
<th>Russia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deployed strategic *</td>
<td>~1950</td>
<td>~1740</td>
</tr>
<tr>
<td>Nonstrategic (tactical)</td>
<td>~500</td>
<td>~2000</td>
</tr>
<tr>
<td>Non-deployed (reserve) strategic (Stockpile)</td>
<td>~2200</td>
<td>~700</td>
</tr>
<tr>
<td></td>
<td>(~4650)</td>
<td>(~4450)</td>
</tr>
<tr>
<td>Retired warheads **</td>
<td>~3000</td>
<td>~4000</td>
</tr>
<tr>
<td>Total warheads</td>
<td>~7700</td>
<td>~8500</td>
</tr>
</tbody>
</table>

* Estimated actual number, not New START accountable number

** Retired warheads have been removed from stockpile and await dismantlement
Interest in Broadening

• US allies concerned about Russian advantage in non-strategic weapons
• Senate in 2010 asked administration to seek to negotiate reduction of Russian advantage in non-strategic weapons
• Russian military interested in reducing US advantage in reserve strategic weapons?
Non-Strategic Nuclear Weapons (NSNW)
## Current NSNW Balance

<table>
<thead>
<tr>
<th>Category</th>
<th>US</th>
<th>Russia*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air-Delivered</td>
<td>500</td>
<td>~730</td>
</tr>
<tr>
<td>Anti-Missile/Air Defense</td>
<td>0</td>
<td>~430</td>
</tr>
<tr>
<td>Ground-Based</td>
<td>0</td>
<td>~170</td>
</tr>
<tr>
<td>Naval</td>
<td>0</td>
<td>~700</td>
</tr>
<tr>
<td><strong>Total Active</strong></td>
<td>~500</td>
<td>~2000</td>
</tr>
</tbody>
</table>

Note:

* Some estimate larger Russian inventory; do those estimates include weapons that may be retired and awaiting dismantlement?
US NSNW Sites in Europe

- US believed to deploy ~200 B61 nuclear bombs in Europe
  - At six air bases in Italy, Belgium, Germany, Netherlands and Turkey
  - Deployed for use by US and allied air forces
US, NATO and NSNW

- May 2012 NATO summit released Deterrence and Defense Posture Review
  - Reaffirms NATO as nuclear alliance
  - NATO prepared to consider reducing NSNW if reciprocal steps by Russia
  - NATO call for transparency on NSNW
- President Obama on June 19 called for “bold” reductions in US and Russian NSNW
Key NSNW Arms Control Issues

• Reduce/limit warheads or delivery systems?
  • Delivery systems have conventional roles

• Seek to apply global or regional limits?
  • NSNW transportability argues for global

• Verification challenges
Possible Confidence-Building Measures

- Transparency regarding numbers, types, locations and status of NSNW
- Codify “demating” – separation – of warheads from delivery systems
- Relocate/consolidate NSNW to sites away from NATO-Russia border
  - Asian states want no NSNW relocation to Asia
Possible National Steps

• No-increase commitment by US, Russia
  • Limited practical and political effect
• Parallel unilateral reductions, e.g., US and Russia reduce their NSNW by 50%
  • 1991 parallel reductions eliminated thousands of nuclear weapons on each side
Negotiated Outcomes

- Negotiate limit applying to NSNW only
  - Difficult given large numerical disparity
- Negotiate single limit covering all strategic and non-strategic nuclear warheads
  - Could require long time to negotiate
- Phased approach
  - Transparency => CBMs => negotiated limits
Example of Single Limit

- Limit of 2000-2500 total nuclear warheads each for US and Russia
  - Sublimit of 1000 deployed strategic warheads
  - Sides free to choose mix of non-deployed strategic and non-strategic warheads
- Result = significant cuts on both sides
- But how long to negotiate?
Missile Defense (MD) Issues
Missile Defense

• Russians link further nuclear reductions to resolution of missile defense
  • Cite offense-defense interrelationship
• US acknowledges interrelationship but says its planned MD directed against rogue states (North Korea, Iran) and poses no threat to Russian strategic missiles
US Missle Defense in Europe

- US Navy ships with SM-3 missile defense interceptors now operate near Europe
  - Supporting radar deployed in Turkey
- Later phases to deploy SM-3s on shore in Romania, Poland
Phase 4 Cancellation

• Phase 4 of European missile defense plan cancelled in March
  • Goal was to give SM-3 capability in 2022 to engage ICBM warheads
• Cancellation eliminated phase of greatest concern to Russia
  • Creates opportunity to resolve missile defense differences?
NATO-Russia Cooperation

• NATO and Russia agreed in 2010 to explore missile defense cooperation
• Moscow seeks “legal guarantee” that US MD not directed against Russian missiles
  • US ready to provide political assurance
  • If sides can get past this impasse, views converge on many elements of cooperative missile defense system
Converging Ideas on Cooperation

• NATO and Russia would retain control of own interceptor launch decision
• Elements of cooperative missile defense:
  • Transparency
  • Joint NATO-Russia MD exercises
  • Jointly manned NATO-Russia data fusion center to share warning data and operations/planning center to explore further integration
Future Prospects
New Negotiation Possible?

- Moscow’s response to President Obama’s call for further cuts cool, but door not shut
- Consultations ongoing in run-up to September Obama-Putin summit
  - US hopes summit will produce principles for missile defense resolution and further nuclear arms reduction negotiation
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>DDPR</td>
<td>Deterrence and Defense Posture Review</td>
</tr>
<tr>
<td>HB</td>
<td>(Nuclear-capable) Heavy Bomber</td>
</tr>
<tr>
<td>ICBM</td>
<td>Intercontinental Ballistic Missile</td>
</tr>
<tr>
<td>MD</td>
<td>Missile Defense</td>
</tr>
<tr>
<td>NATO</td>
<td>North Atlantic Treaty Organization</td>
</tr>
<tr>
<td>NSNW</td>
<td>Non-Strategic Nuclear Weapon</td>
</tr>
<tr>
<td>SDV</td>
<td>Strategic Delivery Vehicle</td>
</tr>
<tr>
<td>SLBM</td>
<td>Submarine-Launched Ballistic Missile</td>
</tr>
<tr>
<td>START</td>
<td>Strategic Arms Reduction Treaty</td>
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</tbody>
</table>
For Further Information


The Next Round: The United States and Nuclear Arms Reductions After New START,” November 2010
http://www.brookings.edu/~media/Files/rc/articles/2010/12_arms_control_pifer/12_arms_control_pifer.pdf

“NATO, Nuclear Weapons and Arms Control,” July 2011

“Missile Defense in Europe: Cooperation or Contention?,” May 2012
http://www.brookings.edu/reports/2012/0508_missile_defense_Pifer.aspx
Sources

Slide 9: Figures drawn from US Department of State website
Slide 10: March 2013 US-Russia New START data exchange