Advanced Conventional Weapons and the Changing Nature of International Security

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Three stages in evolution of great power deterrence:

- Past (Cold War): Nuclear deterrence.
- Present: Mixed nuclear-conventional deterrence.
 Technologically, both components date back to late days of the Cold War with limited advancements
- Future: Mixed nuclear-conventional deterrence with hypersonic delivery vehicles.

Past – reasonably stable

Present – still stable, but plenty of uncertainty and higher risk of escalation

Future – highly unstable with high probability of conflict and rapid escalation.

We lack arms control tools to mitigate dangers.



Cold War deterrence:

 Primary, if not exclusive, reliance on unusable weapons. Although effective deterrence presupposes credible ability to use, all parties understood war would be suicidal.



- Defensive in nature: credible use in that context means credibility of response.
- Significant warning time allowed to reassess the situation and, if necessary, contact the other side (hot line arrangements).

Arms control helped further stabilize the relationship.



Only serious crisis – INF stand-off, especially Pershing II deployment in 1983. With 7-8 minutes flight time (2-4 minutes to respond), favored instant response, unavoidable loss of political and military control.



Crisis was resolved through the 1987 INF Treaty or, more precisely, Gorbachev's preferences. INF Treaty was not preordained: arms race could have continued.

Today, "Gorbachev solution" unlikely. Both US and Russia seem to prefer arms race approach to resolving perceived threats.



Present: Mixed nuclear-conventional deterrence.

Unlike nuclear, conventional weapons are usable. Have been used in support of foreign policy multiple times since Gulf I.

Advanced conventional weapons allowed the United States and NATO to reduce reliance on nuclear weapons.



Russia (to smaller extent China) was concerned about limited use for limited goals (change policy, not destroy country) following the Kosovo scenario.

Russian response – limited use of nuclear weapons (2000 Military Doctrine). Declared temporary fix until conventional forces are modernized.



- 2014 Military Doctrine introduced conventional deterrence. First use in conflict – 2015 in Syria.
- US lost monopoly on advanced conventional weapons it had enjoyed for quarter century.
- Russia began to reduce reliance on nuclear weapons (similar to US in 1990s), but very quickly the process has stopped as a result of worsening political crisis.



Russian advanced conventional weapons can reach almost the entire Europe from Black and Caspian Seas, more so from Baltic. Disrupt NATO defense to the entire depth and unerimine NATO air power.





Iskander-M nuclear-capable land-based ball

Iskanders in Kaliningrad part of the same conventional mission at tactical range.



US/NATO response – not yet clear. 2018 Nuclear Posture Review seems to return to greater role of nuclear weapons, but evidence is not conclusive.

NATO may be moving same way. Strategic Concept based on



"appropriate mix" of nuclear, conventional, and defense assets – that is, inherently flexible and subject to change. No decisions yet.

Looming possibility in 2-3 years – discussion about moving B-61 bombs to Poland and giving Poland a role in nuclear sharing (B-61s are virtually unusable from current locations).



Arms control

Worked reasonably well while contained to nuclear weapons. Then – deadlock since early 2000s (2010 New START was a stop-gap measure that did not change the trend).

Russia, for many years, has insisted on including at least three elements – nuclear, precision-guided conventional, and missile defense. US has equally consistently refused: it held monopoly on conventional and strongly believed in primacy of its missile defense technology.

The situation has changed: Russia has conventional capability and is fast moving ahead with missile defense; the US position has become (or is quickly becoming) obsolete, but has not yet changed.



Still unclear whether US will change its current approach: political climate is not conducive to any arms control endeavors. The package was discussed, in broad terms and in preliminary fashion, at Ryabkov-Shannon strategic stability consultations last year. These have ceased for unrelated reasons.

Russian position may change in favor of stalemate until conventional modernization and buildup completed (at least several years). Its position on conventional and MD will likely be tougher than 5-7 years ago.



Future: Advent of Hypersonic Weapons.

Combine the most dangerous features of existing nuclear and conventional weapons:

- Extremely short warning time (return to the Pershing II challenge of early 1980s at new level). Leaders will not have enough time to assess warning and will be prone to instant response to first, unconfirmed reports.
- Usability: conventional version does not have the same stigma as nuclear, fewer and lower barriers to use.
- Dual capability: the other side will not know whether weapons launched are nuclear or conventional, will be prone to assume the worst.



Effectively, a return to early 20th century at a new level. Then, mobilization was tantamount to declaration of war, point of no return. Next decade, deployment of hypersonic delivery systems in ready-to-launch mode may be seen as impending war and trigger preemptive strike. Deterrence, conventional and nuclear, will become extremely fragile.

Bottom line – in 5-7 years the military situation will become not just unstable, but outright dangerous. If the current political crisis continues, war is almost assured. Even if conflict starts as limited and conventional, it will likely quickly escalate to large-scale nuclear.



Timeline – middle to end of the next decade. For the first time, the United States will not enjoy initial monopoly. First weapons may be deployed next year; Russia and China will probably lead (still unclear which one, difference only 1-2 years), but these will be short-range and limited capability (anti-ship). Long-range versions will take at least several years longer.





Arms Control in Hypersonic Age

In theory, same principles as for existing conventional weapons (similar missiles, same platforms – ships, submarines, aircraft), but we have never tried arms control for these either.

Key challenges:

- Limits: small number of conventional weapons is not dangerous, small number of nuclear weapons is. How strictly we should limit each category?
- Discrimination: distinguishing between nuclear and conventional mode for same weapons systems;
- Verification: very limited experience with cruise missiles (only indirect via accounting of heavy bombers), no experience with ships and submarines, no experience with short-range weapons.



Requirements for arms control:

- Develop control and accounting for nuclear weapons, including those in storage (will help to know how many and perhaps which dual-capable systems are equipped with nuclear warheads);
- Develop extensive and restrictive confidence building measures at least at theater level, better global or hemispheric to limit number and concentration of platforms for conventional hypersonics;
- Develop limited verification options for aircraft, ships and submarines carrying long- and shorter-range hypersonic missiles;
- Develop limited verification options for land-based hypersonic weapons (short-range category only if INF Treaty holds).



Challenges ahead mandate early start of serious arms control work so that when long-range hypersonic weapons are deployed we can mitigate their impact. Can begin now by addressing existing generation of advanced conventional weapons – results will be directly applicable to hypersonics.

Can we muster enough political will to launch the process? Difficult to imagine under present circumstances, but it's a matter of survival.