

**Early Career Nuclear Risk Reduction Fellows Research Project:
Conceptualizing Tangible Measures to Increase Strategic Stability
and Reduce Nuclear Threats**

Purpose

To help guide the Fellows and their CSR mentors in the collaborative formulation of tangible concepts on restraint, arms control or nuclear weapons reductions across various combinations of countries.

Selecting Measures to Explore

- **Level of challenge:** Address extremely tough problems (multi-party concepts, weapons that are relatively harder to verify compared to others) or those that present options that countries *should* have a relatively simpler time deciding to pursue?
- **Breadth or depth:** Should the focus be broad or narrow? For example, all ballistic or cruise missiles, a class of them (e.g., short range ballistic missiles), a specific type (SLCM-N), or a mix?
- **Aspect to be prioritized:**
 - **Risk of use:** Should the focus be on nuclear weapons that are most likely to contribute to use/miscalculation in the near term or long term? Or most likely to be part of an accidental use - linked to error, technical malfunction or false alarm – if that is even discernible?
 - **Proliferation or expansion:** Arms control measures meant to stop further spread of nuclear weapons or a specific type or class of nuclear weapons.
 - **Quantity:** Limiting or eliminating numbers of specific capabilities.
 - **Type:** Limiting or eliminating certain types of nuclear weapons.
 - **Policy:** Changing doctrines or postures, including notification procedures, actions regarding transparency, etc. Other factors?

Questions to Guide Analysis

- Which countries should be focused on for analysis (US-Russia, US-China, China-Russia, P5, NATO-Russia (and satellites), other/all nuclear-armed states)?
- Instead of countries specifically, would a regional focus be more appropriate for your analysis?
- Can commitments be made unilaterally rather than bilaterally or multilaterally? If so, might the actors require reciprocity or parallel commitments; and if yes, what are the political/social/cultural hurdles involved?
- Have the nuclear weapons in question been addressed by past agreements? If yes, who took part and when? How long did those commitments hold? Were they effective in reducing risks? If they did not include an end date but are no longer in force, what caused them to fail or fall by the wayside? Are they still directly relevant, and do they hold lessons for 21st century replacements?
- Does the proposed construct seek to limit the affected weapons (in number, range, other ways); prevent their future production or spread; and/or eliminate current or planned

- capabilities? Or solely shape their presence or absence in a specific region?
- How would such arrangements be verified? Are there relevant verification protocols in past agreements that should serve as a model or results of experiments/studies that can be leveraged? If not part of past agreements, what relevant verification concepts have been explored?
 - In what ways is this in the national security interests of each party? How would it positively or negatively affect regional security, international dynamics, and existing treaties?
 - What are the hurdles and how might they be addressed and overcome?

In applying these questions and considering what future measures could look like, you can refer to CSR's Nuclear Weapons Systems Project to explore what types of nuclear weapons are in today's arsenals and how this has changed over time.

Other Measures: The following types of measures often accompany arms control or reduction steps, including unilateral ones. At times they are private/classified, and others openly public. The following may be considered as elements of your analysis regarding the options you envision (though exploring them is not required).

- Information exchanges
- Political-doctrinal measures: decreasing the role of nuclear weapons in security doctrines and limiting the circumstances in which these weapons may be used, decreasing the ambiguity within doctrines, etc.
- Proactive ambiguity clarification and resolution (e.g., commitments to pre-notify actions susceptible to misinterpretation)
- Crisis and conflict prevention and management mechanisms (e.g., establishing bilateral and multilateral communications links and dedicated, resilient networks for them to operate on)
- Commitment to de-alerting and de-targeting of nuclear weapons
- Restrained decision protocols
- Mandatory notifications
- Annual verification concept development/exercises
- Changing deployments or operational procedures, including launch, storage and transport procedures

CODE OF NUCLEAR RESPONSIBILITY

Ten Commitments to Nuclear Strategic Stability



RESTRAINT

1. Exercise maximum restraint in rhetoric, posture, readiness, and activity. 2. Ensure sufficient communications channels exist at leadership levels



RELEVANCE

3. Refrain from employing nuclear weapons as tools of statecraft, except in the case of strategic deterrence



REASSURANCE

4. Reassure non-nuclear weapon states of declaratory policy. 5. Adjust nuclear postures to strengthen negative security assurances to non-nuclear weapon states.



READINESS

6. Shift readiness of strategic nuclear weapons to reflect measures to improve restraint and provide reassurance.



RECIPROCITY

7. Seek areas for mutual reciprocity in posture, policy, and doctrine to bolster stability. 8. Agree not to target early warning and command and control systems.



REDUCTION

9. Chart new paths for reductions in nuclear weapons and achieve progress. 10. Seek new opportunities to reduce the relevance and readiness of nuclear weapons.