

Report on

The Nature of Multilateral Strategic Stability



International Security Advisory Board

April 27, 2016

Disclaimer

This is a report of the International Security Advisory Board (ISAB), a Federal Advisory Committee established to provide the Department of State with a continuing source of independent insight, advice, and innovation on scientific, military, diplomatic, political, and public diplomacy aspects of arms control, disarmament, international security, and nonproliferation. The views expressed herein do not represent official positions or policies of the Department of State or any other entity of the United States Government.

While all ISAB members have approved this report and its recommendations, and agree they merit consideration by policy-makers, some members may not subscribe to the particular wording on every point.



United States Department of State

Washington, D.C. 20520

April 27, 2016

MEMORANDUM FOR UNDER SECRETARY GOTTEMOELLER

SUBJECT: Final Report of the International Security Advisory Board (ISAB) on Strategic Stability

I am forwarding herewith the ISAB's short report on Strategic Stability, which provides unclassified extracts of key portions of the ISAB classified report on P5 Plus Strategic Stability dated March 18, 2016 (terms of reference for the full report are in Appendix A). The present report was drafted by the same Study Group chaired by Dr. Raymond Jeanloz that drafted the classified report, and it was reviewed and approved by the ISAB on April 27, 2016.

The report outlines a framework for strategic stability, the ultimate aim of which is prevention of nuclear war. It offers an initial attempt to identify stabilizing characteristics and practices for any state possessing nuclear weapons that, if found to be beneficial, could encourage multinational identification and discussion of such characteristics and practices. The report is intended to inform a broad audience within the United States and beyond.

I encourage you to consider the report's reasoning and recommendations. The Board stands ready to brief you and other members of the Administration on the report.

A handwritten signature in black ink that reads "Gary Hart".

Hon. Gary Hart

Chairman

International Security Advisory Board

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INTERNATIONAL SECURITY ADVISORY BOARD

Report on

The Nature of Multilateral Strategic Stability

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INTERNATIONAL SECURITY ADVISORY BOARD REPORT ON THE NATURE OF MULTILATERAL STRATEGIC STABILITY

INTRODUCTION

In April 2015, the Under Secretary of State for Arms Control and International Security asked the International Security Advisory Board (ISAB) to undertake a high-level review of strategic stability. Among other things, we were specifically requested to examine conceptual frameworks for extending strategic stability beyond the U.S.-Russia Cold War construct to include nuclear weapons-possessing states more generally.

In preparing our report (which is classified), the ISAB crafted a description of multilateral strategic stability that is intended to encourage broad, international discussion. Because we believe our approach could be useful to analysts inside and outside government who deal with stability issues, we prepared this unclassified document in order to make our analysis widely available.

THE NATURE OF STRATEGIC STABILITY AND OF MULTI-NATIONAL STRATEGIC STABILITY

As elaborated below, the objective of multi-national strategic stability is to reduce the chance that tensions lead to nuclear war, whether by deliberate decision or unintended escalation. The focus is thus on relations between pairs of nuclear-armed states, but because three-party (and more complex) interactions can lead to instability – including by way of non-nuclear states – we take a broad view of the circumstances that can undermine strategic stability and catalyze nuclear conflict.

During the Cold War, strategic stability was a well-understood term used to describe the strategic nuclear relationship between the United States and the Soviet Union. The concept had two principle components:

- The absence of incentives for either side to believe it would benefit from initiating war in a crisis (crisis stability). This included ensuring that neither side believed it would gain an advantage by being the first to use nuclear

weapons or that the other side was capable of a strike that would eliminate its nuclear retaliatory capacity (first-strike stability).

- The absence of any reason to believe that building additional or different strategic forces by either side would alter this situation (arms race stability).

Since the end of the Cold War, the term “strategic stability” has been used in many different ways by many different authors. Some use it in the Cold War sense, while others broaden it to be almost a synonym for “national security policy” or even a general improvement in the international environment in which the use of force is virtually ruled out.¹ We propose that, for present purposes, bilateral strategic stability should be defined essentially by using the Cold War definition, with the understanding that in the modern world all nuclear weapons should be regarded as strategic². As shorthand for this concept we often use the term “reducing the risk of nuclear war.”

We find that, standing alone, the phrase “multi-national strategic stability” is of limited value. The phrase implies that the stability of the international system can be described in an abstract and generalized manner independent of the specific context at issue. We disagree. In our view, multi-national strategic stability is largely the sum of stability between many pairs of nuclear weapons states. One clear exception is the China-India-Pakistan triangle, where relations between any pair of states are influenced by the third. For example, if China increases its nuclear forces in a manner that India believes is directed at them, India may respond by adjusting its own strategic posture and Pakistan may then likely respond by making adjustments of its own. There is a similar relationship among China, Russia and the United States. Both Russia and the United States are reluctant to reduce their strategic forces to a level at which China might attain parity or at least might alter the strategic balance.³ Further, Chinese action in response to an (incorrect) assumption that U.S. national ballistic missile defense is a threat to its strategic forces could, at least in theory, induce a Russian reaction.

¹ For example, see Elbridge A. Colby and Michael S. Gerson (eds.) *Strategic Stability: Contending Interpretations*, U.S. Army War College Press, February 2013.

² We reject the distinction made of “substrategic nuclear weapons” – e.g., relatively low-yield weapons with short-range delivery systems, as in European NATO and the Western parts of Russia. We see any use of nuclear weapons as being “strategic.”

³ Since China’s total stockpile is well under ten percent of either the Russian or American stockpile, this is mainly a theoretical consideration for the foreseeable future. We note, however, Russian officials sometimes asserting that China must be taken account of in the next round of arms control.

Despite these two distinct trilateral relationships, however, we conclude that global nuclear stability is at present best described—and best sought for—through a focus on the sum of individual bilateral relations. Obviously not all conceivable dyads are relevant. For instance, because the concept of strategic stability presumes some degree of adversarial behavior between states, it is difficult to find strategic stability considerations in the nuclear relationship between the United States and the United Kingdom, or between India and France. We regard the following as relevant dyads: Russia with the United States, China, the United Kingdom and France; China with India and the United States; and India with Pakistan.

CHARACTERISTICS AND PRACTICES OF STATES THAT LEAD TO STABILITY: A DRAFT LIST

We believe it should be possible to identify characteristics and practices that, if adhered to by each state in a specific dyad, would result in a more stable relationship between those states. Ideally, therefore, if all states possessing nuclear weapons accepted and adhered to these characteristics, global security would, at least in principle, be enhanced, especially in the sense of reducing the chances of nuclear conflict.

We propose development of a list of these characteristics and practices, recognizing that any such list may describe an ideal world rather than one that is necessarily attainable in the near term. While the ultimate goal would be to reach agreement on identifying and then implementing all of these characteristics and practices among all relevant states, we acknowledge that a process is likely required to build confidence and mutual understanding toward achieving this goal.

A list of ideal characteristics and practices can, however, serve as a standard for responsible international practice, and provide a template for considering specific measures to improve stability. We expect that a list of this kind may take time – and considerable dialog between nations – to be put into effect. In this spirit, we propose the following as an initial draft listing of characteristics and practices enhancing strategic stability: a list to be further developed and improved upon by others.

Policy and Doctrine

- The ability to direct the use of nuclear weapons is limited to the highest authorities in the state.
 - Thus, there is no pre-delegation of release authority.⁴
 - Positive measures, procedural, mechanical or both, are in effect to enforce centralized control.
- Forces are structured and policies established to make nuclear conflict less likely and escalation management more feasible, even if at the risk of complicating war planning.
 - Nuclear forces are survivable, as is their command and control system.
 - Nuclear weapons are regarded as a last resort not an early resort.
 - If used to counter conventional attack, nuclear-weapons are used only in extreme circumstances where the very existence of a state (including a treaty ally) has been threatened.⁵
- States refrain during conventional (or cyber) conflict from using cyber or conventional means to attack distinct nuclear command and control systems, and provide specific assurance in advance to other states that this will be their policy.
- States establish institutionalized mechanisms to help avoid miscalculation. Examples include:
 - Arms control agreements aimed at increasing stability.
 - Ballistic missile launch notification agreements.
 - Avoiding cruise or ballistic missile tests in the direction of other relevant states.
 - Establishing and maintaining good crisis management procedures, including a functioning hotline for urgent communications.
 - Routine bilateral consultations between the militaries of the two countries in order to limit the possibility of misunderstanding in crises and concerns about the structure of each other's forces as indicating an attempt to upset stability.
 - Formal agreements similar to Incidents at Sea or Prevention of Dangerous Military Activities agreements to help avoid minor incidents from escalating to a dangerous confrontation.

⁴ Arrangements for how to act when senior political leadership cannot be reached might be an exception. By discouraging decapitation, such measures are stabilizing if their existence is known.

⁵ Some states may regard changing their current political regime as equivalent to destruction of the state. For states with this viewpoint such a doctrine may provide less comfort than first appears.

- Routine international discussions of nuclear issues aimed at reducing the risk of nuclear war.
- Public statements on nuclear policy are made that are consistent with the above points.

Force structure and posture

- By maintaining a significant and secure second-strike component, states avoid making a first strike attractive. Each state recognizes that the other also has a secure second strike.
- States limit their deployment of strategic (i.e., homeland) ballistic missile defense to levels that do not suggest they are trying to preclude the prospect of a retaliatory second strike by a peer competitor, thus avoiding an offense-defense arms race.
- States maintain clear separation between nuclear and non-nuclear forces and command and control in order to make escalation management more feasible.
- States avoid deployments of nuclear weapons, especially in forward areas, in ways that could lead to a “use-or-lose” situation.
- To further this objective, states operate dual-capable systems (i.e., those capable of delivering both nuclear and non-nuclear warheads) in a manner that minimizes the chance that an adversary will perceive them as engaged in or preparing for nuclear strikes when they are not.
- States routinely conduct exercises and simulations to help understand and prepare for the challenges that will be present in crises.
- States facing nuclear opponents recognize that conventional weakness may tempt a stronger state to attack, which they understand is dangerous because a likely scenario for use of nuclear weapons is one in which there is a major conventional conflict that gets out of hand. As a result, they maintain sufficient conventional force (or security guarantees from stronger powers) to give some opportunity for a successful conventional defense.

Safety

- There is formalized attention to the safety of nuclear stockpiles, both in their normal conditions and during accidents.
 - At a minimum this includes one-point safety and fail-safe designs of all nuclear weapons;⁶

⁶ One point safety means that if the high explosive in the primary stage of a nuclear weapon is detonated at any single point, no nuclear yield will result. The U.S. safety standard is that there is no more than one chance in a million (1 in 10⁶) of nuclear yield from accidents. For these purposes the United States defines “no nuclear yield” as no yield greater than the equivalent of four pounds of TNT. See *Nuclear Matters Handbook 2015*, Chapter 5,

- There are quantitative standards for assessing safety in both normal and accident conditions.
- States establish formal handling procedures designed to reduce the risk of accidents, using, for example, reader-worker approaches.⁷
- States have procedures for dealing with nuclear weapons accidents (for example, a non-nuclear detonation of a weapon that resulted in the scattering of special nuclear material), and those procedures are exercised at regular intervals.⁸
- States seek opportunities, including through public statements, to make their commitment to the safety of their stockpile clear, both to their publics and to other states.

Security

- States give constant attention to ensuring the security of nuclear-weapon (and weapon-component) stockpiles and of stockpiled nuclear materials, whether in garrison, in transit or in the field.
- States have provisions for guarding against insider threats, including, at a minimum:
 - Formal systems such as Personnel Reliability Programs to continuously evaluate critical personnel.
 - Two-person rules for access to weapons and weapons usable material.
- Formal methodologies (such as a Design Basis Threat⁹) are used for establishing and evaluating security procedures. Security procedures are exercised regularly in order to assess and maintain their adequacy.
- There are dedicated guard forces in garrison, in transit and in the field in order to deal with the possibility of an attempt by terrorists, other criminals, hostile states, or internal revolutionaries to gain control of nuclear weapons, components or materials.
- Formal systems for control, protection and accounting of weapons, components and weapons-usable material are established, maintained and audited.

available on-line from the Office of the Secretary of Defense.

(<http://www.acq.osd.mil/ncbdp/nm/NMHB2015/index.htm>).

⁷ “Reader worker” procedures require that maintenance on nuclear weapons is performed by two qualified individuals in accordance with an approved, written checklist. One individual reads each step after which the other individual performs it. See *Nuclear Matters Handbook 2015*, Chapter 7.

⁸ A possible spin-off benefit from discussions on this point could be an agreement to discuss the terms under which states would offer assistance to one another following a nuclear accident.

⁹ Design Basis Threats are formally established threats (“X” attackers using “Y” capabilities and aided by “Z” insiders) used in establishing and evaluating security systems.

- Effective cyber-security capabilities and procedures are in place, practiced and tested.
- States seek opportunities, including through public statements, to make their commitment to the security of their nuclear weapons and materials clear, both to their publics and to other states.

In addition to the specific list above, there are several broader actions that could help prevent nuclear war including:

- Supporting international nuclear nonproliferation norms, including, *inter alia*, not assisting other states to acquire nuclear weapons; maintaining effective export controls; and adhering to and abiding by the IAEA Additional Protocol, and participation in enforcement actions against violations of that protocol.
- Limiting new nuclear weapons development, for example, by forgoing nuclear-explosion testing.
- Rejecting use of terrorism as a tool of national policy.
- Continuing to work toward implementation of Article VI of the Nuclear Nonproliferation Treaty.¹⁰

There are, no doubt, other practices and characteristics that could contribute to strategic stability. Our list is presented in the spirit of starting a dialog.

We emphasize that existing and planned U.S. national missile defense is not inconsistent with asserting that “stability is enhanced by limiting deployment of strategic (i.e., homeland) ballistic missile defense to levels that do not suggest they are trying to preclude the prospect of a retaliatory second strike by a peer competitor, thus avoiding an offense-defense arms race.” While the U.S. system defends the entire United States, it does so only against limited attacks from North Korea or, should it develop nuclear weapons and ICBMs, Iran. The United States does not seek a relationship of strategic stability (as used here) with North Korea or a hypothetical nuclear armed Iran. In contrast, it is not now technically feasible

¹⁰ Article VI reads: “Each of the Parties to the Treaty undertakes to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a Treaty on general and complete disarmament under strict and effective international control.”

to provide a national defense against attack by either Russia or China, two states with which the United States does seek a relationship of strategic stability.

In our discussion of stability thus far, we have assumed that multi-lateral strategic stability is best conceptualized as the envelope of the stability of a series of dyads (Russia-United States, China-India, etc.). The one clear exception is the China-India-Pakistan triad, in which the actions of one state can have impacts on the stability of relations among the three as noted above.¹¹

IMPROVING MULTI-NATIONAL STRATEGIC STABILITY

While we have focused our analysis thus far on bilateral “strategic stability,” the phrase has proven confusing even when used among nuclear weapons states because of widely varying understanding of what it means in the 21st century. The confusion and concerns with the phrase “strategic stability” lead the ISAB to conclude we need a new approach and language for discussing nuclear war prevention. Rather than using language that is laden with Cold War meaning, we favor maintaining a focus on the underlying objective of reducing the chances of nuclear war, and using as an organizing principle for discussions “agreed characteristics and practices of states possessing nuclear weapons so as to reduce the risks of war.”

CONCLUSIONS ON MULTI-NATIONAL STRATEGIC STABILITY

The discussion provided above leads to the following conclusions:

- The objective of strategic stability is to avoid the initiation of nuclear war and of developments that could lead in that direction.
- Strategic stability between nuclear-armed states means policies, forces and postures that provide no incentive to be the first to use military force in crisis (“crisis stability”) and no incentive to be the first to use nuclear weapons in the event of conventional conflict (“first strike stability”) and where neither side believes they can improve their relative position by building more nuclear weapons (“arms race stability”).

¹¹ We provide only a few examples here and acknowledge many other possible catalysts for instability, including attacks on cyber-systems, potentially taking on a prominent destabilizing role.

- Seeking an overarching description of multi-national strategic stability is not practicable or likely to be productive. Multi-national strategic stability is best thought of as the sum of stabilities between pairs of states possessing nuclear weapons. One clear exception is the China-India-Pakistan triangle, where the action of any one state can influence the actions of both of the others.
- An idealized set of the characteristics of strategic stability between any hypothetical pair of nuclear-armed adversaries is set forth in this report. It is unlikely that all of these characteristics will exist in the real world, but we offer this listing as a starting point for both bilateral and multilateral discussions.
- Even though future international discussions may be designed to improve strategic stability, the phrase itself has not proven useful because of widely varying understanding of what it means in the 21st century. Therefore discussions with other states should not use this specific phrase, and the organizing principle for discussions should instead be “agreed characteristics and practices of states possessing nuclear weapons so as to reduce the risks of war, especially war with a risk of escalation to the potential use of nuclear weapons.”

RECOMMENDATION

Analysts working on issues of strategic stability should consider the approach set forth in this report.

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Appendix A – Terms of Reference

**UNDER SECRETARY OF STATE FOR
ARMS CONTROL AND INTERNATIONAL SECURITY
WASHINGTON**

April 7, 2015

MEMORANDUM FOR THE CHAIRMAN, INTERNATIONAL SECURITY ADVISORY BOARD (ISAB)

SUBJECT: Terms of Reference – ISAB Study on P5 Plus Strategic Stability

The International Security Advisory Board (ISAB) is requested to undertake a high-level review of the political and policy related barriers to convening strategic stability talks among the P5 plus India and Pakistan, and recommend strategies for structuring and advancing such talks within the P5 Plus.

Strategic stability includes interrelated topics such as extended deterrence, the impact of further nuclear reductions, regional political and military contexts, the role of missile defenses, and the influence of long-range conventional strike systems. The United States has held strategic stability discussions with Russia, and is beginning to raise the subject with China. The United States also has chaired a series of P5 Plus talks (including India and Pakistan) that were primarily focused on a Fissile Material Cutoff Treaty; however, this group has not convened for over a year. A number of barriers to such talks exist, including political resistance, legal, and policy barriers related to the NPT, a lack of an agreed understanding of what constitutes strategic stability within the post-Cold War international system, and the need for greater analytic attention. The establishment of a multilateral strategic stability discussion structure, in effectively encouraging engagement among India, Pakistan and the P5 would increase understanding of strategic stability across this grouping, again called “the P5 Plus”.

It would be of great assistance if the ISAB could examine and assess as an introductory matter:

- conceptual frameworks for extending strategic stability beyond the U.S.-Russia cold war construct to include the P5, India and Pakistan; these may include considering the application of game theory approaches to P5 Plus strategic stability;
- the potential structure of strategic stability talks for the P5 Plus; this may include consideration of how to handle legitimate policy concerns regarding interactions between the NPT nuclear weapons states and non-parties;
- solutions to overcome both political and policy barriers and provide incentives, particularly with India and Pakistan, to convene P5 Plus talks.

Materials produced in this introductory examination and assessment of the issues could then be used by the Department and interagency to consider the launch of a multilateral strategic stability dialogue among the P5, India, and Pakistan. The goal of such discussions would be to develop and enrich the environment for future formal negotiations of arms reduction and control measures.

During its conduct of the study, the ISAB, as it deems necessary, may expand on the tasks listed above. I request that you complete the study in 270 days. Completed work should be submitted to the ISAB Executive Directorate no later than January 2016.

The Under Secretary of State for Arms Control and International Security will sponsor the study. The Assistant Secretary of State for Arms Control, Verification and Compliance will support the study. Michael Edinger will serve as the Executive Secretary for the study and Chris Herrick will represent the ISAB Executive Directorate.

The study will be conducted in accordance with the provisions of P.L. 92-463, the Federal Advisory Committee Act. If the ISAB establishes a working group to assist in its study, the working group must present its report of findings to the full ISAB for consideration in a formal meeting, prior to presenting the report or findings to the Department.



Rose E. Gottemoeller

Appendix B – Members and Project Staff

Board Members

Hon. Gary Hart (Chairman)

Hon. Charles B. Curtis (Vice Chairman)

Hon. Graham Allison

Amb. Brooke Anderson

Hon. Douglas Bereuter

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Amb. Linton F. Brooks

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