

Report on
Mutual Assured Stability: Essential
Components and Near Term Actions



International Security Advisory Board

August 14, 2012

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.



United States Department of State

Washington, D.C. 20520

August 14, 2012

MEMORANDUM FOR ACTING U/S ROSE E. GOTTEMOELLER

SUBJECT: Final Report of the International Security Advisory Board (ISAB) on Mutual Assured Stability: Essential Components and Near Term Actions

I am forwarding herewith the ISAB's report on Mutual Assured Stability: Essential Components and Near Term Actions. The report responds, in part, to former Under Secretary Ellen Tauscher's request of July 5, 2011, that the Board undertake a study on strategic deterrence and the path to a world of mutual assured stability. Additional reports also address this study topic. The report was drafted by members of a Study Group chaired by Dr. Graham Allison. It was reviewed by all ISAB members and unanimously approved by August 13, 2012.

The report analyzes the concept of mutual assured stability by first proposing a definition of the desired end state. The report then describes some essential components necessary for achieving the end state. The report considers the U.S.-Russia relationship, and then considers relationships beyond Russia. The report discusses some of the key risk factors and proposes that rigorous testing against these factors be conducted at every step along the path to mutual assured stability, particularly as stockpiles are reduced to very small sizes. Finally, the report recommends near-term actions to be taken in the bilateral relationship with Russia.

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

A handwritten signature in black ink that reads "William J. Perry".

William J. Perry

Chairman

International Security Advisory Board

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INTERNATIONAL SECURITY ADVISORY BOARD

Report on Mutual Assured Stability: Essential Components and Near Term Actions

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Report on

Mutual Assured Stability: Essential Components and Near Term Actions¹

TASKING. The International Security Advisory Board (ISAB) was asked to undertake a study of how the United States could pursue and manage a transition from a world of mutual assured destruction to a world of mutual assured stability, characterized by increasingly interdependent states having incentives to cooperate on political, military, and economic issues, reducing the need for adversarial approaches to managing security challenges. Among the topics that the ISAB was asked to examine and assess in this area was:

- The possible components of mutual assured stability and what the United States would need to see happening to have the confidence to consider very low numbers and, eventually, agree to the elimination of nuclear weapons.

This report primarily addresses the above topic.

Introduction

This report explores the topic of mutual assured stability by first proposing a definition for the desired end state, next defining the essential components for mutual assured stability as requested in the Terms of Reference, then analyzing key risk factors that should be assessed at every step, and finally offering possible near-term tangible steps in that direction. This report does not assess the feasibility of the desired end state, nor the feasibility of achieving the proposed essential components. These proposed components are essential to achieving mutual assured stability, but most likely are not sufficient. As circumstances change with

¹While all ISAB members have approved this report and its recommendations, and agree they merit consideration by policy-makers, some members do not subscribe to the particular wording on every point.

Russia, other components may be required, and if the focus moves beyond Russia, clearly other components will be required. If progress is made in creating the proposed components, that achievement could contribute to confidence in achieving the end state, and likewise, the inability to build the components could call into question the feasibility of the end state.

The board observed that the Terms of Reference conflates two different end states, (1) a cooperative world of “increased trust and transparency” without “adversarial approaches to managing security challenges” in which deterrence is no longer necessary, and (2) an end state defined by the narrower issue of a world with drastically reduced (and ultimately eliminated) nuclear arsenals, and associated reductions in security challenges which could drive nations to the acquisition and/or use of nuclear weapons. In fact, some may interpret the first end state as a world free of war. The report focuses on the second end state, recognizing that if the first end state were achieved with no possibility of serious military conflict, there would be no need for nuclear weapons; however, the first end state may be unrealistic to achieve in an acceptable timeframe.

The components offered in this report are proposed as part of the building blocks that the United States would need to create to have confidence to consider very low numbers, or, in the longer term, to consider agreeing to the elimination of nuclear weapons. This report is not a plan to build the essential components, or to achieve mutual assured stability, and the ISAB recognizes that significant additional work will be required to develop such plans.²

Desired End-State

This report uses the methodology of first exploring the desired end state. Based on the guidance in the Terms of Reference and focusing on nuclear arsenals and nuclear conflict, a definition for the desired end state was developed:

A relationship among nations and international organizations (such as the European Union) in which nuclear weapons are no longer a central feature

²Three members agree with the recommendations, and the desirability and feasibility of negotiating substantial reductions in nuclear weapons. However, these members do not believe that the conditions which the paper describes as necessary to realize mutual assured security, are either likely ever to arise, or necessary for the substantial reductions in nuclear weapons that they favor.

for their security, deterrence based on nuclear destruction is no longer necessary, and the likelihood of nuclear war is treated as remote because their relationship is free of major, core security issues such as ideological, territorial, or natural resource competition issues, and the benefits from peaceful integration in economic, political, and diplomatic spheres provide a counterbalance to the perceived advantages of nuclear conflict.

Building such a relationship between the United States and Russia is a critical, first step because our nuclear weapons stockpiles are so large as to overshadow other nations' stockpiles. However, though our historic adversarial relationship has improved, working toward such a relationship with Russia will be very difficult, if achievable at all. The dynamic nature of the existing relationship with Russia requires a continuous assessment to determine opportune times to engage in actions to build a new relationship. Achieving such a relationship between Russia and the United States may also affect other regions and nations, and their national security, possibly requiring actions to address concerns that may arise.

U.S.-Russia Mutual Assured Stability

The U.S.-Russia relationship during the Cold War was characterized for more than forty years by suspicion and distrust on the part of both sides, with many specific incidents in history to justify these strongly held feelings. Indeed, the two political and economic systems were fundamentally incompatible. During the Cold War, the two countries existed as deadly adversaries, which left scars of mistrust and an undertow of negativism, especially in both national security establishments. In the intervening years, with the demise of Soviet communism, some modest progress has been made in developing trust, however by its nature this change will take many years. Indeed there remain many fundamental differences and conflicts in values and interests; however, some further reductions of nuclear arsenals do not require achieving full trust, total cooperation and complete alignment of all national interests.

As we strive to make progress in the U.S.-Russia relationship, with consideration of the desired end state, the following characteristics can serve as goals:

- The benefits of peaceful interaction in economic, political, and diplomatic spheres may provide a valuable counterbalance to the perceived advantages of conflict.
- Neither side bases decisions on nuclear force structure, posture, or doctrine on an assumption that the other is an adversary or likely to engage in nuclear conflict.
- Neither side seeks to steal a march on the other with nuclear weapons procurement, deployment, or employment policy, and the sides are in rough parity despite differences in preference for tactical vs. strategic, or reserve (i.e. hedge) vs. deployed weapons, even as each side will inevitably pursue modernization of its forces.
- Neither side poses a threat to the core security interests of the other, especially in realms of border disputes, ideological conflicts, or competition for natural resources.

Clearly, achieving these goals will require significant change in both countries and may require many years, if achievable at all. However, if such a state is reached, it will create a new era in relations between the United States and Russia. Though steps between the United States and Russia are the first priority, these steps are not decoupled from the rest of the nations of the world, and each major step must be reviewed with regard to interpretation by and effect on other nations. If risk of instability with other nations is created by actions for greater stability with Russia, e.g., allies lose confidence in our extended deterrence, mitigating actions will be necessary.

Mutual Assured Stability: Essential Components for the U.S.-Russia Relationship

Six components are proposed that we assess as essential, though not sufficient, if we are to create a mutual assured stability framework for the U.S.-Russia relationship. Progress toward these essential components can serve as a set of measures against which to test the progress in developing this new relationship with Russia, and to assess our level of confidence to go to lower numbers of nuclear weapons. The essential components cover three key areas: Cooperative

Security, underpinned by Clarity & Assurance, and motivated by Beneficial Interdependence.

Cooperative Security

Mutual Responsibility: The United States and Russia join together around the values, norms, and motives they share, commit to reducing the global nuclear threat, and agree to influence others to share their views. The United States and Russia agree to act responsibly in all aspects of possession of nuclear weapons, fissile materials and associated knowledge, including security, safety, and elimination of proliferation-related trade and commerce, as required by the Nuclear Non-Proliferation Treaty (NPT) and other international agreements. A critical aspect of greater strategic stability requires both the United States and Russia to recognize that the dire consequences of nuclear conflict between them would be disproportionate to the scale of any plausible bilateral disputes they may have with each other. It should be recognized that both U.S. conceptual thinking on mutual assured stability as well as the U.S. dialogue with Russia must create more clarity on these issues.

Mutual Assured Nuclear Materiel Security: A portfolio of appropriate technologies and practices for securing all nuclear weapons and fissile materials in Russian territory – beyond the reach of terrorists or thieves – has been developed over two decades of U.S.-Russian cooperation under Nunn-Lugar Cooperative Threat Reduction (CTR) programs. This portfolio can be used in defining a “gold standard” in technologies and best practices for nuclear materiel security in each of our countries. The United States and Russia commit to defining this standard and to fully implementing the standard for all aspects of their nuclear enterprises. The two countries recognize that this standard is not static, but will change based on advances in technology, changes in the threat, and changes in operational context. They would also develop a transparency framework to provide mutual assurance of their adherence to the standard while not revealing sensitive information such as vulnerabilities. The United States and Russia would commit to cooperate in influencing and assisting other states in the area of nuclear materiel security to reach the level of this “gold standard”.

Clarity & Assurance

Effective Clarity: The United States and Russia commit to creating the ability for each country to see with clarity the events and actions in their territories (1) that give confidence that progress toward stability is being made and sustained, and (2) that would signal the appearance of nuclear weapons or any of its early indicators, anywhere not expected or declared, in each nation or its allies' territory. The means for such clarity include treaty monitoring, cooperative measures, and measures required to counter uncooperative actions such as denial and deception, and should include defined measures for effective sharing. The two nations will also consider the time factors that define acceptable warning time for action, such as the amount of time between the appearance of the signal and its detection.

Effective Assurance Measures: The United States and Russia each possess the capability to respond to protect their nation's interests in the case of surprise or other arising instabilities involving nuclear weapons. This capability includes actions of defense, dissuasion, and counter-actions. These assurance capabilities must be effective in assuring allies and partners as well as providing for each nation's assurance.

Beneficial Interdependence

Economic Cooperation: The United States and Russia join together around the interests, values and beliefs they share in the advantages of peaceful interaction in economic spheres. The United States and Russia recognize that interaction and interdependence in economic development and global commerce are to their mutual and individual advantage, and provide value to counterbalance the perceived benefits of military conflict, particularly nuclear conflict, to resolve arising security issues. The United States and Russia work together to improve transparency in economic trade and investment, rule of law, and ethical standards in business.

Public Health Cooperation: The United States and Russia collaborate on a full range of public health issues of mutual interest: stopping drug trafficking (particularly from Afghanistan to Russia), infectious disease prevention, promotion of healthy lifestyles and decreased drug abuse, affordable health care delivery, and

other areas as identified. The United States and Russia work together to improve cooperation in health, and other areas of importance to prosperity and quality of life. The creation of benefit to both countries in these areas also contributes to countering perceived value from armed conflict.

Mutual Assured Stability: Essential Components for Relations Beyond Russia

If creation of these essential components with Russia is successful, and progress towards mutual assured stability is achieved, moving beyond Russia will be even more challenging. This will require a considerable effort over possibly a very long time period. The most critical next step will be engagement with China on these matters. Though the essential components stated below are relevant in the case of China, the reader is referred to the ISAB study on “Maintaining U.S.-China Strategic Stability” for specific strategies and recommendations. Beyond and possibly in parallel with China, other nations must be engaged, including other P-5 nations, as well as other states possessing nuclear weapons and states aspiring to have nuclear weapons. It is important to recognize however, that extensive work may be required to address core security issues, and achieving the components stated below will not be sufficient in themselves to achieve mutual assured stability with other nations. Further development and tailoring of this list of essential components will be required for application to other nations and regions. The essential components below are offered only as a starting framework.

Cooperative Security

Mutual Responsibility: Individual countries join together around the values, norms, and motives that they share, committing to reducing the global nuclear threat, and agreeing to collaborate to create and expand influence on these matters to other nations. Further work and dialogue is required, particularly among the nuclear weapons states, to extend the conceptual thinking on mutual assured stability and to address lingering core security issues.

Mutual Assured Nuclear Materiel Security: Cooperating nations with nuclear weapons or fissile materials commit to secure all nuclear weapons and fissile materials on their territory to a “gold standard” in technologies and best practices – beyond the reach of terrorists or thieves. The standard will evolve based on threat

change, technology improvements, and changes in other circumstances surrounding the weapons or materials.

Clarity & Assurance

Effective Clarity: Nations cooperate to provide the ability for parties to see with clarity the events and actions in the world (1) that give confidence that progress toward stability is being made and sustained, and (2) that would signal the appearance or resurgence of nuclear weapons or any of its early indicators anywhere in the world. This includes clarity through transparency into operational endeavors to assure other cooperating nations that commitments actually have been fulfilled to secure all potential nuclear weapons and fissile materials to a “gold standard”. This includes treaty monitoring, cooperative measures, and measures to counter uncooperative actions such as denial and deception, and should include definitions and mechanisms of appropriate sharing.

Comprehensive Intelligence: Adequate intelligence and monitoring to avoid destabilizing factors such as the inability to detect breakout actions and threats, require a comprehensive and holistic approach to intelligence, specifically applying new/breakthrough technologies and including the role of social media and social networks for enhanced transparency. This also requires a comprehensive consideration of multilateral arrangements, i.e. broadly multilateral such as U.N. based agencies (e.g. IAEA) and regional multilateralism.

Mutual Assured Attribution: Related to achieving Effective Clarity and building on national nuclear forensics capabilities developed during the Cold War, but advanced by new technologies, cooperating nations work to assure detection and attribution of fissile materials or nuclear weapons found loose anywhere in the world, prior to or after a nuclear detonation. Potential rogue states or terrorist groups must be deterred from believing they could conduct attacks under a cloak of anonymity.

Effective Assurance Measures: When prevention through means such as effective clarity fails and surprise occurs, nations must have means of action, possibly through allies and partners and including defense, dissuasion, and counter-actions.

Beneficial Interdependence

Economic Cooperation: Nations join together around the values and belief they share in the advantages of peaceful interaction in economic, political, and diplomatic spheres. The cooperating nations work together to improve transparency in economic trade and investment, and ethical standards in business.

Public Health and Other Quality of Life Cooperation: Cooperating nations join together on a full range of public health and quality of life issues of mutual interest. The goal is the creation of benefit to countries that may counter perceived value from armed conflict.

Risks on the Pathway to Mutual Assured Stability

Essential components such as those listed above can guide our actions, and provide a framework for assessment of the steps on the pathway to threat reduction and mutual assured stability. However, at each step along the path, the *quality* of stability at that point in time should also be tested against possible de-stabilizing conditions that contribute to the risk along the journey, and if necessary, mitigating measures should be taken. Former Secretary of State Henry Kissinger and former National Security Advisor Brent Scowcroft have recently highlighted “key facts” requiring strategic analysis as nuclear weapons reductions take place³. Though the risk factors listed below have some similarity to the Kissinger/Scowcroft key facts, their recent article provides more insight into the nature of the risks to strategic stability and the reader is referred to that for additional perspective on risk and stability.

The ISAB suggests that the following key de-stabilizing factors must be periodically assessed, particularly as nuclear weapons stockpiles are reduced to very small sizes:

- inadequate intelligence, monitoring, and verification, and unacceptable delay in detection of breakout actions and early indicators of threatening action, as

³ OpEd in The Washington Post titled *Nuclear Weapon Reductions Must be Part of Strategic Analysis* by Henry A. Kissinger and Brent Scowcroft, published April 22, 2012

well as discernment of destabilizing motives, influences, and drivers, in leadership, societies and sub-national groups;

- ineffective defense against various weapons of mass destruction (WMD) delivery mechanism threats for ourselves and our allies;
- ineffectiveness of non-nuclear, advanced conventional forces to provide all aspects of the desired deterrence, including their survivability in the face of a surprise or shocking turn of events;
- nuclear forces, albeit progressively smaller in size, but not adequately sized and maintained, and with a force structure and posture not appropriately tailored for circumstances and uncertainty;
- inability to move strategic stability discussions beyond Russia to other key nations, including members of the P5 as well as other possessing or aspiring states;
- ineffective dissuasion, through either soft or hard measures, of opponents' acquisition choices regarding nuclear weapons, fissile materials, design information, and parts, as well as critical delivery system technology;
- unacceptably slow progress in establishing a new norm (i.e. that nuclear weapons are horrific and viewed by all as undesirable – similar to biological weapons) as tested against other examples of our ability to execute cross-cultural influence;
- inability to achieve effective inclusion of all nuclear weapons, specifically nonstrategic nuclear weapons as well as hedge/reserve weapons, in arms reduction agreements and associated monitoring and verification; and inability to execute multilateral agreements;
- insufficient security guarantees provided to countries to reduce their incentives for acquisition of nuclear weapons or other WMD; and
- ineffective assurance of our allies that we will maintain extended deterrence at every step of this process.

Tangible Steps Toward Mutual Assured Stability: U.S.-Russia

Guided by the essential components stated above, and mindful of the risks, near-term actions should be taken with Russia, before seeking to broaden mutual assured stability beyond Russia. Though steps between the United States and Russia are the first priority, these steps are not decoupled from the rest of the nations of the world, and each major step must be reviewed with regard to interpretation by and effect on other nations. If risk of instability with other nations is created by actions for greater stability with Russia, mitigating actions will be necessary.

The suggestions below must be conducted at the cabinet secretary level to achieve high-level commitments. Near-term actions are recommended in four categories:

Strategic dialogue and relations: Actions must be taken to co-create the framework for mutual assured stability with Russia. Candidate actions are:

- Conduct strategic stability talks with Russia to address matters of force structure, posture, and doctrine to avoid strategic surprise or misunderstanding;
- Conduct talks with Russia to develop a common understanding of the essential components necessary for mutual assured stability, and a plan for building these components and achieving this new relationship;
- Conduct a joint U.S.-Russia review of the requirements for national and multilateral missile defense in the coming years as missile technology continues to spread, with the goal of achieving a shared understanding of each nation's requirements for effective missile defense.

Cooperative Security: The statements and actions by the United States contribute to the context for dialogue and negotiation, and can promote or provoke actions by others. Our actions and statements should be adjusted to achieve the best environment to encourage progress on cooperation and clarity. Candidate actions are:

- Change U.S. doctrine and posture away from defining our nuclear posture based on perception of Russia as the primary threat, toward a doctrine of general deterrence, a posture in which attacks from any direction are discouraged, without singling out a particular adversary or enemy (reciprocal action required);
- Continue the Nuclear Security Summit process, with its focus on securing nuclear materials and preventing nuclear smuggling;

Cooperation and collaboration in areas of security are foundational for mutual assured stability. Candidate actions are listed here:

- Conduct talks for developing a mutual understanding of each other's motivation for the possession of nuclear weapons, including tactical and hedge/reserve weapons; engage Russia via the NATO-Russia Council, particularly on dialogue on the motivations for tactical nuclear forces;
- Work together with Russia on standardization of classification guidelines for nuclear-related information (to avoid conflict regarding sharing of data because of differences between U.S. and Russian classification guidelines);
- Work jointly on the definition of a “gold standard” in technologies and best practices for nuclear materiel security, based on CTR work, the creation of a process for continuous evolution of the standard based on changes in threat, technology improvement, and changes in other circumstances, and the development of associated transparency measures for mutual assurance; and
- Conduct talks to define appropriate and acceptable measures useful to influence other nations toward responsible nuclear materiel security, using an appropriately tailored standard.

Clarity & Assurance: Increased clarity and assurance can contribute substantially to a trustful relationship. Candidate actions include:

- Develop agreements on sharing early warning data with Russia and using satellites to jointly monitor ballistic missile launches (reciprocal action required);

- Develop agreement with Russia to give five-year advance notice on deployment of new nuclear systems (reciprocal action required);
- Declare fissile material stocks to each other; and
- Develop a U.S.-Russia understanding on how each would act or not act if a nuclear weapon was used anywhere else in the world.

Beneficial interdependence: Interdependence in humanitarian and economic, as well as national security realms contributes to the benefits of mutual assured stability. Along these lines, Gen (ret.) James Cartwright has suggested the concept of “entanglement” as having beneficial aspects. Candidate actions are:

- Increase economic interdependence and investment. Russia agrees to measures of transparency on trade and investment from abroad (reciprocal action); specific actions include:
 - Ending Jackson-Vanik restrictions;
 - Finalizing WTO membership;
- Extend collaboration with Russia to stop drug trafficking from and through Afghanistan; develop collaboration on promotion of healthy lifestyles;
- Develop further collaborations with Russia on infectious disease (e.g. TB) preventive health promotion;
- Establish cooperation in science & technology (S&T) for safe, secure oil and gas transport, oil and gas exploration, and recovery; and
- Establish science and technology (S&T) cooperation in nanotechnology, pharmaceutical research, and other areas of common interest.

Summary

A set of essential components that may contribute to mutual assured stability with Russia is offered in areas of cooperative security, clarity and assurance, motivated through substantial emphasis on collaboration for beneficial interdependence. The first priority should be engagement with Russia with tangible steps toward the

creation of these essential components. Achieving such a significant change in relationship with Russia will be a challenging undertaking and if it is found to not be feasible to create these components, it may call into question the feasibility of the end state. A set of essential components is offered for expanding to a broader group of nations. Though these essential components are not sufficient to ensure global mutual assured stability and address all nations' core security issues, they are offered as a starting point for dialogue, initially with the current nuclear weapons states as defined in the Nuclear Non-Proliferation Treaty, and progressing to other nations with nuclear weapons or fissile materials. The steps to mutual assured stability may be long, taking years or perhaps decades. At each step along the path, the progress should be rigorously tested against the completeness of the essential components and against the possible de-stabilizing risk factors. If risk of destabilization is detected, mitigating measures should be taken. This continued reassessment of progress will enhance the creation of lasting change. Recommendations for tangible first steps with Russia are presented. Though steps between the United States and Russia are the first priority, these steps are not decoupled from the rest of the nations of the world, and each major step must be reviewed with regard to interpretation by and effect on other nations. If risk of instability with other nations is created by actions for greater stability with Russia, mitigating actions will be necessary.

This report provides some initial thoughts on mutual assured stability and the Board believes they are worthy of consideration by the nation's leadership. However, there is much additional work required to explore areas that this study served to highlight. Particularly, an in-depth analysis of the relationship with Russia today, including the areas of continuing disagreement, would be valuable to this topic as well as international relations in general. As previously stated, this report is not a plan for achieving mutual assured stability, and much remains to be done to develop a plan to build these proposed components and successfully take the tangible steps recommended. It is important to commence the development of these plans and associated studies and analysis now to ensure that the nation is well prepared when opportune times arise for taking the next steps.

Appendix A – Summary of Recommendations

Recommendation 1. Conduct strategic stability talks with Russia to address matters of force structure, posture, and doctrine to avoid strategic surprise or misunderstanding.

Recommendation 2. Conduct talks with Russia to develop a common understanding of the essential components necessary for mutual assured stability, and a plan for building these components and achieving this new relationship.

Recommendation 3. Conduct a joint U.S.-Russia review of the requirements for national and multinational missile defense in the coming years as missile technology continues to spread, with the goal of achieving a shared understanding of each nation's requirements for effective missile defense.

Recommendation 4. Change U.S. doctrine and posture away from defining our nuclear posture based on perception of Russia as the primary threat, toward a doctrine of general deterrence, a posture in which attacks from any direction are discouraged without singling out a particular adversary or enemy (reciprocal action required).

Recommendation 5. Continue the Nuclear Security Summit process, with its focus on securing nuclear materials and preventing nuclear smuggling.

Recommendation 6. Conduct talks with Russia for developing a mutual understanding of each other's motivation for the possession of nuclear weapons, including tactical and hedge/reserve weapons; engage Russia via the NATO-Russia Council, particularly in dialogue on the motivations for tactical nuclear forces.

Recommendation 7. Work together with Russia on standardization of classification guidelines for nuclear-related information (to avoid conflict regarding sharing of data because of differences between U.S. and Russian classification guidelines).

Recommendation 8. Work jointly on the definition of a “gold standard” in technologies and best practices for nuclear materiel security, based on CTR work; the creation of a process for continuous evolution of the standard based on changes in threat, technology improvement, and changes in other circumstances; and the development of associated transparency measures for mutual assurance.

Recommendation 9. Conduct talks to define appropriate and acceptable measures useful to influence other nations toward responsible nuclear materiel security, using an appropriately tailored standard.

Recommendation 10. Develop agreements on sharing early warning data with Russia and using satellites to jointly monitor ballistic missile launches (reciprocal action required).

Recommendation 11. Develop agreement with Russia to give five-year advance notice on deployment of new nuclear systems (reciprocal action required).

Recommendation 12. Declare fissile material stocks to each other.

Recommendation 13. Develop a U.S.-Russia understanding on how each would act or not act if a nuclear weapon was used anywhere else in the world.

Recommendation 14. Increase U.S.-Russia economic interdependence and investment, including ending Jackson-Vanik restrictions; develop agreement with Russia for greater transparency on trade and investment from abroad (reciprocal action required).

Recommendation 15. Extend collaboration with Russia to stop drug trafficking from and through Afghanistan; develop collaboration on promotion of healthy lifestyles.

Recommendation 16. Develop further collaborations with Russia on infectious disease (e.g. TB) preventive health promotion.

Recommendation 17. Establish cooperation with Russia in science & technology (S&T) for safe, secure oil and gas transport, oil and gas exploration, and recovery.

Recommendation 18. Establish S&T cooperation with Russia in nanotechnology, pharmaceutical research, and other areas of common interest.

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Appendix B - Terms of Reference

UNDER SECRETARY OF STATE FOR
ARMS CONTROL AND INTERNATIONAL SECURITY
WASHINGTON

July 5, 2011

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

SUBJECT: Terms of Reference – ISAB Study on Strategic Deterrence and the
Path to a World of Mutual Assured Stability

The International Security Advisory Board (ISAB) is requested to undertake a study of how the United States could manage a transition to a world of mutual assured stability.

In a world characterized by mutual assured stability, increasingly interdependent states would have incentives to cooperate on political, military, and economic issues, reducing the need for adversarial approaches to managing security challenges. Such an international security environment would facilitate significant reductions in nuclear weapons and a corresponding relaxation of nuclear force postures – in effect moving beyond traditional concepts of deterrence. This transition would be gradual unfolding across a continuum from today's deterrence-based stability to a world less reliant on nuclear weapons and characterized by increased trust and transparency among major powers. Options for the sequencing and implementation of this transition constitute the core of this study.

As the United States and Russia continue to draw down the number of their nuclear weapons, maintaining an effective and credible strategic deterrent will remain an important objective for U.S. policy. The early stages of a transition to mutual assured stability, facilitated by continued reductions in nuclear weapons, would include reliance on traditional forms of deterrence in order to dissuade potential rivals from attempting nuclear buildups. However, achieving the goal of a world without nuclear weapons would require a transition away from these traditional concepts of nuclear deterrence and assurance.

It would be of great assistance if the ISAB could examine and assess:

- The possible components of mutual assured stability and what the U.S. would need to see happening to have the confidence to consider very low numbers and, eventually, agree to the elimination of nuclear weapons;
- The development of incentives to refrain from precipitous actions and pursue cooperative and non-military solutions to international problems, even in periods of tension;
- Strategies for how the United States could manage the transition away from strategic deterrence to mutual assured stability, which would be accompanied by reductions to very low numbers of nuclear weapons, and ultimately the complete elimination of nuclear weapons;
- Whether there is tension between maintaining an effective deterrent, the requirements of assurance, and further reductions of nuclear weapons;
- What stabilizing factors, if any, might replace classical deterrence in a world of mutual assured stability; and
- Possible near term U.S. policy, force structure, and posture initiatives that would maintain strategic stability, support deterrence, and improve the long term prospects for mutual assured stability.

During its conduct of the study, the ISAB, as it deems necessary, may expand upon the tasks listed above. I request that you complete the study in 240 days. Completed work should be submitted to the ISAB Executive Directorate no later than March 16, 2012.

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 Urena 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 or findings to the full ISAB for consideration in a formal meeting, prior to presenting the report or findings to the Department.



Ellen O. Tauscher

Appendix C - Members and Project Staff

Board Members

Dr. William Perry (Chairman)
Mr. Charles Curtis (Vice Chairman)

Dr. Graham Allison	Dr. David A. Kay
Dr. Michael R. Anastasio	Lt. Gen. Frank Klotz (USAF, Ret.)
Hon. Doug Bereuter	Gen. Montgomery C. Meigs (Ret, USA)
Dr. Bruce G. Blair	Rep. Harold Naughton
Mr. Joseph Cirincione	Lt. Gen. Brent Scowcroft (Ret, USAF)
Hon. Terry Everett	Mr. Walter Slocombe
Amb. Robert Gallucci	Dr. James Tegnalia
Amb. James Goodby	Mr. William H. Tobey
Amb. Robert E. Hunter	Dr. Ellen Williams
Dr. Shirley Ann Jackson	Dr. Joan B. Woodard
Dr. Raymond Jeanloz	

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Dr. Bruce G. Blair	Mr. William H. Tobey
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Appendix D - Individuals Consulted by the Study Group

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Dr. Peter Almquist	Analyst, INR/SPM, Department of State
Mr. Eric Arnett	Analyst, INR/SPM, Department of State

Briefing and Discussion on Mutual Assured Stability with Arms Control Interagency Policy Committee, March 8, 2012

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