U.S.-China Strategic Dialogue Phase VIII Report

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PROJECT ON ADVANCED SYSTEMS AND CONCEPTS FOR COUNTERING WEAPONS OF MASS DESTRUCTION



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The Naval Postgraduate School Center on Contemporary Conflict is the research wing of the Department of National Security Affairs (NSA) and specializes in the study of international relations, security policy, and regional studies. One of the CCC's programs is the Project on Advanced Systems and Concepts for Countering WMD (PASCC). PASCC operates as a program planning and implementation office, research center, and intellectual clearinghouse for the execution of analysis and future-oriented studies and dialogues for the Defense Threat Reduction Agency.

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PART 1: STRUCTURE AND BACKGROUND

The eighth annual session of the U.S.-China Strategic Dialogue on strategic nuclear issues was held in Oahu, Hawaii, from June 8 to 10, 2014. The dialogue is a Track 1.5 meeting; it is formally unofficial but includes a mix of government and academic participants. The dialogue is organized by the Naval Postgraduate School (NPS) and Pacific Forum CSIS (Center for Strategic and International Studies) and funded by the U.S. Defense Threat Reduction Agency's (DTRA) Project on Advanced Systems and Concepts for Countering WMD (PASCC) at NPS. For the third time, this meeting was also supported by a Chinese co-host, the China Arms Control and Disarmament Association (CACDA). This "non-governmental" association, with close ties to the Ministry of Foreign Affairs (MFA) and People's Liberation Army (PLA), helped improve the level and quality of participants and secure support for discussing certain topics.

The goal of this series of annual meetings has been to identify important misperceptions regarding each side's nuclear strategy and doctrine and highlight potential areas of cooperation or confidence building measures that might reduce such dangers. This year, 13 participants on the Chinese side—the largest delegation ever—included a mix of active and retired senior PLA officers, officials from the MFA and Ministry of National Defense (MND), experts from government-run civilian Chinese think tanks, and a scholar from a Chinese university. In comparison to previous years, the Chinese side's participation was boosted considerably by the inclusion of more senior participants with relevant military expertise. The U.S. side included observers from the State Department, the Joint Staff, PACOM, STRATCOM, National Defense University (NDU), Global Strike Command, DTRA, and participants from think tanks, such as Pacific Forum CSIS, and universities, such as the University of Pennsylvania. In total, there were more than 25 American participants.

One of the goals of this series of meetings is to create a community of regular participants who develop accumulated learning and the personal trust needed to facilitate a more open discussion. This effort met with much success this year in candid and substantive discussions that were not adversely affected by the then-tense tenor of the overall bilateral relationship.

The meeting was organized around four substantive panels, a set of breakout groups on confidence and security building measures (CSBMs), and a plenary session on CSBMs. The four panels examined "Common Challenges and the Evolving Nuclear Strategic Environment," "Developments in Nuclear Modernization and Strategic Postures," "Managing Crises and Avoiding Escalation," and "Evolving Views on Missile Defense." These topics as well as the proposed CSBMs were developed in close coordination with officials on both sides before the meeting and the dialogue's outcomes are routinely outbriefed within both governments.

The following pages examine the discussions and presentations with a focus on the narrative of Chinese perceptions and statements aired at the meeting. The report then proceeds to examine and evaluate the proposed CSBMs discussed in the breakout groups and plenary.

PART 2: NARRATIVE ANALYSIS

General Perceptions of the U.S.-China Relationship

The overall tenor of the meeting was less tense than expected. Given the ongoing confrontations in the South and East China Seas, Justice Department indictments of PLA officers for cyber activities, and antagonistic exchanges between defense officials at the recent Shangri-La Dialogue, the U.S. side expected a more confrontational Chinese approach and more boilerplate criticisms of American behavior. Instead, there was no mention of the "three obstacles" in bilateral military relations and little discussion of maritime disputes. The Chinese side emphasized the existence of a trust deficit between Beijing and Washington regarding uncertain intentions, but also repeatedly accepted the legitimacy of America's traditional security role in the region. For instance, one Chinese participant stated, "We don't oppose continued U.S. presence; we don't challenge primacy."

Chinese assessments of the U.S. "rebalance" to the Asia-Pacific were less critical than in past dialogues. Positively from a U.S. perspective, Chinese participants often saw the strategy as enhancing U.S. capabilities and influence in the region—a stated goal of the rebalance. Some participants criticized the rebalance as a source of continuing bilateral tension and encouraging provocations by U.S. allies. Yet, these criticisms were relatively muted and still combined with an acceptance of America's traditional security presence and an emphasis on building a cooperative relationship.

Overall, while trouble spots persist in the relationship, the Chinese side repeatedly emphasized cooperation, common interests, and the "new type of major country relations" (新型 大国关系) concept as a way to overcome the trust deficit. In part, the dialogue's "unofficial" status and a familiarity among the participants helped keep conversations from delving into unhelpful rhetoric or talking points. That said, Chinese participants also believed there was a limited chance that similar strategic nuclear discussions could occur at the Track 1 level.

China's Regional Relations and Threat Perceptions

North Korea: In a shift from relative optimism about the prospects for denuclearization in previous dialogues, Chinese participants emphasized that North Korean nuclear weapons were now a fact and denuclearization was unlikely. According to one Chinese participant, "North Korea is unshakeable in its determination to develop nuclear weapons" and has made progress in developing its arsenal. Another suggested that it would be "almost impossible to denuclearize the DPRK" and "Chinese and Americans will have to be practical on this point." Chinese participants viewed Kim Jong-Un as a young, unpredictable, and inexperienced leader. One expert stated, "we don't know where its young leader is leading the country." This expert further suggested that a fourth nuclear test was probable. Another Chinese participant suggested restarting the six-party talks, but unlike previous dialogues, even this expert did not seem particularly optimistic about the prospects for success; no other Chinese participant referred to the six-party talks. The Chinese emphasized that China, in concert with the United States, was

doing all it could to manage the North Korean problem, but there was a realization of limited effectiveness in these efforts.

Japan: Chinese participants expressed widespread fears about the future directions of Japanese national security policy, especially under the Abe administration. These concerns included potential constitutional revision or reinterpretation of collective self-defense, challenges to the post-World War II regional order, a loosening of weapons exports restrictions, and missile defense cooperation with the United States and others. Japan's nuclear weapons potential was especially concerning for the Chinese since they fear hidden Japanese stockpiles of weaponsgrade material and the country's ability to rapidly nuclearize. Chinese worries were focused much more on Japan as an independent actor than on problems raised by the U.S.-Japan alliance. Unlike in past engagements, the Chinese did not push for Washington to restrain or control Japanese foreign and defense policy, perhaps realizing that such an approach was not feasible.

<u>India</u>: The existence of Chinese concerns vis-à-vis India in the nuclear realm have long been dismissed by Chinese interlocutors in these dialogues. The pattern continued this year. According to one Chinese nuclear expert, "China knows for certain that nuclear deterrence works well between China and India."

<u>Taiwan</u>: In keeping with recent dialogues, Taiwan was barely mentioned by the Chinese, even when raised by Americans. In discussing the threats driving China's own missile defense system, a Chinese military scholar referred to threats from "other countries and neighbors in the region," indirectly referring to Taiwan. The only direct mention came in a presentation on missile defense by another Chinese scholar who questioned whether the PAVE PAWS radar system in Taiwan would enhance America's ability to observe the countermeasure deployment process of Chinese missiles during a conflict. If so, the participant argued that PAVE PAWS would improve America's capability to intercept Chinese intercontinental ballistic missiles (ICBMs) since U.S. shooters could distinguish early on between actual weapons and decoys. Relatedly, some Chinese suggested PAVE PAWS possessed more capability than Taiwan could make use of by itself.

Russia: Given recent developments, such as possible Intermediate-Range Nuclear Forces (INF) Treaty violations and events in Ukraine, American participants repeatedly pushed the Chinese side for its views on these developments and how they were affecting Sino-Russian relations. However, the Chinese emphatically denied that any of these developments were leading to an enhanced perception of the Russia threat or new challenges in the relationship. One Chinese expert suggested that relations were at their "best in history." Other Chinese participants argued that good political relations mitigated any concerns they might see from Russian missile and nuclear modernization. Russian INF Treaty violations were dismissed or not acknowledged. One expert suggested that China's concerns about these violations were "not as serious as some of my American friends would think." Another repeated the Russian view that because these capabilities were for test purposes and not operational, they did not represent a genuine violation. Another Chinese expert repeated a point made in earlier dialogues that extreme Russian assessments of China's nuclear capabilities are not genuine, but are made because Russia does not want to reduce its nuclear forces any further; similar points were made to explain away Russian demands for multilateral participation in arms control negotiations.

Chinese participants repeatedly raised the issue of closer Sino-Russian cooperation and the potential that U.S. behavior might drive the two countries closer together. At the broader level, a Chinese expert argued that America was making several strategic mistakes in its foreign policy, with one effect being the driving of China and Russia closer together. In the strategic nuclear context, the issue of Sino-Russian cooperation came up repeatedly in discussions of potential cooperation on BMD. In response to a question, a Chinese participant said that China and Russia did not share technology or more specific information on BMD systems. After some further discussion, however, the Chinese participant returned to this issue and suggested that the above statement "doesn't mean China and Russia won't or can't develop more cooperation on BMD."

Views of the Broader Nuclear Environment

The Chinese side characterized their assessment of the non-proliferation environment as unchanged over the last five years, but the discussion of recent developments in this realm seemed to reveal a more negative and pessimistic assessment. First, as mentioned earlier, North Korea poses a challenge with no easy solution. Second, the existing non-proliferation regimes do not seem capable of dealing with increased challenges. One Chinese expert characterized existing non-proliferation regimes, specifically the Non-Proliferation Treaty Review Conference (NPT RevCon) and Comprehensive Test Ban Treaty (CTBT), as "not powerful enough" to stop "ambitious actors" from developing nuclear weapons. Another Chinese participant added that the NPT had failed to achieve many of its declared objectives in the last NPT RevCon. Third, Chinese participants relayed mixed messages on Iran. While they noted the progress made by P5+1 negotiations, they also saw transparency as an incomplete solution and suggested long-term Iranian technological intentions were unchanged.

Views on the U.S. Nuclear Posture

A Chinese participant argued that unlike its stable relations with every other nuclear power, U.S.-China relations remained "bumpy" and issues and concerns persisted in the strategic nuclear relationship. Reflecting an understanding of developments in U.S. nuclear policy since the 2010 NPR, the expert recognized that the United States had reduced its reliance on nuclear weapons and was reducing its nuclear forces in line with New START; but the participant also questioned whether future momentum could be maintained. Unlike previous dialogues, increased U.S. funding for nuclear infrastructure maintenance and development was not specifically raised or criticized.

However, Chinese participants noted recent American arsenal modernization efforts that were a source of concern. One referred to: 1) conventional capabilities that may strike China's nuclear arsenal (including hypersonic and space-based weapons); 2) BMD capabilities (increased numbers of ground-based interceptors (GBIs)); and 3) modernization of the nuclear triad (which would provide "thinner but stronger legs"). Generally, prompt global strike and related systems were mentioned but not emphasized.

In terms of doctrinal changes, a Chinese participant observed that the June 2013 Nuclear Employment Guidance had reduced the prominence of launch under attack, but the expert also questioned whether DOD retained the ability to do so, noted this seeming contradiction, and asked for clarification on current U.S. thinking on launch under attack. This was the first time such concerns have been raised.

Chinese Strategic Forces

While the Chinese side often refers to the vague language in their Defense White Paper on a "lean and effective nuclear force" (精干有效的核力量), Chinese participants went into greater detail than in previous dialogues regarding the range of ongoing and potential developments in China's nuclear policy. One Chinese expert characterized these ongoing efforts as working towards: 1) better survivability; 2) improved early warning; 3) improved penetration to overcome BMD; and 4) robust BMD research and development. Potential moves to enhance survivability included concealment, dispersion, hardening, and mobility. Potential moves to enhance penetration included developing "more weapons pieces" and diversifying their means of delivery. A Chinese participant also referred to the need to enhance the precision of both conventional and nuclear missiles. This participant also defined deterrence credibility as requiring survivable forces that could penetrate and create "huge damage" that would be "unbearable."

In previous meetings, China's arsenal size has been discussed, but it did not feature prominently this year. Chinese participants noted that there was no set ceiling for China's nuclear weapons, but also that the size of its nuclear forces was reactive and related to the nuclear, conventional, and BMD capabilities of others. One Chinese participant was even more direct, arguing that requirements for force sizing depended on U.S. BMD capabilities. This expert suggested that if U.S. BMD capabilities could intercept 200 missiles, China would need to develop 300 missiles, and if the U.S. could intercept 500, China would need to develop 600. The requirement of 100 missiles that could penetrate was much higher than Chinese participants have raised in the past, but the emphasis on an interaction between the capabilities of others and China's arsenal size has been repeatedly emphasized.

In the limited discussion on targeting, Chinese participants suggested that Chinese counter-attacks would be counter-value. In part, counter-value appears more attractive because China currently lacks the capability to achieve a counter-force strike. One Chinese expert's suggestion that China needed to enhance its precision led to some questions about the potential for counter-force options. The participant emphasized that enhanced precision would be "for humanitarian purposes." It was unclear whether such precision would be consistent with the Chinese concept of key point counterstrikes (重点反击) or earlier pronouncements that Chinese second strikes needed to be "unbearable." Chinese SSBNs were also characterized as having imprecise missiles, which necessitated counter-value targeting.

Chinese SSBNs

Chinese participants discussed their SSBN program in much greater detail than before. They openly referred to the importance of their SSBNs for promoting stability and providing deterrence. A Chinese participant characterized SSBNs as more survivable than silo-based or even mobile ICBMs and suggested that a reliable SSBN force would serve to stabilize nuclear relations. Another indicated that China's current generation of SSBNs, the Jin class, are quite noisy and therefore might not be stabilizing, though this Chinese expert noted that future variants might be quieter and enhance stability. In addition, the participant commented that the launch azimuths of submarine launched ballistic missiles (SLBMs) could contribute to penetrability by complicating early warning: SLBMs originating from areas not covered by U.S. BMD radars would be inherently harder to detect and destroy, namely from locations in the Central and Southern Pacific.

In response to a question about what would constitute a reliable SSBN force, a Chinese expert responded that such a force would need to "get out to the great ocean through the few water channels" and possess constant, reliable communications. This idea of deploying out into deep water differs from concepts presented in earlier dialogues, such as the possibility of a bastioning strategy for its SSBNs. One Chinese participant also viewed SSBNs as a form of "strategic power projection," which was tied, if tenuously, to the need for a reliable second-strike capability. This participant also argued, as noted previously, that SLBMs possessed less accuracy and were therefore not counter-force weapons, although it was unclear what generation of missiles was being referred to.

The Chinese side also recognized that command and control (C2) for SSBNs would become an increasingly important issue to resolve. They acknowledged that their military and strategic community had not yet fleshed out the procedures or technology to provide robust and reliable C2. These extensive discussions on SSBNs in Hawaii showed that many key issues have not yet been decided but also revealed that these issues were under serious debate and consideration back in China.

Other Chinese Strategic Force Developments

For the first time in this series of meetings, the Chinese raised the importance of early warning and intelligence, surveillance, and reconnaissance (ISR) assets for the defense of China's strategic forces. Such capabilities were viewed as contributing to effective deterrence by allowing for "prompt" and "agile" counterattacks.

There was also somewhat more discussion about China's own BMD efforts. A Chinese expert referred to a need for robust research and development on BMD to enhance China's ability to deploy and develop a more comprehensive system should the need arise. This reference to possible deployment of a BMD system differed from past dialogues where the Chinese only emphasized the technical aspects of their BMD program. As referenced earlier, in discussions of the threats that drove China's BMD program, one Chinese participant referred to regional offensive missile developments, including an indirect reference to potential threats from Taiwan. Although still limited, there was more discussion of hypersonic weapons by the Chinese side.

One participant noted that hypersonic weapons could be a useful response to U.S. BMD capabilities.

Chinese Nuclear Doctrine

Reacting to the considerable controversy after China's 2012 Defense White Paper failed to include a reference to its no-first-use (NFU) policy, a Chinese participant promised that "it will certainly be in the next White Paper." Pronouncements of NFU were repeated at the dialogue, but this did not dominate or detract from substantive discussions.

Chinese participants emphasized that China did not have any new official policy documents about the evolution of its nuclear policy. Nonetheless, questions about the 2013 edition of the *Science of Strategy* (战略学), published by the Academy of Military Science (AMS), led to some new insights into ongoing nuclear policy discussions. An American participant asked for clarification about references in the nuclear section of this book regarding launch-on-warning posture and the possibility of controlling the scope and scale of nuclear counter-attacks. A Chinese expert responded that there were ongoing discussions about launch-on-warning, as reflected in the volume, but the participant's view was that China was unlikely to adopt such an approach. Separately, the participant more vehemently rebutted the notion of a concept of controlling nuclear war (also alluded to in the *Science of Strategy*). According to this participant, such a concept would contradict with the discussion of counter-value responses, which was prominent in earlier parts of that volume.

As in previous meetings, the U.S. side raised concerns over Chinese co-mingling/co-locating of conventional and nuclear weapons. Here, the concern was that attacks on conventional systems might inadvertently hit nuclear weapons, thus potentially escalating a conflict (or signaling to the Chinese that the United States was engaged in a counter-force strike more generally). One U.S. participant suggested that deliberate signaling that such a co-mingling had occurred could be useful as a means to deter attacks on conventional capabilities in the first place. The Chinese side flatly denied that co-mingling occurred, but the discussion was not specific with regard to the firing unit, brigade, or larger "base" levels ("base" could include a very large expanse of territory). The co-mingling of C2 for nuclear and conventional forces was also denied. In response to a question on China's nuclear and conventional weapons' lines of authority, a Chinese participant stated that, for nuclear forces, orders ran from the President/Central Military Commission (CMC) to the Second Artillery to the Firing Unit. For conventional forces, orders ran from the President/CMC to the General Staff Department to the Military Region then down to the Firing Unit.

The U.S. side repeatedly raised concerns about inadvertent escalation, especially as a result of such co-mingling. Chinese participants were surprised that such concerns were so prominent. In response, the Chinese strongly denied that they had any intentional desire for manipulating risk by pursuing the deterrent value of co-mingling. One Chinese referred to such a posture of co-mingling as "theory" and asked for the source of claims regarding ongoing Chinese co-location.

Views on U.S. Ballistic Missile Defense

American BMD capabilities remained a significant concern for China and were seen as a driver for a range of its modernization efforts. In particular, Chinese interlocutors pointed to U.S. THAAD and X-Band radar deployments, as well as an increase in the number of GBIs in Alaska, as evidence of the threat posed to its nuclear deterrent. The core issue for a range of Chinese participants was that integrated C2ISR networks involving forward-based systems, plus associated interceptors in theater, might greatly enhance U.S. national missile defense capabilities.

A Chinese expert argued that while the United States views its regional and national missile defense architectures separately, the Chinese view these systems as highly integrated. This participant also emphasized how regional BMD systems might undermine China's nuclear deterrent when viewed comprehensively. Hence, U.S. and allied BMD deployments in the region continue to fuel Chinese threat perceptions.

During the dialogue, several Chinese participants warned against the deployment of a THAAD system in South Korea. Chinese experts repeatedly denied that North Korean missile developments could reasonably explain the need for enhanced BMD capabilities and deployment of THAAD to South Korea. In addition, Chinese participants argued that deployments of regional BMD capabilities could challenge China's strategic deterrent. A suggestion by a U.S. participant that China observe THAAD radar installations to see that the equipment could not easily be retargeted toward China was rebuffed as insufficient to reassure China.

Some Chinese expressed concerns that regional-based radars and sensors could provide cueing for U.S. national BMD interceptors. In particular, these regional systems could assist in target discrimination against countermeasures after the warhead and decoys/countermeasures separated from the booster, but before they left the atmosphere. Regional sensors could distinguish payload component weights and thus identify decoys. In addition, the Chinese feared a separate role for forward-deployed SM-3 block IIAs on Aegis ships that could intercept Chinese ICBMs and SLBMs, providing enhanced shoot-look-shoot opportunities. Despite all of the above concerns, multiple Chinese participants saw BMD as politically unstoppable in the United States, in part due to strong congressional support. Chinese participants repeated their claims that they did not consider BMD developments to be a reasonable strategic response to North Korean and Iranian threats.

Toward the end of the dialogue, one Chinese expert made outlier comments expressing confidence in China's ability to deal with U.S. BMD. Referencing conversations with Russian experts, the participant suggested that Russia and China could destroy GPS satellites, which would supposedly damage American BMD capabilities. These abilities included counter-space activities that other Chinese participants recognized to be profoundly escalatory. This Chinese expert also indicated that China could negate the BMD threat by attacking radar systems in South Korea and Japan. Other tools to defeat BMD, such as countermeasures, were discussed but no details were provided. In general, the Chinese side has started to discuss increasing penetrability through a variety of measures including technical countermeasures, decoys, and "increased weapons pieces." One participant, rather awkwardly, also made the point that U.S. or

allied missile defense intercepts could expand and/or escalate a conflict beyond a previously bilateral engagement (likely meaning that U.S. involvement in a Sino-Japanese conflict through use of BMD systems would expand the war to include the United States).

U.S.-China Crisis Stability and Management

One of the main features at this year's dialogue was a panel on "Managing Crises and Avoiding Escalation." A Chinese expert stated that "crisis escalation has gotten greater attention by the Chinese government," and crisis management has been studied by experts in the PLA. The Chinese side views crises as dangerous affairs, not opportunities. Contrary to views by some on the U.S. side that China manufactures and manipulates crises to its advantage, the Chinese side expressed concerns about the U.S. creating, manipulating, and benefitting from crises. One Chinese participant also admitted that China's government faced decision-making challenges in crises, implying that it suffered from convoluted decision-making processes. Consequently, this participant concluded that China was unable to "control" crises.

A Chinese expert argued that misperception and miscalculation were two main sources of danger in crises. This participant defined misperception to include incomplete information and bounded rationality. Areas of potential miscalculation included: 1) strategic capabilities; 2) strategic intentions; and 3) strategic principles and operational roles, which included cross-domain and other issue sets. Chinese participants also cited ambiguous communications and the potential for third parties to initiate a crisis as other primary dangers.

In discussions of how both sides might behave in a crisis, one Chinese participant cited a range of potential "anti-coercion operations" that China could take. These were explicitly drawn from the *Science of Second Artillery Campaigns* (第二炮兵战役学) and included "signaling resolve via public media; raising alert status of nuclear forces; demonstrating nuclear capabilities; troops maneuvering and exercising; missile flight test; close-in/fly-over test; declaring nuclear targeting point." American participants suggested that such steps could be viewed as provocative and potentially lead to inadvertent escalation, although Chinese participants rejected any notion that these steps were escalatory.

The panel also included discussions on how to increase crisis stability. One Chinese participant proposed several potential "solutions" to reduce the risks of inadvertent nuclear escalation. One potential solution, which would address American concerns, would include separating nuclear and conventional weapons; but the participant noted that this would undermine survivability. The participant also proposed modifying China's NFU policy to consider conventional attacks on nuclear weapons as nuclear attacks. For the participant this was a "logical solution" to the risks of inadvertent escalation. This expert also proposed several steps the United States might take to reduce the risks of inadvertent escalation, such as declaring antisubmarine warfare (ASW) free zones, unilateral restraints on BMD and prompt global strike (PGS), and the acknowledgment of mutual vulnerability. One Chinese participant suggested that increased economic interdependence would enhance crisis stability and another participant argued that quiet, backchannel diplomacy (in line with Brent Scowcroft's back channel diplomacy in previous Sino-American crises) could help stabilize or mitigate a crisis. In the past, both sides have discussed developing a list of signals one might send in a crisis to enhance

familiarity on both sides. Such a project may become of increasing importance in the future given the discussions at this year's meeting.

PART 3: CONFIDENCE AND SECURITY-BUILDING MEASURES

This year, participants and observers at the dialogue were split into three breakout groups to discuss CSBMs proposed by participants from both sides during previous sessions of the dialogue. The groups discussed and evaluated three specific measures, with the aim of making recommendations as to which CSBMs could be effectively explored at the official Track 1 level. The discussion for each CSBM was organized around the objective, importance, pros and cons from each side, alternative measures, and future steps for implementation. These CSBMs were divided into declaratory steps (such as a joint statement on strategic stability) and concrete programs (such as reciprocal visits to BMD sites or tests). The CSBMs were mostly mutual and cooperative steps. Unilateral assurances are certainly worthy of further discussion, but these have the added challenge of determining appropriate reciprocity. The following pages examine the discussions on each CSBM.

Three common themes emerged in these discussions. First, for the joint statements on strategic stability, both sides acknowledged a potential incompatibility between such statements and the nature of the bilateral relationship. They might be crassly viewed as "ground rules for major Sino-American war." Experts from both sides noted that declarations on how each side would behave during a military crisis or war, even if meant to be reassuring, are inconsistent with the ongoing emphasis by both governments to develop a positive and cooperative relationship (both through the Sunnylands summit and the "new model of major power relations"). While this need not preclude further discussion, as described below, it may require adroit casting to ensure such belligerent overtones are avoided.

Second, the more promising concrete CSBMs seem likely to be more one-sided and include more steps by the U.S. side. For example, any mock inspection, notifications of BMD/long-range strike system tests, or exchanges on verification procedures that are led by the U.S. may have the appearance of being unbalanced and not reciprocal. It should be noted that such measures, even though they require more steps from the U.S. side, also provide benefits for the United States. First and foremost, they facilitate engagement with precisely the right sort of operationally connected actors the United States has struggled to engage with. Second, some of the communities in the Chinese system (such as the Second Artillery Arms Control Department) would likely take a more prominent role within China because of such engagements, which would be a positive outcome. Finally, as has been shown in a range of exchanges and through some Chinese publications on arms control, the understanding of such issues is relatively thin in China. Deepening that understanding serves American interests.

Finally, Chinese consideration of these widely disparate CSBMs showed how the NFU declaratory policy constrains Chinese strategic thinking. Even steps that might be regarded as tying U.S. hands were viewed primarily through the lens of their potential to undermine or raise questions about China's NFU. Separately, concerns were raised several times on whether bilateral work by the United States and China via certain CSBMs might undermine multilateral processes.

Measure 1: Development of a "Joint Statement on Strategic Stability"

The above statement would be designed to seek a mutual understanding of the concept and identify guidelines for both sides to indicate which actions are seen as harmful or helpful for the maintenance of strategic stability. Both sides agreed that this type of effort could help reduce miscalculations and clarify a currently murky concept. Nonetheless, experts questioned the utility of such an exercise because it faced challenging conceptual and definitional issues. In particular, the Chinese side raised concerns over the complexity of cross-domain interactions and questioned whether the time was ripe for such a conversation. In part, the U.S. side agreed, owing to the low likelihood that it would accept mutual vulnerability with China anytime soon.

Although there was agreement on the need to explore and define strategic stability, participants also agreed that it was too early to discuss these issues at the Track 1 level. Thus, a semi-official Track 2 or 1.5 effort to explore definitions, address each other's concerns on how to maintain strategic stability, and identify potential language for official consideration seemed like the most productive next step.

Measure 2: Bilateral Technical Exchanges on Verification Technology and Procedures

Primarily, technical exchanges on verification were seen as a potential method to improve Chinese understanding on arms control processes and reestablish some level of lab-to-lab cooperation. The Chinese side raised some concerns about such measures. One expert doubted China was ready to entertain the idea and recommended further consultations at the Track 2 level. Furthermore, another Chinese participant indicated that China's lab community still viewed engagements with the United States negatively given past problems, and possessed an inferiority complex that would complicate cooperative efforts moving forward. However, when the discussion focused on "procedures" rather than "technologies" there was a greater degree of interest. This mixed Chinese response to such initiatives was in contrast to more positive responses during a breakout group on verification at the November 2013 Beijing meeting. During the meetings in Beijing, experts from Chinese laboratories (such as CAEP) and PLA officers were interested in deeper discussion of verification as a useful avenue for bilateral cooperation and as a learning experience for China. An American expert also noted that in his meetings with Chinese experts over the past several years, they had seemed more supportive of technical exchanges on verification than expressed during this year's breakout group in Hawaii.

By contrast, the U.S. side viewed potential exchanges in a very positive light. These efforts could strengthen cooperation in line with leadership statements made at the Nuclear Security Summit, renew long-closed channels of technical cooperation, and lay the groundwork for multilateral arms control. Some American participants, however, questioned how these exchanges would directly address issues of strategic stability and areas of potential concern such as missile defense and crisis escalation. Although this CSBM discussion suggested that it might be too early to discuss these issues in a Track 1 context, further exchanges on verification should

occur to include discussions between technical experts on both sides, as well as an effort to help more general security experts understand the utility of verification.

Measure 3: Joint Studies on Capabilities and Threat of DPRK Ballistic Missiles

Strictly bilateral, private discussions on the threat posed by North Korean missiles were viewed by many on both sides as a way to monitor nonproliferation issues on the Korean Peninsula, develop shared understandings, and reassure China about the drivers of U.S. BMD. In particular, one Chinese participant showed an appreciation for the utility of such a measure. Impediments exist, however. Other Chinese participants voiced concern over a study being seen as cooperating with the United States against North Korea. One American expert believed joint studies "could lead to increased misunderstandings" and would not resolve China's principal concerns. In this vein, a flawed joint study on Iran by the East-West Institute was raised as a useful failure to learn from. Some concerns about the challenges in fully explaining U.S. threat perceptions in the context of classification restrictions were also raised.

Measure 4: Joint Statement on Escalation that both Countries Declare They:

- a. Acknowledge that conventional attacks (to include space and cyber) on components of their nuclear systems could provide justification for nuclear retaliation,
- b. Understand the escalation danger of conventional attacks on all components of the other's nuclear retaliatory systems, and
- c. Thus intend to refrain from conducting such attacks, based on their mutual understanding of the potential consequences.

This language was originally proposed by an American participant during the November 2013 Beijing meeting—though there was limited discussion of it during that meeting. During the breakout group discussions in Hawaii this time, each side suggested changes in the CSBM's language, although they also recognized that this measure would address sources of concern for both sides. There were some concerns about ambiguity in language, but the strongest opposition was against any pledge to limit attacks and behavior. In addition to a general reluctance to agree on any limitation on freedom of action, American participants suggested that this language could encourage Chinese co-mingling and, therefore, lead to greater instability and risks of crisis escalation. Chinese participants also worried that this measure could be seen as violating China's NFU policy and legitimating nuclear responses to conventional attacks. Both sides further raised questions regarding the definitions of "conventional attack" and "components" of nuclear systems. Moreover, the timing for such a measure did not seem appropriate, as pledges about how to fight a conventional war seem at odds with the focus in the bilateral relationship on deepening cooperation and avoiding crisis and conflict.

Although there were some concerns about this measure, especially the pledge, participants from both sides recognized that their countries had questions over potential

ambiguity and escalation issues that needed to be discussed and addressed to enhance strategic stability. The participants proposed an amended consensus measure that included agreement that both sides "acknowledge that they understand the escalation risk of conventional attacks on the other's nuclear systems." To address some of the definitional ambiguities in the original measure, they also proposed that both sides should engage in further discussions on what each side values as vital strategic assets. Future discussions on definitions of "vital strategic assets" or "components of nuclear systems" would likely be valuable at the Track 1.5 level.

Measure 5: Chinese Participation in Mock Inspections under New START or other Arms Control Treaty Protocols

In previous dialogues, Chinese participants have asked about the feasibility of learning more about ongoing arms control processes, such as observing U.S.-Russian negotiations, receiving detailed briefings, or observing real inspections. American participants have responded with the possibility of Chinese participation in mock inspections. Such a bilateral action would be less sensitive and not require Russian approval, but would build confidence. Many on the U.S. side saw this measure as an "easy win," especially since no Chinese participants in the breakout group raised objections. Both sides viewed it as a CSBM that would be a "positive learning exercise for potential (Chinese) involvement in future arms control" and more generally provide useful insights into the inspections process for China. A Chinese participant labeled the CSBM a "good kind of preparation for China." Some Americans questioned how Russia would respond to this measure and suggested that the U.S.-Russia relationship would likely need to be managed to fully implement this CSBM. The general consensus was that discussing such a measure at the official Track 1 level would be useful and productive.

Measure 6: Reciprocal Visits to BMD Sites

There was widespread agreement on both sides that such a proposal would not be technically or politically feasible. Visits would likely not be reassuring to the Chinese without sharing sensitive technical data, and even then China might not trust the information or observed tests. Furthermore, the United States would find it very difficult to share sensitive information and bring China to BMD sites, given U.S. political, legal, and operational restrictions. The Chinese participants were reluctant to admit China even possessed BMD sites to visit and questioned how reciprocity could ever be attained.

Measure 7: Three Pledges of No First Attacks in Nuclear, Space, and Cyber

This measure would rely on linked NFU pledges meant to enhance stability at the strategic level by providing reassurance in three offense-dominant domains where each side is vulnerable to the other. The Chinese observed that the pledges would likely enhance predictability and reduce misperception. Although these pledges could limit the potential for conflict and unintended escalation in multiple strategic domains, from the U.S. perspective, they would also challenge existing extended deterrence commitments. Moreover, participants questioned how such pledges would be credible, noting that they would likely become irrelevant

in a conflict. Similar to the concerns of other declaratory pledges, both sides expressed concern about how to clearly define "attacks" in a mutually satisfying way; these challenges would be greatest in the cyber domain.

Smaller steps were suggested as possible alternatives to help build towards a broader pledge. Some suggestions included cooperative studies on the costs of space and cyber conflicts and Track 2 exercises to clearly define an attack and discuss the types of attacks that would be most destabilizing. The main outcome of the discussion was the sense that both sides needed further dialogue to flesh out definitions of what constituted an attack. In addition, pledges would only possess value if both sides could trust the other to follow through. The current state of the bilateral relationship does not imply trust levels have yet reached that point.

Measure 8: Reciprocal Visits to Nuclear Test Sites

This CSBM would involve reciprocal visits by U.S. and Chinese scientists to ensure CTBT compliance, a treaty that both countries have signed but not yet ratified. Success would demonstrate an ability to cooperate on an official level and move beyond the Cox Commission. Success would also be helpful in reducing some limited suspicions regarding CTBT compliance. Hurdles exist, though, especially on the U.S. side, where participants voiced concerns about the lab-to-lab nature of the measure and consequent congressional opposition. Equivalent access was also a concern for both sides and Chinese participants worried that bilateral work in this area might undercut the CTBT.

Overall, most participants wanted to identify methods to restart lab-to-lab exchanges, whether they be related to CTBT, non-proliferation, or verification. If duplication of past lab-to-lab cooperation proves impossible, they proposed other, work-around alternatives such as scientific and policy expert exchanges outside the lab umbrella but with its same authoritative character. Yet, if CTBT cheating is not a serious concern and current verification measures seem effective, the CTBT route for renewed lab-to-lab cooperation looks dead on arrival due to the political capital required to advance it.

Measure 9: Reciprocal Notifications of BMD and Conventional Prompt Global Strike (CPGS) Test Launches

Launch notifications could serve to reduce U.S. and Chinese misunderstandings regarding the capabilities and intentions of each other's BMD and precision strike systems. Notifications would involve alerts to one another prior to test launches. Post-launch notifications were also discussed as an alternative. Understandably, U.S. and Chinese participants worried that pre-test notification could help disclose sensitive capabilities, particularly on Chinese systems given superior U.S. collection assets. Nonetheless, Chinese interlocutors also indicated that this measure would allow them greater access to U.S. research and development than they otherwise could collect.

From the American perspective, this measure represented an important step toward further Chinese transparency. Such a proposal may also fit into the advance notification

framework outlined at the Xi-Obama Sunnylands summit. Consequently, the breakout group suggested that a working group might be created to further investigate the idea. This group would need to decide what types of activities should be included in an agreement and what channels and actors would be best suited to its implementation.

PART 4: MEETING AGENDA

Agenda

June 9

0815-0845 Welcome Remarks: Outlining Common Strategic Interests

0845-1015 Common Challenges and the Evolving Nuclear Strategic Environment

What are the main strategic issues on which the U.S. and China share common interests and face common challenges (with "strategic" centering on nuclear issues, but also extending beyond)? What are American and Chinese perceptions of recent developments in the regional and global strategic environment? What role do strategic nuclear issues play in the "new type of great power relations" framework? What are the chances for further nuclear arms reductions and what role could both sides play in improving these prospects?

1015-1030 Break

1030-1230 Developments in Nuclear Modernization and Strategic Postures

What are the major developments in each side's nuclear capabilities and strategic posture over the last five years? What continuities and changes do recent government and military reports (such as the QDR, Chinese *Defense White Paper* and 2013 edition of 战略学/Science of Strategy) contain on each side's nuclear policy? What concerns and questions does each side have about the other's nuclear posture and ongoing modernization? How does each side plan to incorporate non-nuclear strategic weapons, such as conventional hypersonic missiles, into their strategic posture? How does each side view SSBNs as serving strategic stability?

1230-1400 Lunch, Ocean 2 Ballroom

1400-1600 Managing Crises and Avoiding Escalation

If a serious crisis erupts, what factors in the U.S.-China context might challenge/undermine stability and increase the risk of escalation? How might the asymmetry of conventional and nuclear capabilities affect the likelihood of escalation? Are there actions that either side might take (especially in the nuclear domain) that could inadvertently make the other side fearful and increase the chances of strategic escalation? Are there aspects of both sides' ongoing modernizations, both land and sea based, that might have a (positive or negative) effect on crisis stability? What actions can both sides take to prevent and limit escalation in a crisis?

June 10

0830-1000 Evolving Views on Missile Defense

What effect does each side believe its BMD will have on strategic stability? What does each side view the main drivers for and recent changes in America's BMD system? Does the deployment of BMD systems signal anything about broader intentions? How much of a challenge do current or anticipated BMD capabilities pose for China's strategic deterrence? Which current or future systems would pose the strongest threat to China's deterrent capability? What actions could either side take to address the other's concerns over BMD? What future developments are likely to lead each side to improve BMD capabilities?

1000-1015 Break

1015-1215 Breakout Sessions: Confidence and Security Building Measures

Matsonia Room, Mariposa Room, and Ocean 1 Ballroom

1215-1400 Lunch, Ocean 1 Ballroom Pre-function Lanai

1400-1530 Plenary Session: Confidence and Security Building Measures

In the plenary session, each breakout group will present the key points of agreement, disagreement, and new questions that emerged in their group's discussion of specific CSBMs. We hope to be able to make recommendations to our governments on the feasibility, importance, and order of priority for these CSBMs.

1530-1600 Implications and Ways Forward