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**Track 1.5/2 Security Dialogues with China:
Nuclear Lessons Learned**

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Michael O. Wheeler

Executive Summary

Track 2 United States-China security dialogues are unofficial meetings between Americans and their Chinese counterparts to discuss various issues relating to national security. When officials (e.g., foreign service and military officers, government policy officials and staff) attend the meetings in an *unofficial* capacity, the meetings are called Track 1.5. Both types of meetings are distinguished from official Track 1 dialogues.

This paper places in context and describes the history and content of Track 1.5/2 meetings with the Chinese and assesses the value of such dialogues for improving American understanding of China's nuclear weapons policy, doctrine, force posture, readiness, and future directions. The paper gives special attention to the series of Track 1.5/2 meetings held in Beijing and Hawaii since the early 2000s, sponsored by the Department of Defense (specifically, by the Defense Threat Reduction Agency).

The primary conclusion is that the value of such talks develops only over time with continuous engagement. Their contribution to increasing American understanding of China's nuclear intentions and activities is modest and slow, accumulating over time. At the same time, however, the Track 1.5/2 talks serve other purposes; for example, producing common lexicons, allowing each side to explain its anxieties about the other's policies and activities, identifying and trying to mitigate misperceptions, and keeping contacts moving in unofficial channels when official channels are frozen. The talks can help train a future generation of American officials and analysts and help the current generation assess the twists and turns in the Chinese debates on nuclear strategy and doctrine (a debate which is far less open than in the United States). They thus are worth continuing.

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1. Introduction

This paper describes an unofficial channel for talks between the United States and China known as *Track 1.5/2* and assesses the value of such dialogues for improving U.S. understanding of the motivations, roles and missions, doctrine, strategy, posture, readiness, and/or future directions of China's nuclear forces. The analysis in this paper has been done in support of the congressionally-mandated Assessment of the Nuclear Weapons Program of the People's Republic of China conducted by the Institute for Defense Analyses (IDA).¹ This paper does not purport to give a comprehensive view of China's nuclear weapons activities or intentions, but instead focuses on the narrow question of what the United States can expect to learn about those matters from Track 1.5/2 talks with the Chinese.

A. Distinguishing the Tracks from One Another

Track 1 meetings are official encounters between American officials and/or military officers and their Chinese counterparts.² They may be formal diplomatic discussions, military-to-military exchanges, or meetings held in more informal venues. Track 1 meetings may be publicly announced, but also can be unpublicized, backchannel activities such as the secret missions of then Secretary of State Henry A. Kissinger to Beijing in the early 1970s to prepare for President Richard M. Nixon's historic first trip to China.³

Track 2 dialogues normally are considered to be ones that do not involve officials (in any capacity), although if only a few officials are present in an unofficial capacity, the meetings sometimes still are called Track 2. Academic institutions, non-profit organizations, and similar organizations often sponsor and populate Track 2. Track 2 talks also frequently involve senior retired officials.

Track 1.5 dialogues are ones in which serving officials and/or active duty military officers are part of one or both delegations. The serving officials are participating in an

¹ See section 1045(b) of the National Defense Authorization Act for Fiscal Year 2013.

² In translating Chinese names into English, this paper follows the convention of using the family name first and given name second. For instance, when General Yao Yunzhu is mentioned, Yao is the family name.

³ See Henry Kissinger, *White House Years* (Boston: Little, Brown and Company, 1979).

unofficial capacity. The Beijing and Hawaii dialogues that the Defense Threat Reduction Agency (DTRA) has funded since 2004 initially were described as Track 2 with only a few officials in attendance, but now are more appropriately thought of as Track 1.5 as the number of officials has expanded. There is no hard-and-fast rule for distinguishing Track 1.5 from Track 2.

B. The Value of Track 1.5/2 Talks

This paper focuses on a narrow question of what the United States can learn from Track 1.5/2 dialogues about Chinese nuclear activities and intentions. One basic lesson that emerges from a review of previous security Track 1.5/2 talks with China is that their contributions to improving understanding of nuclear issues develops over time. The Chinese are expert at avoiding answering questions they do not want to answer and reluctant to send their most knowledgeable and connected strategists to such meetings.⁴ What American participants take away from Track 1.5/2 talks is cumulative, developed over a series of meetings rather than in any single encounter.

While the value of United States-Chinese Track 1.5/2 discussions on security issues develop only with time and engagement, they are constructive endeavors that should be championed and continued with increased attention. Track 1.5/2 meetings with the Chinese serve many purposes, one of which is to refine understanding over time of China's nuclear forces and ambitions. They also produce common lexicons, allow each side to explain its anxieties about the other's positions and behavior, identify and attempt to mitigate misperceptions, keep talks going on sensitive subjects in unofficial channels when they are frozen at the official level, provide a venue to float trial balloons and seek ways to build confidence, and provide useful experience for future generations of analysts and officials.

They also may foster relations (and perhaps even a degree of trust) among participants who return to Track 1.5/2 meetings, although maintaining long-term and continuing professional relations with one's foreign counterparts while remaining compliant with counterintelligence and export control rules and regulations can be difficult for participants on both sides.

Track 1.5/2 can help American analysts assess the twists and turns in the Chinese debates on nuclear strategy and doctrine that are reflected in China's open and gray

⁴ American participants have commented that the sorts of nuclear issues the Chinese shy away from include anything operational, anything to do with when they might sit down with the United States at an arms control negotiating table, and the conceptual role of missile defense on their side, to name a few.

literature—debates that take place in a far less open society than America.⁵ However, the expectation should be that much of what the United States seeks when it challenges China to be more transparent about nuclear matters is unlikely to be resolved through the Track 1.5/2 process, nor will gaps in knowledge be closed where China wishes to conceal its nuclear activities or intentions. This also has been the American experience with Track 1.5/2 discussions with Russia (former the Soviet Union), which have a much longer lineage than the more recent Track 1.5/2 discussions with China, and which are supplemented by decades of seeking to understand Russian nuclear activities and intentions through formal arms talks and through the post-Cold War mechanisms for Russia-North Atlantic Treaty Organization (NATO) relations.

⁵ Open source literature is generally available to the public. Gray literature is unclassified but not readily available because “few copies are produced, existence of the materials is largely unknown, or access to information is constrained.” Amy Sands, “Integrating Open Sources into Transnational Threat Assessments,” in *Transforming U.S. Intelligence*, eds. Jennifer E. Sims and Burton Gerber (Washington, DC: Georgetown University Press, 2005), 66.

2. Background

This chapter describes the origins of Track 1.5/2 talks, how they blossomed in the Asia-Pacific region from the 1990s onward, other venues for holding informal discussions with the Chinese, and how the Chinese approach such talks.

A. The Burgeoning of Talks in the Asia-Pacific Region

Asia-Pacific Track 1.5/2 talks are a relatively recent phenomenon that has blossomed since the end of the Cold War. According to Desmond Ball and his colleagues, “[a]t the start of the 1990s, there were almost no second track processes engaged in discussions of regional security issues” in the Asia-Pacific region.⁶ Such meetings now address a number of security issues, most of which are non-nuclear. They are convened by many organizations with multiple agendas and purposes. They often are episodic and poorly funded. They may not record their proceedings in ways accessible to interested parties, although many of the more important security discussions addressed in this paper do result in formal publications.

Although there have been sporadic attempts to keep a comprehensive record of the security Track 1.5/2s, they are not coordinated or tracked regularly by any entity within or outside of the U.S. government.⁷ Americans who have been involved in the process observe that one of the major shortcomings is lack of follow-up from one round to another, either in building on past discussions or converting even modest ideas into government action.⁸

American participants suspect that there is a higher degree of tracking and coordination in Beijing, if for no other reason than China’s long tradition of assigning

⁶ Desmond Ball, Anthony Milner, and Brendan Taylor, “Track 2 Security Dialogue in the Asia-Pacific: Reflections and Future Directions,” *Asian Security* 2, no. 3 (January 2007): 176.

⁷ This was one conclusion of a workshop on Track 1.5/2 diplomacy, sponsored by DTRA and held at the U.S. Air Force Academy in the summer of 2008. The workshop brought together a number of experts on Track 1.5/2 security talks. Many of them never had met one another before the workshop.

⁸ E-mail communications with the author by Ambassador Linton Brooks (December 2, 2013) and Dr. Christopher P. Twomey (February 8, 2014).

“barbarian handlers” to intermediate between American experts and Chinese officials.⁹ According to American participants in the United States-China Track 1.5/2s, Chinese interlocutors also have said that they hold regular coordination sessions prior to attending the meetings. Several Chinese organizations specialize in serving as intermediaries between Chinese officials and their Western interlocutors. The most important are the China Arms Control and Disarmament Association (CACDA) and the China Foundation for International Strategic Studies (CFIIS), which are discussed in more detail later in the paper.

There are some American non-governmental organizations (NGO) and university institutes and centers that, due to their specialized nature and network of contacts, have fairly broad knowledge of Track 1.5/2 talks taking place in the Asia-Pacific region. However, even their knowledge may be incomplete. Institutes in other countries (e.g., the Foundation pour la Recherche Stratégique in France) do research on Chinese security issues and interact informally with Chinese experts, but this type of foreign-sponsored meeting with the Chinese often is off the American radar screen.

In 2008, which was the last year that the now-defunct Dialogue and Research Monitor (DRM) surveyed Asia-Pacific Track 2s, it found that there were 269 separate Track 2s active in the region that year. The meetings addressed a wide variety of topics—security, economic, environmental, disaster relief, human rights, and others.¹⁰

Track 1.5/2s have become a ubiquitous and seemingly permanent feature of the Asian-Pacific security environment since the end of the Cold War—an environment that also has seen the emergence of a number of important Track 1 security forums such as the Association of Southeast Asian (ASEAN) Regional Forum (ARF).

B. Other Public Venues for Learning about China’s Nuclear Activities

In the 1980s, following normalization of United States-Chinese relations, Chinese nuclear scientists began coming to the United States to attend scientific meetings. In 1991, American scientists from the American national nuclear laboratories first were invited to visit China’s nuclear weapons facilities,¹¹ and from 1994 to 1998 there were

⁹ For an interesting discussion of the origins of the Chinese worldview on “barbarians” and how to deal with them, see Henry Kissinger, *On China* (New York, NY: The Penguin Press, 2011), 16–22.

¹⁰ Ball, Miller, and Taylor, “Track 2 Security Dialogue in the Asia Pacific Region and Future Directions,” 177.

¹¹ The inaugural visit to China was made by Danny B. Stillman, a physicist who then headed the Los Alamos Technical Intelligence Division, and his deputy, H. Terry Hawkins. See Stillman’s account of the story in “China’s Decade of Nuclear Transparency,” chapter 14 in *The Nuclear Express: A Political History of the Bomb and Its Proliferation*, by Thomas C. Reed and Danny B. Stillman (Minneapolis, MN: Zenith Press, 2009), 220–234.

formal United States-China lab-to-lab exchanges, with American delegations led by the directors of its major nuclear labs.¹² These can best be thought of as formal Track 1 activities. Circumstances under which the United States-China lab-to-lab visits ended, and the on-again, off-again character of United States-China military-to-military talks, will be discussed more fully later in this paper.

Today there are several informal security dialogues outside of the Track 1.5/2 process, which also provide the opportunity for Americans to interact with Chinese counterparts to discuss nuclear issues. They include

- **STRATCOM Deterrence Symposium.** Since 2009, the Commander of U.S. Strategic Command (STRATCOM) has sponsored an annual Strategic Deterrence Symposium in Omaha, Nebraska. This event is unclassified and held in the town of Omaha, not at near-by Offutt Air Force Base (AFB) where STRATCOM is headquartered. Strategic Deterrence Symposia were convened in Omaha in 2009, 2010, and 2011, but fell victim to budget cuts in 2012 and 2013. STRATCOM revived the symposium in 2014. On several occasions, China has sent Major General (then Senior Colonel) Yao Yunzhu to speak in this forum (more will be said about General Yao later in this paper).¹³
- **Carnegie International Nuclear Policy Conference.** For a number of years, the Carnegie Endowment has convened a bi-annual international security conference in Washington DC, with a focus on nuclear nonproliferation, arms control, and strategy issues. The Carnegie conference (which is on the record and open to the media) brings together serving officials with the broader retired diplomatic and military community, academics, scientists, activists, and other interested parties. In the early years of this event, senior Chinese participants typically were diplomats with backgrounds in nuclear disarmament and arms control activities. It was rare to encounter Chinese military officers at this conference discussing nuclear policy and strategy issues. That no longer is true. At the 2013 conference, for instance, Major General Yao appeared on a panel with Under Secretary of State Rose E. Gottemoeller and Alexei Arbatov, with George Perkovich as the moderator. The panel addressed nuclear deterrence, as well as nonproliferation and arms control questions.

¹² See Siegfried S. Hecker, "Adventures in scientific nuclear diplomacy," *Physics Today* (July 2011): 31–37. Hecker was director of Los Alamos from 1986 to 1997.

¹³ Yao Yunzhu is a Major General in the People's Liberation Army (PLA) and has become one of China's leading spokespersons in the West on nuclear policy and strategy. Her English is excellent; she demonstrates considerable expertise in her prolific writings on the subject; and has studied in the United States.

- **IISS Shangri-La Dialogue.** Since 2002, the Institute for International Security Studies (IISS) has convened an annual Asia Security Summit (also known as the Shangri-La Dialogue) in Singapore. This is a high-level conference, where the American delegation typically is led by the Secretary of Defense.¹⁴ In 2013, Secretary of Defense Chuck Hagel spoke at Shangri-La, while the Chinese delegation (typically smaller than that of the United States) was led by the Deputy Chief of the PLA General Staff. The Shangri-La plenary and panel sessions are on-the-record, open to the media, involve questions and answers (Q&A) from the audience, and are documented in written and video formats. Former officials and military officers mingle with current civilian officials and military officers, academics, scientists, public figures, correspondents, and others, at the conference and on its margins. Major General Yao was one of the Chinese attendees at the 2013 Shangri-La Dialogue who publicly questioned Secretary Hagel.

In the past decade, there also have emerged other opportunities for Americans to engage with Chinese on nuclear weapons policy and strategy issues. Two of the more prominent are

- **PONI Working Group on United States-China Nuclear Dynamics.** The Center for Strategic and International Studies (CSIS) launched the Project on Nuclear Issues (PONI) in 2003 to help develop the next generation of nuclear weapons policy experts and officials in the United States. In 2012, PONI commissioned a Next Generation Working Group to study the trends and dynamics of United States-China nuclear issues and relations, and to draft a report that could inform and influence policy discussions in Washington and Beijing. Although the report was drafted by an exclusively American working group, it took into account Chinese critiques. In September 2012, members of the Working Group traveled to Beijing for a series of discussions with Chinese analysts and officials. The Working Group presented their initial findings to their Chinese interlocutors and took Chinese reactions under consideration in preparing the final report.¹⁵
- **United States-Chinese Glossary of Nuclear Security Terms.** For many years the Committee on International Security and Arms Control (CISAC) of the American National Academies of Science (NAS) has been meeting with its Chinese counterparts for Track 2 discussions of nuclear arms control,

¹⁴ The Shangri-La Dialogue does not fall neatly into either the Track 1 or the Track 1.5/2 category.

¹⁵ *Nuclear Weapons and U.S.-China Relations: A Way Forward* (Washington, DC: CSIS, March 2013).

nonproliferation, energy, and regional security issues.¹⁶ In 2006, the NAS/CISAC Track 2 began a joint project with the Chinese to produce an unclassified glossary of nuclear security terms. The glossary was prepared by teams from both sides, and reviewed in draft form by Americans and Chinese chosen for their diverse perspectives and technical expertise. The project resulted in a glossary published simultaneously in Washington, DC and Beijing.¹⁷

There are other Track 2s on security issues organized by the Pacific Forum CSIS, the Monterrey Institute for Strategic Studies, university institutes (especially at Stanford and the University of California, San Diego), and a variety of NGOs. They all point to how far the concept of a Track 2 has evolved since the phrase originally was coined over thirty years ago.

C. Origins and Evolution of the Track 1.5/2 Concept

In 1981, Joseph V. Montville (then an American Foreign Service Officer and Middle East specialist) was focused on the Israeli-Palestinian conflict. He wanted to find ways to navigate around the sterile and highly bureaucratic formal mechanisms for conflict resolution. Montville and a colleague (both trained in political psychology) coined the new phrase “Track 2” to refer to a type of unofficial diplomacy that could bring retired civil and military officials, academics, public figures, and social activists together in an informal setting intended to create conditions favorable to conflict resolution, and provide opportunities for less structured discussions than those conducted in official (Track 1) channels.

In their 1981 article in the journal *Foreign Policy*, Montville (who today is board chair and senior fellow at the Center for World Religions, Diplomacy, and Conflict Resolution at George Mason University) and William D. Davidson (who in 1981 was the president of the Institute for Psychiatry and Foreign Affairs) applied concepts developed by Harvard social psychologist Herbert C. Kelman. Kelman asserted “that although international conflicts typically result from conflicts of interest and ideological differences, psychological factors also contribute to escalation and perpetuation of conflict by creating barriers to the occurrence and perception of change.”¹⁸

¹⁶ CISAC has similar discussions with the Russians and with the Indians on nuclear matters.

¹⁷ *English-Chinese Chinese-English Nuclear Security Glossary* (Washington, DC: National Academies Press, and Beijing: Atomic Energy Press, 2008).

¹⁸ William D. Davidson and Joseph V. Montville, “Foreign Policy According to Freud,” *Foreign Policy* 45 (Winter, 1981-1982): 153.

Montville and Davidson took this as their starting point. Expanding on Kelman's thesis, Montville and Davidson described Track Two diplomacy as:

. . . unofficial, non-structured interaction. It is always open minded, often altruistic, and in Kelman's words, strategically optimistic, based on best case analysis. Its underlying assumption is that actual or potential conflict can be resolved or eased by appealing to common human capabilities to respond to good will and reasonableness.¹⁹

This is the earliest definition for a concept that has evolved significantly since the phrase was coined. National delegations to Track 1.5/2s may be at fairly senior levels (e.g., retired four-star, ambassador, or agency head level) or by mid-level officials (office directors and institute heads). Track 1.5/2s may convene annually for two or three days, during which large plenary sessions are combined with smaller breakout groups, working lunches and dinners, receptions, and other opportunities for the delegations to carry on discussions with their counterparts.

The original Montville-Davidson article characterized Track 2 dialogue as "open minded and altruistic."²⁰ This may be an aspiration, but it is not a necessary condition for the talks. Individuals come to their encounters with the Chinese with multiple motivations. Advancing one's personal views often is a priority, and on the American side, fundamental attitudes toward nuclear weapons (pro and con) also may come into play. Organizations traditionally critical of aspects of official U.S. policy (such as the Union of Concerned Scientists) convene Track 2s.²¹ Even in Track 1.5/2 talks that seek simply to objectively describe and explain American nuclear policy, strategy, and related issues (such as missile defense, prompt conventional global strike, or the pivot to Asia in national security strategy), it is not uncommon to find members of the American delegation disagreeing with one another. As stated earlier, many of the Track 1.5/2s are not coordinated with one another, and there is no place (official or otherwise) in the United States that monitors and records the results of all the nuclear-related Track 1.5/2s.

D. The Chinese Approach to Track 1.5/2 Talks

As for the Chinese side of the dialogue, Americans do not know how the Chinese government (more accurately, the Party apparatus that permeates and controls the Chinese government) attempts to monitor, coordinate, exploit, and otherwise control

¹⁹ Ibid., 155.

²⁰ Ibid.

²¹ Gregory Kulacki is a senior analyst and China Project Manager in the Global Security Program at the Union of Concerned Scientists, who coordinates Track 2 workshops with Chinese scientists and other experts. See Gregory Kulacki, "Chickens Talking With Ducks: The U.S.-Chinese Nuclear Dialogue," *Arms Control Today* (October 2011).

Chinese participation in Track 1.5/2 activities, beyond normal practices such as reviewing and approving prepared remarks or (for active-duty civil or military officials) handling subsequent press inquiries, and providing “barbarian handlers” for Americans visiting China.

Chinese experts typically seek to portray Chinese participation in Track 1.5/2s as objective, sincere, and benign. For instance, in his 2011 description of the evolution of Chinese scientific participation in nuclear-related unofficial dialogues, Li Bin (who in 2011 was at the Carnegie Endowment, but who earlier was a physicist by training, who had made his career at a number of official Chinese nuclear weapons institutes and on arms control delegations in China)²² wrote:

In the late 1980s, the Chinese nuclear establishment, including the Beijing Institute of Applied Physics and Computational Mathematics (IAPCM) and China Academy of Engineering Physics (CAEP), began to send its scientists to international dialogues involving scientists from around the world. The tradition and expertise in exchanges in the science community encouraged the Chinese scientists to engage with their peers from other countries on strategic nuclear issues. At the beginning, the Chinese scientists chose to join discussions only on topics of a more technical nature, for example, the consequences of nuclear war and verification of nuclear reductions. The Chinese scientists utilized the common tools of scientific exchange such as graphs and formulas, to engage with their counterparts. In this process, they developed friendship with and trust in scientists from other countries. They gained experience and confidence in dialogue on nuclear policy issues and came to understand the importance and benefits of these dialogues. They also realized that some special expertise is needed to engage on strategic issues.

With the assistance of scientists from Italy and the United States, among others, Chinese nuclear institutions began to apply for funding from international organizations to organize their own international nuclear dialogues and to train their students on strategic nuclear issues. They also sent their young scientists to receive training on nuclear arms control and nonproliferation at American universities such as Princeton, MIT, Stanford, and the University of Maryland, at non-governmental organizations like the Union of Concerned Scientists, and at the U.S. national labs, in particular the Cooperative Monitoring Center at the Sandia National Laboratories. These trainees are now mid-career and most of them play important roles in the strategic nuclear dialogue between China and other countries. The expertise in strategic dialogues

²² Li Bin was a professor of international at Tsinghua University, where he was the founding director of its arms control program. He previously had directed the arms control division at the Institute of Applied Physics and Computational Mathematics, and was a member of China’s delegation to the Comprehensive Test Ban Treaty (CTBT) negotiations.

built in the Chinese nuclear establishment gives their leaders the confidence to encourage participation in such dialogues at all levels and in different formats. The 1999 U.S. Cox Commission Report, which accused Chinese nuclear scientists of spying, among other charges, interrupted the nascent U.S.-Chinese lab-to-lab dialogue. The Chinese nuclear establishment has set as a precondition to resume the dialogue that the U.S. government formally acknowledge the benefits of the prior U.S.-China lab-to-lab exchange. Although the United States has yet to meet this precondition, scientists from the Chinese nuclear establishment never mind talking with and hosting scientists from U.S. national labs at various nuclear dialogues.²³

Li Bin claims that the release of the Cox Commission report essentially ended United States-China lab-to-lab exchanges and dialogues.²⁴ That is true in a narrow sense, but it did not derail the Track 1.5/2 process with China on nuclear issues. Americans from universities, NGOs, Federally Funded Research and Development Centers (FFRDC), and other such entities continued to meet.

Their Chinese counterparts came from a variety of institutions in China, all of which are affiliated in one form or another with Chinese national security organizations. Prominent among the Chinese institutions represented in nuclear Track 1.5/2s are

- **China Arms Control and Disarmament Association (CACDA).** When CACDA was founded in 2001, the Xinhua News Agency described it as China's first NGO for disarmament and reported that its opening ceremonies were attended by senior Chinese officials including the Vice Premier (then Qien Qichen) and the Vice Chairman of the Central Military Commission (then Chi Haotian). Mr. Qien described CACDA as an institution for conveying to the

²³ Li Bin, "Promoting Effective China-U.S. Strategic Nuclear Dialogue" (Washington, DC: Carnegie Endowment, October 18, 2011), 2.

²⁴ Representative Christopher Cox (R-CA) chaired the House Select Committee on U.S. National Security and Military/Commercial Concerns With China. In May 1999, the Cox Commission published a report that among other things, claimed that the Chinese had stolen classified information on the W88 and six other nuclear warheads. See Shirley A. Kan, *Suspected Acquisition of U.S. Nuclear Weapon Secrets* (Washington, DC: Congressional Research Service, updated February 1, 2006). The release of the report coincided roughly with the American accidental bombing of the Chinese embassy in Belgrade, in the NATO air campaign against Serbia. At the time, a group of American nuclear scientists were in China on one of the many lab-to-lab visits that had taken place since the early 1990s. At a dinner hosted for the Americans by Hu Side (then director of the China Academy of Engineering Physics, which is the Chinese organization responsible for China's nuclear weapons development), Hu Side abruptly began the dinner with a well-rehearsed speech that blasted the Cox Report, denounced the bombing (which the Chinese refused to believe was accidental), and asserted that the United States was using Wen Ho Li (a scientist at Los Alamos suspected of espionage) as a scapegoat. Hu Side reportedly said: "You have seriously and probably permanently damaged the scientific and lab-to-lab exchanges." Reed and Stillman, *The Nuclear Express*, 362.

outside world China's "principled stance and policy" on arms control and disarmament issues, and for promoting "China's international image."²⁵

- **Chinese Academy of Military Science (AMS).** The Academy of Military Science of the People's Liberation Army is headed by a president who usually is a senior general officer. The AMS, according to Bates Gill and James Mulvenon, is the largest single research organization in the PLA.²⁶ AMS researchers write reports for the General Staff Department and the Central Military Commission, draft speeches for senior military leaders, and serve on small groups as drafters of major documents such as the Defense White Paper. Major General Yao Yunzhu, the director of the Center for China-American Relations at the AMS, is a frequent and especially knowledgeable participant in nuclear-related Track 2 talks. More will be said about General Yao's views later in this paper.
- **China National Defense University (NDU).** China's NDU was formed in 1985 by combining three colleges (logistics, political/commissar, and general military) into a single entity. Operating under the Central Military Commission, China's NDU combines training and research functions. Rear Admiral (Ret) Yang Yi, while serving as director of the Institute for Strategic Studies (ISS) at China's NDU, frequently led Chinese delegations to mid-level Track 2 nuclear talks. The ISS of China's NDU, according to Bates Gill and James Mulvenon, has been the home of some of China's most respected strategic thinkers.²⁷
- **China Academy of Social Science (CASS).** The CASS, which was established in 1977, is made up of several dozen research institutes and is affiliated with the People's Republic of China's (PRC) State Council. In 2011, the American journal *Foreign Policy* ranked CASS as the top think tank in Asia. CASS is more academic in nature than the military think tanks, but certainly is well connected.
- **China Institute of Contemporary International Relations (CICIR).** CICIR is another Beijing-based institute, reportedly affiliated with the Ministry of State Security. CICIR often sends delegations to the United States to interview American analysts and closely follows contemporary political events in America. Some think of it as the equivalent of America's Open Source Center.

²⁵ Xinhua News Agency, "NGO Aims to Promote Disarmament and Arms Control," August 21, 2001. <http://www.china.org.cn/english/FR/17825.htm>.

²⁶ Bates Gill and James Mulvenon, "Chinese Military-Related Think Tanks and Research Institutions," *China Quarterly* (September 2002): 622.

²⁷ *Ibid.*, 623.

In 2011, the Think Tanks and Civil Societies Program (TTCSP) at the University of Pennsylvania ranked CICIR as the top Chinese think tank in security and global affairs, and as the twenty-third best worldwide. For comparison's sake, Brookings was ranked first worldwide and Chatham House second.²⁸ Cui Liru, who was president of CICIR from 2005 to 2013, now is on the board of directors of the Washington-based Nuclear Threat Initiative (NTI).

- **Shanghai Institute of International Studies (SIIS).** The SIIS also reportedly is affiliated with the Foreign Ministry. However, given that it is physically removed from Beijing, it appears to have somewhat greater independence than other such Chinese think tanks. The University of Pennsylvania index report ranked the SIIS as the forty-seventh best think tank worldwide for security and global affairs.²⁹
- **China Foundation for International Strategic Studies (CFISS).** Founded by former Chinese military officers, the CFISS reportedly has close connections with the Chinese military.
- **China Institute of International Studies (CIIS).** CIIS reportedly is a research institute of the General Staff's Second Department (Intelligence). Bates Gill and James Mulvenon describe it as "the premier intelligence analysis think tank in the Chinese military,"³⁰ although not all American China experts share this view.
- **Chinese Scientists Group for Arms Control (CSGAC).** The CSGAC is the counterpart organization to the American National Academies of Science on International Security and Arms Control, for discussions of nuclear matters. The CSGAC is chaired by Hu Side, former president of the Chinese Academy of Engineering Physics (CAEP). CAEP is the umbrella organization for China's nuclear weapons enterprise.³¹

China also sends officials (to include the Second Artillery) to participate in Track 1.5/2s in an informal capacity. Additionally, there are a growing number of institutes,

²⁸ James G. McGann, *2011 Global Go To Think Tanks Index Report* (Philadelphia, PA: University of Pennsylvania, 2012), 36.

²⁹ Ibid.

³⁰ Gill and Mulvenon, "Chinese Military-Related Think Tanks and Research Institutions," 619.

³¹ Hu Side graduated in 1958 from Fudan University with a degree in theoretical physics. He became a nuclear weapons designer and rose through the ranks to be director of the China Academy of Engineering Physics—the organization with overall responsibility for China's nuclear weapons program. In his retirement, Academician Hu Side has been a frequent participant in Track 2 meetings.

centers, and programs at places like Tsinghua, Fudan, Peking, and other leading Chinese universities, which provide participants to Track 1.5/2 security talks.

Track 1.5/2s on the traditional model normally are closed to the public and media, and are conducted under the Chatham House rule (views are not attributed by name to individuals). In United States-China Track 2s, language always is a problem for both sides. Most Americans at the talks do not read or speak Chinese, and while nearly all Chinese participants have some English, their language skills often are not up to the demands of extended discussions of complex nuclear issues. Interpreters may be provided for organized sessions (an expensive proposition for Track 1.5/2 organizers), but normally not for group meals or other discussions on the sidelines of the talks.

3. Nuclear Track 1.5/2s with China Since 2000

This chapter discusses the reasons for beginning the nuclear Track 1.5/2 talks in Beijing and Honolulu that are sponsored by the Department of Defense (DOD), and describes insights gained from those (and other) informal discussions with China.

A. Shifting Sino-American Relations from 1972 to 2000

In 1972, President Nixon made his historic trip to Beijing, and in late 1978, President Jimmy Carter normalized relations with China, setting the stage for high-level security talks and for military-to-military contacts between the United States and China. Washington suspended the military-to-military contacts after the Chinese military was ordered to violently suppress the demonstrators in Tiananmen Square in 1989, and did not resume them until 1994.³²

Since 1994, United States-China military-to-military contacts have been an on-again, off-again affair, often suspended by the Chinese (and sometimes the Americans) as a diplomatic signal of their displeasure with the other's recent policy or behavior. At the same time, opportunities for escalation of crises in the nuclear shadow have occurred all too frequently.

In 1995 and 1996, for instance, the PLA fired missiles toward target areas near Taiwan and threatened military intervention if Taiwan declared independence, leading the United States to send two carriers to the region in a show of force. In 1999, American aircraft involved in NATO operations against Serbia bombed the Chinese embassy in Belgrade—a case of mistaken target identification that many Chinese believed was deliberate, coming as it did in the immediate aftermath of intense public debate in the United States on Chinese espionage. In 2001, a Chinese fighter collided with an American reconnaissance aircraft, leading it to make an emergency landing on China's

³² In November 1993, Assistant Secretary of Defense for International Security Affairs Chas Freeman went to China to discuss resuming military-to-military contacts. Agreement was reached, and in January 1994, the President of the American National Defense University visited his counterpart in China, re-launching the process. For discussion of how the process has progressed, see Shirley A. Kan, *U.S.-China Military Contacts: Issues for Congress* (Washington, DC: Congressional Research Service, July 25, 2013).

Hainan Island. China detained the twenty-four American Navy aircrew members for eleven days.

Today there are tensions in the East and South China Seas. For instance, in late 2013, China declared an air defense zone over disputed territories, and the United States (in support of its Japanese ally) sent B-52s to challenge the air defense zone.

For the better part of past two decades, the United States has been preoccupied with events outside of the Asia-Pacific region. The breakup of the Soviet Union and the First Gulf War focused America on events in the Balkans and the Middle East. The shock of the attacks against the United States on September 11th, 2001 (9/11) was followed by a decade of new American wars as the United States pursued al-Qaeda and its affiliates worldwide and sent the U.S. military into Afghanistan and Iraq. Post-9/11 statements by the President and his senior security officials conveyed the message that deterrence was an inadequate doctrine for new types of foes.

Many Chinese viewed this message as being directed at them. Chinese suspicions were heightened and extended to nuclear matters when, in early 2002, what was alleged to be a copy of the classified U.S. *2001 Nuclear Posture Review* (NPR) report to Congress leaked and was published online by activists, prompting the Chinese to vigorously object both to being allegedly listed as a nation for which the United States prepared nuclear targeting plans, and providing what they claimed was evidence that America was adopting a preemptive nuclear strategy against China.

America's intervention in Iraq in 2003 without United Nations (U.N.) Security Council consent, and the swift campaign that deposed Saddam Hussein added fuel to this fire. By the middle of the first decade of the twenty-first century, China's concerns, misplaced or not, about America's nuclear intentions toward China were manifest. This was a highly unstable situation.

B. Department of Defense (DOD)-Sponsored Nuclear Track 1.5/2 Talks in Beijing and Hawaii

It was against this backdrop of no reliable and continuing military-to-military contacts with the Chinese, the steady growth in Chinese power, all-too-frequent incidents that could escalate into confrontations, and no effective forum for addressing and dispelling Chinese misapprehensions about America's nuclear policies, that the Advanced Systems and Concepts Office (ASCO) of the Defense Threat Reduction Agency (DTRA)

began sponsoring informal security dialogues with China in the early 2000s, to address nuclear issues and regional security.³³

In 2004, ASCO began funding such talks, first in Beijing, but then joined by a separate but related track in Hawaii (a mid-way point for the two sides to meet). Although American officials attended such talks in an unofficial capacity from the start, in the early years they were a small part of the American delegation, and the talks were closer to a classic Track 2. Today, with more officials, they more appropriately are thought of as Track 1.5s.

The Beijing nuclear security dialogues were conceived as a process where the American delegation would be led by a senior retired American official (a retired four-star) knowledgeable about American nuclear weapons. This series of talks (called the United States-China Dialogue on Strategic Nuclear Dynamics) initially was organized by a consortium of IDA, RAND, and CSIS in partnership with the Chinese organization CFISS. It met in Beijing once a year, beginning in 2004. The eighth (and most recent) meeting of this Beijing series took place in November 2013, and the ninth is scheduled for the fall of 2014. The meeting has grown over time with some eighty-five Chinese and American experts, officials, and observers attending the most recent session, all in an unofficial capacity.

A second series of talks take place annually in Hawaii. The American delegation to the Hawaii talks (which are called the United States-China Strategic Dialogue) is headed at a less senior level than is the case for the Beijing series, although many of the same Americans attend both the Beijing and the Hawaii talks. The Seventh meeting in this Hawaii series was held in June 2012. There was no round of the Hawaii talks in 2013, but the talks resumed in 2014.

Both the Beijing and Hawaii Track 1.5/2s are coordinated ahead of time with the Office of the Secretary of Defense for Policy (OSD (P) and the State Department. Observers from Defense, State, and the Department of Energy (DOE) often participated in an *unofficial* capacity, technically making the talks a Track 1.5 activity. After-action reports are delivered in briefings to a number of government staffs in Washington, and to the staffs of U.S. Pacific Command (PACOM) and STRATCOM. There are some written

³³ ASCO was established in 1998 when DTRA first was created, to be DOD's internal think tank on issues related to weapons of mass destruction. ASCO had a charter to look over the horizon at emerging issues and to identify ways to advance American security on weapons of mass destruction (WMD) matters that were proactive as well as reactive. Russia, China, India, and Pakistan were the countries focused on in ASCO's original Track 1.5/2 endeavors.

records of the discussions available to the public on the Internet.³⁴ To date, there have been fifteen rounds of these Track 1.5/2s—eight held in Beijing and seven in Hawaii.

C. Insights from the Beijing and Hawaii Talks

In the meetings stretching over nine years, there were days of discussion ranging over many issues. The meetings involved a high noise-to-content ratio and considerable repetition. The language barrier often inhibited attempting to extract significant findings from ambiguous discussions. There always was a temptation (which the American organizers tried to mitigate when they set the agendas) to allow current events (the most recent crises, white papers, and public statements) to dominate the talks. Further there is a frustrating need to begin each session by characterizing the broad political relationship at the time.

Patterns have emerged. The Chinese generally have a set of issues that the American organizers of the talks call the Chinese “boilerplate.” Although these change over time, they are characterized by closely hewing to the official Chinese government complaints about contemporary American policies. When the Chinese offer some variant of their boilerplate assertions, one or more Americans try either to correct them where they are wrong, or explain a more nuanced view when the assertions had some basis in reality. One positive development is that in recent rounds, there apparently has been less time spent on boilerplate discussions than in earlier years.

In no particular order, the Chinese security concerns and nuclear themes advanced at the fifteen Beijing and Hawaii Track 1.5/2s covered the following kinds of major points:

- America aspires to hegemonic power worldwide. It has a stated policy of being the most powerful military. It wants to make the world safe for itself. It seeks maximum security.
- America’s long-term agenda in the Asia-Pacific region is to contain China and to achieve regime change in China. The current American rebalancing to the region is aimed at China.

³⁴ For the publicly available reports on the recent discussions, see Michael Glosny, Christopher Twomey, and Ryan Jacobs, *U.S.-China Strategic Dialogue: Phase VII Report* (Monterey, CA: U.S. Naval Postgraduate School, Center on Contemporary Conflict, Project on Advanced Systems and Concepts for Countering WMD, Report No. 2013 005, May 2013); and Ralph Cossa, Brad Glosserman, and David Santoro, *Progress Continues, but Disagreements Remain: The Seventh China-US Strategic Dialogue on Strategic Nuclear Dynamics and the Inaugural China-US Dialogue on Space Security* (Pacific Forum CSIS, PacNet #36, Issues & Insights, May 29, 2013).

- America does not abide by the rules it wrote when it created the modern international system. It intervenes abroad militarily without the consent of the U. N. Security Council.
- Even when it does invoke the rules, America observes double standards. It holds countries like North Korea and Pakistan to a different standard than it does countries like India or Israel. It chooses what rules to follow, which to ignore, and which to reinterpret in ways favorable to American interests.³⁵
- America pursues destabilizing programs, for example, ballistic missile defense (BMD) and conventional prompt global strike (CPGS).
- Many of America's activities in the Asia-Pacific region are highly destabilizing. Major examples are arms sales to Taiwan, the nuclear deterrent extended to Japan and South Korea, AirSea Battle, and American military reconnaissance close to Chinese territory.
- As for China's approach to nuclear policy and strategy, "no first use" of nuclear weapons is an abiding Chinese principle. This is a political decision that has been reaffirmed by China's leadership since China first became a nuclear power in 1964. China challenges the United States to join in an unequivocal no-first-use pledge.
- As a weaker power, China, of course, pursues a different strategy against major power adversaries. In the nuclear realm, this commitment sets limits on how transparent China can be about its nuclear activities and intentions, since a degree of ambiguity enhances deterrence.
- China needs a *lean and effective* nuclear force to deter coercion or attack on its territory and to sustain its status as an international power so long as others have nuclear weapons.
- China has a retaliatory-only strategy, and strives to make its retaliatory nuclear forces more survivable. The United States seeks to undercut this strategy through BMD and CPGS. The United States refuses to acknowledge a mutual nuclear vulnerability relationship with China.
- China does not engage in nuclear arms races to match the major powers. China has a much smaller nuclear force than the United States or Russia. It is modernizing its nuclear forces to keep them sufficient for China's needs and for

³⁵ The last Track 1.5/2 in this series took place in January 2013, before former National Security Agency (NSA) contractor Edward Snowden defected and released a massive trove of NSA documents. Snowden first went to Hong Kong, then to Russia, where he currently has temporary asylum.

its retaliatory strategy. China never has had, nor does it aspire to have, a nuclear counterforce targeting strategy.

- China welcomes American and Russian reductions under New START (Strategic Arms Reduction Treaty), but until the numbers are much lower, China cannot consider joining arms control. China's long-term goal is complete nuclear disarmament for everyone, everywhere.

Within the broad confines of this recurring framework of themes, the Chinese participants at the fifteen Beijing and Hawaii Track 1.5/2s have responded to American overtures designed to probe Chinese thinking on things like crisis stability, the concept of escalation, nuclear signaling, cross-domain deterrence, and others (the list is long).

While it is not uncommon to see the Chinese at these Track 1.5/2s disagreeing among themselves, it is difficult (perhaps impossible) to assess the extent to which disagreement at Track 1.5/2 discussions mirrors the internal Chinese debate. American China experts are confident that such debates take place. The American after-action report on the June 2011 Track 2 in Honolulu says: "Several times during the meeting, Chinese participants referred to internal debates within the PRC, on a variety of topics, from force posture to conditions for Chinese participation in arms control negotiations. These are important windows into Chinese deliberations and decision-making processes. There was far more discussion of these internal deliberations at this meeting than at any of the previous Track II/1.5 meetings in Hawaii or Beijing."³⁶ Notwithstanding these windows, China's nuclear intentions and the prospects of changes in China's nuclear policy and strategy remain veiled.

One of the stated American purposes behind the DTRA-funded Track 1.5/2s is "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."³⁷ Three examples show how this can be pursued in conversations within or on the margins of the China nuclear Track 1.5/2s:

- Americans repeatedly have sought to dispel Chinese misperceptions on America's refusal to join a no-first-use pledge, both by clarifying what the NPRs of 2001 and 2010 actually said, and (at very senior levels), explaining that refusal to declare no-first-use does not mean that the United States has a first-use policy. American position on no-first-use is further explained in terms of deterrence theory (retaining ambiguity) and the imperatives of extended

³⁶ Eben Lindsey, Michael Glosny, and Christopher Twomey, *US-China Strategic Dialogue, Phase VI* (Monterey, CA: Naval Postgraduate School, Center on Contemporary Conflict, Project on Advanced Systems and Concepts for Countering WMD, November 2011), 8.

³⁷ Glosny, Twomey, Jacobs, *U.S.-China Strategic Dialogue, Phase VII Report*, 5.

deterrence (assurance of allies). In recent meetings, however, the Chinese more rarely and certainly less persistently raise this point.

- On many occasions, Americans have made the point that U.S. interest in conventional prompt global strike capabilities are driven by countries like North Korea, not by a desire to target the Chinese. Ironically, the Chinese have taken the NDAA Section 1045(a) study that tasked STRATCOM to report to Congress on its ability to hold Chinese tunnels at risk with all forms of strike, including conventional, as evidence that the United States is pursuing CPGS because of China. At the Hawaii Track 1.5/2 in 2011, the United States provided the Chinese with an unofficial set of confidence-building measures prepared by Linton Brooks that the United States and the PRC might pursue. On CPGS, the proposal was: “The two sides should develop a set of procedures for notifications to China of future launches of Prompt Global Strike systems. These procedures should be used during future development launches, but should ultimately be available for operational launches. Once the preliminary procedures have been developed, they should be exercised through a joint U.S.-China tabletop exercise involving military staffs of both countries.”³⁸ This recommendation was based on an idea developed by M. Elaine Bunn and Vincent A. Manzo.³⁹ Until the publication of James Acton’s recent book⁴⁰ calling for U.S. research in this area, this topic had receded in importance in China’s boilerplate concerns.
- The Chinese assert that American missile defense activities in the region undercut China’s ability to have an assured second strike capability, especially when coupled with CPGS. The Americans repeatedly deny that this is their aim, again often using North Korea as a focus of the discussion, and attempting to explain the limited nature of the American missile defense programs. At the Hawaii Track 1.5/2 in May 2011, Linton Brooks proposed a confidence building measure on missile defenses, expanding on a proposal made by Hu Side at the fifth round of the Beijing talks in November 2010. Brooks proposed that “[t]o help China understand the U.S. national ballistic missile defense system,

³⁸ Ambassador Linton F. Brooks, “Looking to the Future. The Post-New Start World and Potential Sino-U.S. Confidence Building Measures,” a U.S. paper on confidence and security building measures (CSBM), presented at the 6th U.S.-China Strategic Dialogue on U.S.-China Strategic Nuclear Dynamics, held in Honolulu on June 5–7, 2011. Appended to Lindsey, Glosny, and Twomey, *US-China Strategic Dialogue, Phase VI*, 34–35.

³⁹ M. Elaine Bunn and Vincent A. Manzo, “Conventional Prompt Global Strike: Strategic Asset or Unusable Liability?,” National Defense University, *Strategic Forum* (February 2011).

⁴⁰ James M. Acton, *Silver Bullet: Asking the Right Questions About Conventional Prompt Global Strike* (Washington, DC: Carnegie Endowment for International Peace, 2013).

government technical experts from China and the United States (including the U.S. Missile Defense Agency) should conduct a multi-day joint technical analysis of the U.S. program and its capabilities against Chinese systems. Separately, the two sides should conduct a Joint Threat Analysis of the North Korean missile threat, similar to that recently completed by the United States and the Russian Federation.”⁴¹ Additionally, the United States has deepened its understanding of the nature of China’s concerns regarding missile defense, to include particular emphasis on advanced variants of the SM-3 missile that, if deployed near the continental United States (CONUS), might have significant effects on the penetrability of China’s second-strike forces. Given that the United States does not routinely expect to have guided missile destroyers and cruisers so deployed, this Chinese perspective was not appreciated by most Americans prior to a series of Chinese presentations on the topic at Track 1.5/2 meetings.

D. Insights from the Project on Nuclear Issues (PONI) Next Generation Working Group on China

In 2003, CSIS launched the PONI to help develop a community of interest and training program for the next generation of nuclear policy experts and officials in the United States. Since 2003, PONI has adopted a number of approaches, sponsoring workshops, symposia, debates, and presentations for the participating PONI members (often in their 20s and 30s), and allowing them the rare opportunity for young professionals to get their ideas heard directly by senior military and civilian officials.

In 2010, PONI created a Next Generation Working Group to study models and dynamics of United States-Russian nuclear issues and relations, and in February 2012 created a second Next Generation Working Group, this time focused on China. The China Working Group was co-chaired by Elbridge A. Colby (Center for Naval Analyses, CNA) and Abraham M. Denmark (vice president for political and security affairs at the National Bureau of Asia Research, NBR). It included James M. Acton (Carnegie Endowment), Jay K. Brotz (Sandia), Michael S. Chase (Naval War College), M. Taylor Fravel (Massachusetts Institute of Technology), Michael S. Gerson (Gerson Lehrman Group), Michael Horowitz (University of Pennsylvania), Patrick Lobner (Booz Allen Hamilton), Oriana S. Mastro (Princeton University), Vipin Narang (University of Wisconsin at Madison), Ely Ratner (Center for a New American Security), John K. Warden (CSIS, who served as executive director of the Working Group), and Robert

⁴¹ Brooks, “Looking to the Future,” 34.

Zarate (Foreign Policy Institute). Senior advisors to the Working Group were Linton Brooks, Bonnie Glaser, Jeffrey Lewis, David Santoro, and Randy Schriver.⁴²

The PONI Working Group on United States-China Nuclear Dynamics conducted its study in 2012. In September 2012, several members of the group traveled to Beijing where, in a series of roundtable discussions with Chinese analysts and officials, they presented their initial findings. This was preceded by discussions in Tokyo with Japanese experts and officials. In March 2013, the Working Group submitted its completed report.⁴³

The report recommended inter alia that “[t]he United States should . . . continue its efforts to urge China to engage in a more sustained and in-depth dialogues on strategic issues” that “should focus primarily on eliciting greater insight into how China thinks about the role and potential use of its nuclear weapons, its red lines and perception of its vital interests, its conception of escalation and related topics.” The “dialogue should also focus on exploring mechanisms for information exchange.”⁴⁴

The report has a number of other ideas and proposals for confidence building measures. They are not discussed in this paper, but the author recommends that readers consult the complete report and another recent publication which, while not part of the PONI Track 2, was co-edited by two key participants in the CSIS PONI Working Group on United States-China Nuclear Dynamics, was under development at the same time that the PONI Working Group was conducting its studies, and has a chapter on the Chinese view on strategic stability and reductions by Lora Saalman, an American associate at the Carnegie Endowment, who was the first American to earn a doctorate from the Department of International Relations at Tsinghua University.⁴⁵

Of relevance to the current discussion is what the PONI Working Group learned from their Track 2 interactions with the Chinese in September 2012. The U.S. delegation to Beijing consisted of seven working group members, including the two co-chairs. They met with Chinese counterparts from Peking University, the Chinese Academy of Social Sciences, Renmin University, CADA, China’s NDU, CICIR, CACDA, the China Reform Forum, China Foreign Affairs University, Xinhua (a former member), and *People’s*

⁴² Brooks and Glaser also have been active participants in the Beijing and Hawaii Track 1.5/2 talks described earlier in this paper.

⁴³ *Nuclear Weapons and U.S-China Relations: A Way Forward* (Washington, DC: CSIS, May 2013). Available at <http://csis.org/publication/nuclear-weapons-and-us-china-relations>.

⁴⁴ Ibid., vi.

⁴⁵ Elbridge A. Colby and Michael S. Gerson, editors, *Strategic Stability: Contending Interpretations* (Carlisle, PA: U.S. Army War College Strategic Studies Institute, February 2013).

Daily. Some of the Chinese also had participated in one or more of the Beijing and Hawaii Track 1.5/2s discussed earlier in this paper.

The key findings the Americans took away from their discussions with the Chinese are repeated verbatim below from their trip report.⁴⁶

- There was general agreement that U.S-China nuclear weapons relations would benefit from a mutually agreed on conceptual framework that is currently lacking. One idea proposed by several Chinese experts was mutual recognition that both U.S. and Chinese nuclear arsenals possess second strike capability.
 - However, one Chinese participant argued that such a relationship cannot be based on rhetoric alone and must include legally binding limitations.
- A profound suspicion of U.S. ballistic missile defense (BMD) plans surfaced in every meeting. Many Chinese interlocutors mentioned the U.S. decision to deploy additional X-band radars in the Pacific, and all were skeptical of U.S. declarations that such capabilities are not targeted at China and will not threaten China's nuclear strike capability.
 - Chinese interlocutors could not or would not disaggregate between national and theater missile defense capabilities.
 - One participant expressed particular concern about the recommendations for expanded ground-based midcourse interceptors in the recent U.S. National Academy of Sciences ballistic missile defense study.
 - None of the Chinese interlocutors was able or willing to recommend any actions that the United States could take to reassure China of the limitations of U.S. BMD.
 - By comparison, there was little discussion of the conventional prompt global strike as a potential threat to China's strategic deterrent.
- The wide disparity in the U.S. and Chinese strategic force size informed most discussions. Most Chinese thought the United States should not be worried about China's nuclear developments because U.S. forces are significantly more numerous and sophisticated.
 - This linkage directly informed Chinese understanding of "strategic stability," which for most interlocutors was equated with nuclear parity and mutually assured destruction – both viewed as Cold War legacies that are inappropriate for China.

⁴⁶ The trip report is included as an appendix in the working group's final report, *Nuclear Weapons and U.S. China Relations: A Way Forward*, 38–40.

- Many Chinese interlocutors attempted to tie strategic stability in the nuclear dimension to other areas such as maritime, space, and cyberspace. Others said that strategic stability can be attained through the development of mutual trust across the entirety of U.S.-China relations.
- Most Chinese interlocutors acknowledged that China’s nuclear force is modernizing, but noted that U.S. systems are much more advanced. They also argued that modernization is natural for a growing country. All demurred when asked if China’s nuclear numbers are growing; some declared that China will not build a large nuclear force, nor seek parity with the United States. Others declared that China will not accept a ceiling on its nuclear force structure.
 - Chinese participants were willing to acknowledge that China’s nuclear modernization is driven primarily by a need to balance U.S. forces; many noted that China is listed as a potential target in the most recent *Nuclear Posture Review Report*.
 - Many Chinese interlocutors argued that China faces a threat environment much more severe than that faced by the United States. They said that the United States does not have a major nuclear threat to its homeland, but China is surrounded by nuclear armed states such as Russia, India, and Pakistan. One participant noted that India’s nuclear forces and the U.S.-India civil nuclear cooperation program (the implementation of which has freed up India’s domestic uranium for potential military use) are a partial driver of Chinese modernization.
 - One participant said he preferred to refer to Chinese modernization goals as “limited retaliation” rather than “minimum deterrence” because deterrence cannot be measured.
- Chinese interlocutors recognized U.S. concerns about China’s nuclear no-first-use (NFU) pledge. One even hinted that there may be some conditionality to it, especially when it comes to conventional attacks that seek to deny China a retaliatory capability. Yet one Chinese participant said that U.S. experts and officials should not push China to clarify its position on NFU, as they may not like what they hear.
- Many Chinese participants were critical of U.S. extended deterrence commitments in East Asia, describing them as destabilizing. One Chinese participant argued there are few bilateral issues that could bring the two countries to the brink of war, but once third-party actors are introduced, then the possibility greatly increases. Another went further in claiming that the United States was behind recent Japanese assertiveness in the Senkaku/Diaoyuti dispute.

These views were expressed by a broad group of Chinese experts outside of government, some of whom have participated in the Beijing and Hawaii Track 2s described earlier in this paper. The Americans do not know what if any guidance the Chinese participants received from official channels prior to their meetings with the Americans. PONI (which is directed by Clark Murdock at CSIS) is a program with a robust webpage (a link off the CSIS webpage), non-resident senior advisors (currently Linton Brooks, Franklin Miller, Robert Joseph, Rich Wagner, and James Tegnolia), and a CSIS Fellow who serves as an adviser (Becca Smith).⁴⁷ The Chinese doubtless know that despite the relatively junior status of participants in PONI, they have over the years (as a result of how the project is structured) had the rare opportunity to present their views directly to senior American officers and officials in the nuclear policy and strategy arena.

E. Insights from the United States-Chinese Glossary of Nuclear Security Terms

The Committee on International Security and Arms Control (CISAC) of the American National Academies of Science has conducted Track 2 security dialogues on nuclear issues with Russia (since 1981), China (since 1988), and India (since 1999). Although these dialogues normally are framed as dealing with technical issues in arms control and disarmament, they also offer opportunities to address nuclear strategy and policy issues.

In 2006, CISAC and its counterpart organization in China⁴⁸ began a joint project to produce an unclassified glossary of nuclear security terms. Both sides formed working groups that first communicated with one another by e-mail and then held joint meetings in Beijing in September 2006 and in March 2007.⁴⁹ After several more rounds of e-mail consultations, a draft text was reviewed in the United States and China by experts,⁵⁰

⁴⁷ See “Project on Nuclear Issues,” Center for Strategic and International Studies, <http://csis.org/program/project-nuclear-issues>.

⁴⁸ CISAC’s Chinese counterpart is the Chinese Scientists Group on Arms Control (CSGAC) of the Chinese People’s Association for Peace and Disarmament. Academician Hu Side heads the Chinese group.

⁴⁹ The American working group was chaired by Ming-Shih Lu (retired from Brookhaven National Laboratory) and included Richard L. Garwin, Raymond Jeanloz, Alastair Iain Johnston, and Alvin W. Trivelpiece. The working group was staffed by Benjamin J. Rusek (a senior program associate at CISAC) and Anne Harrington (then CISAC’s director—Anne Harrington later would enter the Obama administration in October 2010 as the Deputy Administration for Defense Nonproliferation of the National Nuclear Security Enterprise. The Chinese working group was chaired by Tian Dongfeng of the China Academy of Engineering Physics, and included Hu Side, Zhu Jiaheng, Shi Jianbin, Wu Jun, Xu Xiaoling, He Yidan, Kang Chunmei, Sun Xiangli, and Tian Jingmei.

⁵⁰ The American reviewers included Ping Lee, Stephanie Lieggi, James Mulvenon, Brad Roberts, Chris Twomey, and Jing-dong Yuan.

finalized at a final joint working group meeting in November 2007, and published in 2008 in Washington and Beijing.

The glossary includes about 1,000 terms, which (as described by the working group chairs) are “intended to reduce the likelihood of misunderstanding, and to remove barriers to progress in exchanges and diplomatic, cooperative, or other activities where unambiguous understanding is essential.”⁵¹

The glossary is quite technical in nature, as befits its authors, although many of the definitions go beyond technical terminology in explaining terms such as “deterrence” or “nuclear first strike.” The definitions typically are a sentence or so long, which does not do justice to the concepts themselves. This is why discussion of the definitions has been useful.

It is unclear what the status of this glossary is in China, or what it may have done to clear up Chinese misperceptions of American nuclear policy, strategy, and intent. However, Chinese interlocutors have told Americans on several occasions that the glossary experience (plus terminological definition sessions at the DTRA-sponsored Track 1.5/2 meetings) paved the way for China’s willingness to take the lead in chairing a similar working group at the annual P5⁵² talks that have been underway since 2009, in preparation for the 2015 Non-Proliferation Treaty (NPT) Review Conference. The P5 working group is developing a glossary of nuclear terms agreed to by the United States, Britain, France, the Russian Federation, and China. The latest P5 meeting took place Geneva in April 2013.⁵³

F. General Yao’s Views

Yao Yunzhu is a Major General in the People’s Liberation Army (PLA) and has become one of China’s leading spokespersons in the West on nuclear policy and strategy issues. Her English is excellent; she demonstrates considerable expertise in her prolific writings on the subject, has studied in the United States on several occasions, and is chosen by her superiors to appear on panels at major international conferences that discuss nuclear policy and strategy issues. She also has been a frequent participant in many of the Beijing and Hawaii nuclear Track 2s described earlier in this paper.

⁵¹ Ming-Shih Lu and Dongfeng Tian, Preface, *English-Chinese Chinese-English Nuclear Security Glossary* (2008).

⁵² Here the P5 refers to the five states that the Nuclear Non-Proliferation Treaty (NPT) of 1970 recognizes as nuclear-weapons states. They all had tested nuclear weapons prior to entry into force of the NPT. Coincidentally, the P5 also are the permanent members of the U.N. Security Council.

⁵³ See Fact Sheet, “Fourth P5 Conference: On the Way to the 2015 NPT Review Conference” (Washington, DC: Office of the Spokesperson, U.S. Department of State, April 19, 2013).

According to biographical material available on the Internet, Yao Yunzhu was born in 1954 and joined the PLA in 1970. She received an MA from the PLA's School of Oriental and African Studies, and was the first woman to receive a PhD in Military Science from the PLA's Academy of Military Science. In 1995, Yao was a visiting scholar at the University of London's School of Oriental and African Studies, and in 1999, she was an Eisenhower Exchange Fellow in the United States. A decade later, she also was a fellow at Harvard's Weatherhead Center Institute for International Affairs. Her studies in the West have focused on American military policy and strategy.

Yao Yunzhu appears to have first received wide media attention when Henry Kissinger praised her for a thoughtful response she made to a question he posed to her at an international conference.⁵⁴ This was picked up by the media and received wide circulation. At Shangri-La dialogues and other security conferences where she is not a panelist, she is known for directing hard questions to senior American officials, which then are reported in the media. She is a confident, articulate speaker. In China's intricate world of interconnected official and party roles, Yao also has advanced on the party side. She was elected a member of China's National People's Congress in 2002 (serving through 2008), and in 2007 was elected as a member of the 17th National Party Congress of the Chinese Communist Party (CCP).

Occasionally, she has been one of the first PLA officers willing to publicly discuss sensitive security topics (such as China's Anti-Satellite (ASAT) Missile test in 2007). Yao reportedly was a member of the working group that drafted China's most recent defense white paper that was released on April 16, 2013. Yao published (presumably with the blessing, if not at the direction of, her superiors) a brief essay one week later, explaining (and replying to Western criticisms) of the white paper.⁵⁵

Although she began her career as an enlisted woman and reportedly had staff assignments before turning to writing and teaching, Yao has made her career as a senior researcher in the Department of War Studies at the Academy of Military Sciences. She currently serves as director of the Center for China-American relations at the AMS. She writes for American as well as Chinese military publications. In 2008, she authored a chapter on "Chinese Nuclear Policy and the Future of Minimum Deterrence" for a volume edited by Christopher P. Twomey at the Naval Postgraduate School,⁵⁶ and in 2010 an article on "China's Perspective on Nuclear Deterrence" that was published by

⁵⁴ See Peter J. Brown, "Omaha Greets an 'Unusual Visitor' from China," *Asia Times* (October 15, 2009).

⁵⁵ Yao Yunzhu, "China Will Not Change Its Nuclear Policy," *China-US Focus* (April 22, 2013).

⁵⁶ Christopher P. Twomey, ed., *Perspectives on Sino-American Strategic Nuclear Issues* (New York, NY: Palgrave Macmillan, 2008).

one of the U.S. Air University's professional journals.⁵⁷ General Yao also participates in official Chinese delegations to the Pentagon on nuclear issues.

General Yao's writings and comments made in public conferences have been selected for highlighting in this paper, not because they are unique among Chinese scholars or the most insightful strategically, but because Yao is a frequent participant in nuclear Track 2s and appears to have been chosen by the Chinese to be the senior military spokesman to explain the perspective China wants to convey to Americans on nuclear policy and strategy matters. The following are the main themes that emerge from her commentary.⁵⁸

- Although China strongly opposed giving credence to the concept of nuclear deterrence for many years because of its derogatory connotation (blackmail of China by stronger powers), the logic of deterrence always has played a major role in Chinese military and nuclear thinking.
- Chinese leaders consider nuclear weapons to be a political instrument to be employed at the level of grand strategy, not a winning tool for military operations.
- The cornerstone of China's nuclear policy is renunciation of the first-use option. It is in the interest of the West to alleviate China's concerns, not to seek to discredit China's no-first-use policy. A more constructive approach for the West would be to establish a multilateral agreement among all of the nuclear weapons states to adopt no first use, and to consider limiting or even prohibiting the use of nuclear weapons in a legally binding international agreement.
- China's nuclear policy in the twenty-first century can be explained in terms of six themes: (1) strategic deterrence, rather than operational and tactical utility; (2) retaliatory rather than denial deterrence; (3) central rather than extended deterrence; (4) general rather than immediate deterrence; (5) defensive rather than offensive deterrence; and (6) minimum rather than limited or maximum deterrence.
- China has a retaliatory second-strike strategy. China maintains its nuclear arsenal at a minimum level where it is lean and effective. To keep it effective

⁵⁷ Yao Yunzhu, "China's Perspective on Nuclear Deterrence," *Air and Space Power Journal* (Maxwell AFB, AL: Air University, Spring 2010).
<http://www.airpower.au.af.mil/airchronicles/apj/apj19/spr10/yao.htm>.

⁵⁸ These views are taken from Yao's writings in the 2008 volume edited by Twomey, the spring 2010 issue of *Air and Space Power Journal*, the April 2013 essay published in *China-US Focus*, and the transcript of the deterrence panel she appeared on at the 2013 Carnegie International Nuclear Policy Conference.

and assure credibility after receiving a nuclear first strike, China has to modernize its nuclear force to keep it survivable, penetrating, and secure.

- Deterrence works through the uncertainty in cost/gain calculations as well as through the certainty that prospective costs will outweigh prospective gains. China depends more on uncertainty for its deterrence than any other nuclear weapons state. A certain amount of opaqueness is an integral part of China's no-first-use policy.
- Comparing China's approach to deterrence to that of the United States, China places more emphasis on taking advantage of uncertainty, while the United States relies more on a show of force.
- Since the crisis-ridden years of the 1960s and 1970s, China's security environment has improved steadily. China's perspective on nuclear deterrence has not changed very much since the start of the twenty-first century.
- Strategic stability between the United States and Russia retains its Cold War orientation of stability achieved on a symmetric basis. China tries to have strategic stability with the United States on a highly asymmetric basis.
- China does not seek parity with the nuclear superpowers, even when they are downsizing, and will not seek nuclear superiority.
- China neither extends a nuclear umbrella to others, nor accepts one from others. China neither will deploy nuclear weapons on foreign territory, nor allow foreign nuclear weapons into China.
- As the most powerful conventional military power in the world, the United States should be able to denuclearize its extended deterrent.

4. Summary and Conclusions

This paper does not seek to provide a comprehensive picture of China's nuclear weapons programs, strategies, policies or activities. Rather, it aims to give a window into what might be learned through the informal Track 1.5/2 process, and even there, it does not attempt to analyze all of the Track 1.5/2s where the Chinese participate in security discussions but provides context on their views on nuclear policy and strategy. It does not, for instance, discuss many of the meetings organized by the CSIS Pacific Forum, Monterrey Institute, Wilton Park, Stanford's Northeast Asia Security Dialogue (NEASD), various working groups of the Conference for Security Cooperation in the Asia Pacific (CSCAP), or the Northeast Asia Cooperation Dialogue (NEACD) run by the University of California, San Diego.

However, even the more selective focus of this paper is sufficient to draw several conclusions. First and foremost, one should not have exaggerated expectations of what can be learned from Track 1.5/2s about Chinese nuclear matters. Track 1.5/2 meetings can add to, clarify, and provide nuance to what can be learned from other sources. The talks with China may reinforce, provide context to, and perhaps even sharpen an understanding of China's motivations, roles and missions, doctrine, strategy, posture, readiness, and/or future directions for its nuclear forces, and help shape China's understanding of related evolutions in U.S. policy, but they do so over time with continuous engagement. What the Chinese choose to conceal, they can. And it takes time to determine whether what Americans hear in Track 1.5/2 sessions reflects changes about to take place in official policy, or simply are personal views.

Second, it is important to appreciate that Track 1.5/2s are important for many reasons other than answering outstanding questions about China's nuclear posture and intentions. Track 1.5/2s with China can result in common lexicons. They allow each side to explain its anxieties about the other's positions, and to try to identify and mitigate misperceptions. When talks in official channels (Track 1) falter, Track 2 (more accurately, Track 1.5) provides an informal means of keeping security dialogues going until political circumstances permit resumption of Track 1. Track 1.5/2 meetings also are places to try out innovative ideas, float trial balloons, and test arguments, with more freedom than in Track 1. They provide future generations of experts and officials an opportunity to hear their counterparts face-to-face, without the publicity (and media attention) attendant with panel discussions at large conferences. They provide context for

American students of Chinese military strategy to better understand the state of the public debate in China (and while this is not necessarily the same as understanding impending changes in Chinese policy and strategy, it does provide a foundation for anticipating the possible directions and range of such change). And when conducted in Beijing, they offer opportunities on the margins of the talks for Americans to visit Chinese officials, where those opportunities would not otherwise be available. It is worth noting that when held in Hawaii, there appears to be a more open discussion among the somewhat less senior participants.

Finally, although this paper presents a picture of Track 1.5/2 processes, which may appear orderly on the surface, in reality the number of Track 1.5/2s has grown so large, managed by different institutions with their own needs and biases, and taking place across such a diverse set of issues, that it is difficult to track issues from one Track 1.5/2 to another. There is no forum for sharing best practices or lessons learned among the multiple Tracks 1.5/2s, and no good mechanisms for building on past discussions or on converting even modest ideas into actual government actions.

It would be useful to establish an unofficial forum that permits American participants in Track 1.5/2 meetings with the Chinese to meet with one another periodically to hold informal discussions on their Track 1.5/2 experiences as they plan for the next set of meetings. Such a forum also could serve as the venue for informal discussions with U.S. government officials responsible for China matters, and as a means of maintaining corporate memory of what ideas translate into government actions.

Appendix A

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Appendix B

Abbreviations

ASCO	Advanced Systems and Concepts Office (DTRA)
ASEAN	Association of Southeast Asia Nations
AMS	Chinese Academy of Military Science
ARF	ASEAN Regional Forum
BMD	Ballistic Missile Defense
CACDA	China Arms Control and Disarmament Association
CAEP	China Academy of Engineering Physics
CASS	China Academy of Social Science
CCP	Chinese Communist Party
CFISS	China Foundation for International Strategic Studies
CICIR	China Institute of Contemporary International Relations
CIIS	China Institute of International Studies
CISAC	Committee on International Security and Arms Control
CONUS	Continental United States
CPGS	Conventional Prompt Global Strike
CSBM	Confidence and Security Building Measure
CSCAP	Conference for Security Cooperation in Asia Pacific
CSGAC	Chinese Scientists Group for Arms Control
CSIS	Center for Strategic and International Studies
CTBT	Comprehensive Test Ban Treaty
DOD	U.S. Department of Defense
DOE	U.S. Department of Energy
DRM	Dialogue and Research Monitor
DTRA	Defense Threat Reduction Agency
FFRDC	Federally Funded Research and Development Center
FY	Fiscal Year
IAPCM	Beijing Institute of Applied Physics and Computational Mathematics
IISS	Institute for International Security Studies
ISS	Institute for Strategic Studies
NAS	American National Academy of Sciences
NATO	North Atlantic Treaty Organization
NDAA	National Defense Authorization Act

NDU	China's National Defense University
NEACD	Northeast Asia Cooperation Dialogue (University of California San Diego)
NEASD	Northeast Asia Security Dialogue (Stanford University)
NGO	Non-Governmental Organization
NPT	Non-Proliferation Treaty
NSA	National Security Agency
NTI	Nuclear Threat Initiative
PACOM	U.S. Pacific Command
PLA	People's Liberation Army
PONI	Project on Nuclear Issues
PRC	People's Republic of China
SIIS	Shanghai Institute of International Studies
START	Strategic Arms Reduction Treaty
STRATCOM	U.S. Strategic Command
TTCSP	Think Tanks and Civil Societies Program (University of Pennsylvania)
U.N.	United Nations
U.S.	United States
WMD	Weapons of Mass Destruction

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