

**Strengthening the International Non-Nuclear Non-Proliferation Regime:
Promoting a Successful NPT Review Conference in 2010**

Beijing, China, 20-21 November 2009

**Jointly Sponsored by
Chinese People's Association for Peace and Disarmament
Pugwash Conferences on Science and World Affairs
Institute of Applied Physics and Computational Mathematics**

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With the May 2010 NPT Review Conference some six months away, Pugwash convened jointly with CPAPD and IAPCM a major conference to discuss possible strategies and modes of cooperation that can reinvigorate and strengthen the international non-proliferation regime. Pugwash expresses its appreciation to its Chinese host institutions for their support of the conference, and to the Ford Foundation (Beijing office) for a grant covering travel expenses for international participants. As is standard practice with reports of Pugwash meetings, this summary is the sole responsibility of the author and is not intended to represent the views of other participants.

Introduction

The conference was held just a few days after a state visit by US President Barack Obama to the People's Republic of China, during which the President and Chinese Premier Hu Jintao committed their governments to working together for a successful NPT Review Conference in May 2010. More generally, a new climate of international cooperation would seem to promise a far more positive outcome of the 2010 Review Conference than was true in 2005.

Nonetheless, there are substantial challenges facing all three pillars – disarmament, non-proliferation, and peaceful uses of nuclear energy - of the international nuclear non-proliferation regime. In nuclear disarmament, despite substantial reductions in nuclear weapons in the last two decades, some 23,000 nuclear weapons continue to be held by nine nuclear weapons states. The possible emergence of new nuclear weapons states and the proliferation of fissile material to non-state groups remain fundamental challenges to the world community. And, renewed interest in many countries around the world in the peaceful uses of nuclear power highlights the urgent need to strengthen the NPT Treaty and other international mechanisms for ensuring no diversion of civilian nuclear efforts and materials to military purposes.

From a Chinese perspective, major issues that need to be addressed are (1) continued US and Russian reductions in their nuclear weapons, which account for 95% of all existing nuclear weapons; (2) strengthened mechanisms for preventing the proliferation of nuclear weapons and nuclear materials; (3) renewed efforts to create and expand nuclear weapons-free zones; and (4) improved mechanisms for dealing with violations of and withdrawal from the NPT Treaty.

Major nuclear disarmament and non-proliferation challenges

Compared to the most recent NPT Review Conference held in 2005, there is a much improved atmosphere for nuclear disarmament and non-proliferation affairs that holds out the promise of a more successful outcome for the 2010 NPT Review Conference.

Yet, much remains to be done to successfully manage both the issues and the expectations that will accompany the 180 states parties to the NPT who convene in New York next May, along with thousands of NGO and civil society representatives and the world press.

For its part, as host of this meeting, it has been 17 years since the PRC acceded to the NPT Treaty, and China can play a valuable role in promoting a successful Review Conference and contributing to reducing the threat posed by nuclear weapons. China's long-established policies of maintaining a minimum deterrent nuclear force, of not getting caught up in escalatory arms races, of promoting unconditional NFU policies, and of declaring itself opposed to missile defense and military space activities, could help the PRC contribute to strengthened disarmament and non-proliferation policies .

One important ingredient, however, is the lack an agreed integrated plan, which would set timetables and specific goals for reducing nuclear weapons, and which would also would address the important issue of conventional weapons in a non-nuclear weapons world.

The only specified plan along these lines has been that of UN Secretary General Ban ki-Moon, issued 28 October 2008, that set out five major inter-related areas for moving forward. Important components of his plan include the negotiation of a nuclear weapons convention; new initiatives undertaken by the UN Security Council; constructive actions by non-NPT nuclear weapons states; renewed efforts to bring the CTBT into force and to commence earnest discussions of the FMCT; expanding IAEA safeguards provisions; accountability and transparency measures, especially on nuclear weapons stockpiles; and complementary measures on CW and BW and conventional weapons technologies (especially on missile defense and space weapons) that will provide greater stability which in turn will facilitate the reduction and elimination of nuclear weapons. Too often, an active role for the United Nations is overlooked in the many plans being promulgated for moving towards a nuclear weapons-free world.

To facilitate progress, policymakers should be looking at inter-locking arrangements (domestic, national, regional, international) that can facilitate solutions on the three pillars of nuclear disarmament, non-proliferation, and the peaceful uses of nuclear energy. An interesting example of this is Brazil, which has both a national constitution prohibiting development of nuclear weapons and an important 1991 bilateral agreement with Argentina on the peaceful uses of nuclear energy, which then created a joint organization (ABACC) that helps ensure joint benefits on civilian nuclear technologies while providing transparency that neither country seeks to use its nuclear capabilities for military purposes.

How to measure NPT success, and how to promote it

Exactly what will constitute a successful NPT Review Conference in May 2010? Certainly the adoption of a final consensus document would do much to repair the uncertainty left at the conclusion of the 2005 Review Conference on the ability of nuclear and non-nuclear weapons states to work together. Pre-conference preparation in highlighting specific goals can help pave the way for conference agreement, similar to the efforts of President Bill Clinton on the CTBT issue prior to 1995 Review Conference. And the courageous action of South Africa in unilaterally giving up its nuclear weapons capability in the early 1990s helped create a positive political atmosphere in 1995 that was conducive to overall success of the conference. The always difficult issue of the Middle East and calls for it to adopt a regional zone free of nuclear weapons (or weapons of mass destruction) will require much advance discussion and work prior to the conference. Finally, the benefits of a talented management team for organizing the Review Conference and orchestrating multi-lateral diplomacy can not be underestimated.

Looking ahead to next year, appropriate issues for the 2010 conference will be guaranteed supplies of nuclear fuel for civilian purposes, internationalization of the nuclear fuel cycle, and the Middle East. Regarding the latter, the existence of a nuclear weapons capability in one country – Israel – has in the past spurred others (Iraq, Libya, possibly Syria) to acquire their own, and could stimulate similar actions in the future. It would be beneficial if the 2010 Review Conference proposed convening a conference (by 2011) that would study the modalities of a nuclear weapons-free Middle East, with a designated coordinator to ensure appropriate follow-up and implementation. The three depository governments of the NPT Treaty (US, Russia, UK) could have a special role to play in promoting a conference on the Middle East.

Then there is the important role of civil society, which has the advantage of not being constrained by narrowly defined national security interests that often handicap the policies of national governments. Bipartisan support from respected policy figures, innovative research and proposals from think tanks, the facilitating role of organizations like Pugwash, activist NGOs that stimulate grass-roots public interest in nuclear weapons issues, and international commissions and campaigns on nuclear weapons, all have important roles to play. Given limited funding sources for NGOs and civil society, it becomes important to forge alliances in order to avoid duplication of effort. In an increasingly inter-dependent world, NGOs must explicitly demonstrate the connections

between issues (e.g., civilian nuclear power, proliferation risks, climate change, and opportunity costs for a wide range of human security benefits) to better mobilize public opinion.

Perhaps most important of all, a categorical commitment by all nuclear weapons states to the ultimate elimination of nuclear weapons, similar to but even more forceful than that expressed by President Barack Obama in his Prague speech of April 2009, would be very beneficial in devaluing the utility of nuclear weapons in the eyes of the international community.

Other issues raised included the possibility of integrating nuclear security issues as a possible 4th pillar of the NPT, which most participants thought better considered on its own merits, as with the April 2010 summit conference being convened by Pres. Obama.

Then, of course, there are the difficult issues of the DPRK and Iran, very different in their own ways, yet each constituting a major challenge to the viability of the non-proliferation regime. Over and above the separately tailored solutions needed to resolve both issues, what would be very useful are actions that demonstrate the diminishing utility of nuclear weapons as indicators of power and prestige. This will require leadership from both the P-5 original nuclear weapons-states as well as non-NPT nuclear weapons powers. Also important will be the examples set by major non-nuclear weapons-states such as Brazil, Indonesia, South Africa, and as important international actors that did not need nuclear weapons. Most imperative in this effort will be new international and regional security arrangements, and accountability for actions that contravene international law, that both reduce the salience of nuclear weapons and increase the opprobrium of those seeking to acquire them.

CTBT entry into force and the FMCT

One of the cornerstones of a viable non-proliferation regime will be the successful entry into force of the Comprehensive Test Ban Treaty, which was signed and opened for ratification in 1996. To date, 182 countries have signed the treaty, and 151 have ratified it. Yet entry into force will not occur until all 44 of the so-called Annex II countries (those with nuclear weapons or having significant nuclear capabilities) have ratified, and nine of these have yet to do so (US, China, Israel, India, Pakistan, DPRK, Iran, Indonesia, and Egypt). The next two to three years are likely to be key for this to happen, otherwise the CTBT might be lost forever.

The significance of the CTBT as an important disarmament and non-proliferation measure is that (1) it serves the security interests of all countries; (2) is a critical step towards a nuclear weapons-free world; and (3) has a demonstrably effective verification system. National implementation measures for the CTBT (e.g., criminalizing nuclear weapons activities) would further help create an overall architecture for moving toward a nuclear weapons-free world. And, there is the added benefit that the verification

technologies already in place for the International Monitoring System of the CTBT (including seismology, hydroacoustics, infrasound, and radionuclide monitoring,) also have important civilian applications and benefits (e.g., tsunami warning systems).

To be sure, major difficulties confront the entry into force of the CTBT, even in the United States where Pres. Obama has pledged to make US ratification a top priority. His administration is already overloaded with revitalizing the US economy, instituting major health care reform, reversing a deteriorating situation in Afghanistan, and having to decide the fate of Guantanamo detainees. All of these issues are being played out in an atmosphere of divisive partisanship that makes it very difficult for Republican House or Senate members to support the President. On the CTBT, he will need at least seven Republican Senate votes, and it is not at all certain he will succeed. His advisors are currently taking the position that postponing a vote when success is not certain is preferable to going down to defeat, even if that means waiting until well after the 2010 Review Conference in May.

Given the uncertainty in the US, it was suggested that the oft heard strategy of waiting for the US to ratify first and then working on the other eight needed countries may not make sense. Especially if the US vote is delayed further by the 2010 midterm elections in November 2010, perhaps the focus should be on getting at least some of the other Annex II countries to ratify and set an example.

It was noted that one of these countries, India, opposed the CTBT in the 1990s because of perceived discriminatory treatment, a worsening regional security situation, and concerns over verification capabilities. The situation has changed in the past 15 years, so that the chances of India ratifying the CTBT are good, in the event that both the US and China ratify. Similar to India, Pakistan is observing a self-imposed testing moratorium, but anti-US sentiment is such that many in Pakistan are suspicious that the US would use the CTBT to roll back Pakistan's nuclear program.

As for China, it was thought that if a country like the PRC, with modest numbers of nuclear weapons and a more limited testing history than the US, can feel comfortable about its warhead reliability under a CTBT, then this would send a clear message to the US that it too can have a similar confidence. This point was made to illustrate the benefits of China taking a more pro-active role in promoting ideas for the 2010 Review Conference and other aspects of the non-proliferation regime.

The sensitive subject of provisional entry into force (without all 44 states needed to ratify) was discussed, with opinion being that now is not the time to focus on this option; that all effort should be devoted to getting all the nine remaining Annex II countries to sign and ratify so as to ensure universal adherence to the CTBT.

Technical issues related to the CTBT were also discussed, such as warhead safety and reliability; technical capabilities of the IMS; and the effect of clandestine testing (decoupling of tests to evade detection). The body of technical knowledge built up since the CTBT was concluded, and since the treaty was voted down by the US Senate in 1999,

is such that high confidence exists across all three areas, as attested to by the National Academy of Sciences and the influential JASON group in the US.

A presentation and brief discussion of the Fissile Material Cut-off Treaty (FMCT) noted the following points: (1) scope of what should be covered (existing or future stocks; definition of fissile materials subject to FMCT; naval HEU); (2) verification of no production of FM, no diversion of FM; maintaining weapon design secrecy; (3) linkages with other issues.

Moving towards deep reductions among all nuclear weapons-states

Of equal importance to the CTBT is the need for all members of the NPT to feel that the original nuclear weapons states, the P-5, are moving honestly ahead to fulfill their Article VI obligations for nuclear disarmament. Certainly the prospects seem good for a follow-on START treaty between the US and Russia, but the question is immediately raised, what next? How do the other original nuclear weapons states (NWS) join the process, to say nothing of needed participation in multi-lateral arms control by the non-NPT nuclear powers (Israel, India and Pakistan)? At a minimum, the other P-5 should join discussions of their future involvement in arms reductions, and they might also become more involved in US-Russian negotiating and verification efforts to build up a body of knowledge on such issues. One way of doing so, of course, would be through the FMCT process in the CD.

A summary of the situation in the United States noted the importance of the Wall Street Journal articles by Mssrs. Shultz, Kissinger, Nunn and Perry and Pres. Obama's Prague speech and his focus on START, CTBT, missile defense, and the FMCT. Progress thus far has proven more difficult than envisioned, however, because of an overloaded policy agenda and partisan domestic politics.

Other perspectives noted that the US and Russia need to go much further in their weapons reductions, well below the 1,700 limit that was already the lower limit of START, and that reductions need to be made in stockpiled as well as deployed weapons. Another important component of moving toward a nuclear weapons-free world would be adherence by all the NWS to unconditional no first use policies. Missile defense efforts should be abandoned, according to some, as these only increase pressures for modernizing offensive nuclear systems. Also, disarmament needs to take advantage of new advances in verification technologies that facilitate the dismantling and destruction of warheads and fissile material.

A review of the UK situation noted that Britain has reduced its arsenal by 75% since the height of the Cold War, now relying on four Trident ballistic missile submarines with 160 warheads. Official UK policy considers this a 'minimum deterrent', though there has never been a full public debate about what exactly should constitute a minimum deterrent in today's security environment. The current government of Prime Minister Gordon Brown is touting the UK as a disarmament laboratory, but it was thought that this

is a bit “out of synch” with plans for a full modernization of the Trident follow-on deterrent. Some of the variations for modernization being discussed do include reducing the number of subs from four to three (and giving up always having at least one boat at sea) and and/or reducing the number of missile tubes per boat from 16 to 12. Other options include reducing the alert response time for being able to launch the missiles or even going to a cruise missile option. There were differences of opinion on whether the UK has excess warheads in reserve, above the 160 operational warheads it is believed to have deployed with Trident.

As for China, one participant stressed the importance of jump-starting the disarmament process across a wide range of policy initiatives, from the CTBT and FMCT to reductions down to 1,000 total warheads for the US and Russia, to stronger Negative Security Assurances, the de-alerting of operational forces, limitations on missile defenses, and prohibitions on the use of conventional weapons against nuclear forces. The PRC, it was asserted, has fashioned a nuclear force and doctrine that is closer to the ideal of a nuclear weapon-free world than any other nuclear weapon state. Precisely because it has a ‘minimum deterrent’, China is seriously concerned about the impact of missile defenses on strategic stability. It was noted that the PRC will join the US-Russian disarmament process at the appropriate time, as it did the CTBT process. It was also floated that China might perhaps participate as an observer in US-Russian negotiations and the implementation and verification of reductions, if invited to do so, in order to gain experience and knowledge about nuclear arms reductions. A concluding point was that nuclear disarmament is more than just numerical reductions; it’s really finding ways to reduce overall nuclear capability through fundamental changes in doctrine, through de-alerting, and through reductions in the value placed on nuclear weapons in military doctrine and national security policy.

General discussion noted that China, the UK, and France should not be allowed to continually point to the need for further US and Russian weapons reductions as an excuse not to join the process of reducing the salience of nuclear weapons. These countries need to indicate when, and at what US and Russian force levels, they will be ready to join a multilateral reduction process. Following up a point made about China, the US and Russia could help transparency and confidence-building by allowing the other NWS to participate in the verification process of US and Russian reductions. Obstacles to a full-fledged multilateral disarmament process will continue to exist, of course, from the interdependence of US-UK Trident cooperation, to conservative opposition to arms control in the US, to vested interests in all the NWS that still equate nuclear weapons with supreme national and military interests.

The importance of having greater transparency by the NWS was also noted, precisely because of issues such as the uncertainty over the total number of UK warheads; skepticism was expressed that no reserve warheads exist above the total of 160 deployed. It should be remembered that this type of transparency was almost achieved by Presidents Clinton and Yeltsin in Helsinki in October 1997 when they neared agreement on START negotiations that would focus on warheads.

Promoting nuclear weapons-free zones

A review of existing nuclear weapons-free zones (NWFZ) noted that a total of five regional and one national (Mongolia) NWFZ, plus three physical geographic zones (Antarctic, seabed, and outer space) cover more than half of the countries (114) in the world, but less than 20% of the world's population.

In seeking ways to expand such zones, which currently are largely found in the southern hemisphere, there needs to be a tighter relationship between them and regional security systems. The former do not happen in a vacuum, but are part of a larger process whereby states have mechanisms and organizations by which to discuss issues and peacefully resolve disputes. Future zones of course will have to deal with the more difficult cases of regions where nuclear weapons already exist or are being sought.

Participants focused on the most politically sensitive region, the Middle East, and discussed reviving security negotiations such as ACRS in order to help facilitate acceptance of a Middle East NWFZ. There was also discussion of thinking more creatively about what constitutes Middle East (from the Maghreb through Somalia to Iran). Do new regional realities create new opportunities for making progress on a Middle East zone free of WMD or nuclear weapons? Should we think sub-regionally, as in creating a Persian Gulf NWFZ?

At a minimum, efforts should proceed in parallel on both new security architectures and the requirements for implementing a nuclear weapon or WMD-free zone; it is not enough to wait for one or the other to come into being. It is also important to look for new initiatives (an Arctic NWFZ) that might give impetus to broadening the coverage of NWFZs.

Looking ahead to the 2010 Review Conference, how can we ensure that political disagreements over a Middle East WMD-FZ don't derail overall consensus on moving ahead on disarmament and non-proliferation? In addition to political support for convening a special conference and coordinator for Middle East WMD issues in 2011, many Arab states will want clarity from Israel on their nuclear weapons posture, while urging adherence to the NPT. Another view held that Iran will stress the universality of the NPT, and will be reluctant to create obstacles to coming to a consensual agreement.

CBMs for verifying reductions and non-diversion of fissile material

Technologies continue to develop that can effectively monitor the dismantlement and destruction of nuclear warheads and prevent the proliferation of fissile materials and other sensitive nuclear and weapons materials. Countries should begin to work more closely on issues such as chain of custody and authentication of warheads in order to increase transparency in the disarmament process (such as the UK-Norway-Vertic project), given the need to protect sensitive information during the removal and destruction of warheads.

Participants also discussed organizational means for reducing proliferation risks, such as the Asian Mutually Assured Dependence (A-MAD) concept that lays out a menu of multinational and international consortia that could operate enrichment facilities, and where top priority in accessing nuclear fuel would be given to those countries who forego having enrichment and reprocessing facilities on their soil. An additional point is that a country like Japan can help take the lead in enhancing best practices in nuclear security.

More broadly, there is a history of CBMs being applied across a wide range of applications (information sharing, constraint measures, verification). Since for now only the US and Russia are involved in actual reductions, there is a need for greater involvement of the other nuclear weapons-states to both increase transparency of intentions and pave the way for their active involvement in reducing stockpiles. In particular, having other NWS replicate the US-Russian nuclear weapons lab discussions would be extremely useful. In addition, the US and Russia could offer their widespread experience in the destruction and dismantling of weapons to other countries.

Summary discussion

There will be a tension between seeking the maximum positive outcome of the 2010 Review Conference, especially given the disappointing results of the 2005 conference, with current political realities that might argue for more modest expectations. Unlike 2005, US leadership at the Review Conference will be important, yet the Obama administration is beset with a complex policy agenda and handicapped by a Congress that is deeply partisan. Thus, expectations for what his administration can achieve in the near term have already been lowered; perhaps START ratification before May 2010, but CTBT ratification perhaps not until after the November 2010 midterm elections, and in any event, securing Senate approval will be difficult.

Other political realities, in the Middle East and Northeast Asia especially, will also temper expectations for that the NPT Review Conference can achieve.

The point was made that there is time to begin now to build political will in advance of the Review Conference, especially as this relates to balancing concerns of the NWS and NNWS as they relate to implementation of articles IV and VI. Other important markers will be:

- (1) progress in resolving the DPRK and Iran issues;
- (2) issues of nuclear material security;
- (3) discussions of bringing non-NPT countries into the fold;
- (4) strengthening the NPT by closing loopholes/lacunae (e.g., enforcement mechanisms);
- (5) expand authority of the IAEA;
- (6) affirm entry-into-force of the CTBT;
- (7) revitalize the CD as a viable negotiating forum.

Mention was made of a recent report by Deepti Chouby of the Carnegie Endowment for International Peace, *Restoring the NPT: Essential Steps for 2010* (November 2010), in which she set out what she considers realistic goals that could be achieved at the review conference, including:

- (1) reaffirm the basic validity of the NPT, through explication of its basic security benefits;
- (2) reiterate the “unequivocal undertaking,” either unilaterally by the nuclear weapons states or through a coordinated P-5 statement, and update the 13 steps to accord with current realities;
- (3) reaffirm the principle of a basic right to nuclear energy for states that meet their obligations, but also acknowledge new realities (economic as well as political) that make attractive more serious consideration of multi-lateral and international cooperation on managing fuel cycles;
- (4) enhance transparency of the disarmament process by the NWS (the 12th of the 13 steps) and establish regular reporting by all states of their disarmament and non-proliferation activities;
- (5) NWFZ: seek the art of the possible, including US ratification of the Pelindaba and Roratonga treaties, and Russia rescinding its positive security assurance in the Treaty of Tashkent to facilitate a central Asia NWFZ, and seek constructive ways forward on Egypt’s call for a 2011 Middle East NWFZ conference and the appointment of a special coordinator;
- (6) encourage universalizing adherence to the Additional Protocol and work with countries like Brazil, Egypt and others on their special concerns;
- (7) continue the process of seeking to institutionalize consequences for NPT violators (Art. X) and streamlining the process of instituting penalties and sanctions;
- (8) engage non-NPT members to the maximum extent possible, inviting them as observers to the Review Conference and maximizing their compliance with non-proliferation norms, even if outside the NPT itself.

Many participants agreed on the desirability of devising a comprehensive plan for disarmament, with timelines for might be achieved and benchmarks to gauge progress. Countries should take their disarmament responsibilities seriously, and not hide behind excuses of having to wait for other developments before they can fully join in. It is also important that there be no discriminatory treatment in providing access to peaceful nuclear technologies. Separate cases, such as the DPRK and Iran, have to be handled differently. For those nuclear weapons states outside the NPT, it is important to work with them on all three NPT pillars, but not to give them NPT legitimacy.

In concluding remarks, there was broad agreement on creating a road map, of a comprehensive plan for disarmament and non-proliferation. And there was agreement on the setting of realistic expectations for the NPT Review Conference, as long as this is not

seen as the P-5 trying to set the agenda for all states. In working with non-NPT states, it would be a major setback to the non-proliferation regime if the benefits accorded to India under the US-India agreement were accorded to other countries. What is ultimately important is that a final consensus document agreed to at the 2010 Review Conference be seen as applying even-handed and non-discriminatory treatment to all states parties.