



Pugwash

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Editor:

Jeffrey Boutwell

Senior Program Coordinator:

Sandy Ionno Butcher

Design and Layout:

Anne Read

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Pugwash Secretary General Paolo Cotta-Ramusino and President Jayantha Dhanapala meet with White House Science Advisor John Holdren, April 2009

To the Pugwash Community

The NPT, Nuclear Weapons and the Middle East

The international system faces many formidable challenges in the years ahead, but perhaps none more pressing than the incendiary mix of regional violence, religious extremism and international terrorism—combined with the specter of nuclear and WMD proliferation—to be found in the Middle East and Persian Gulf region.

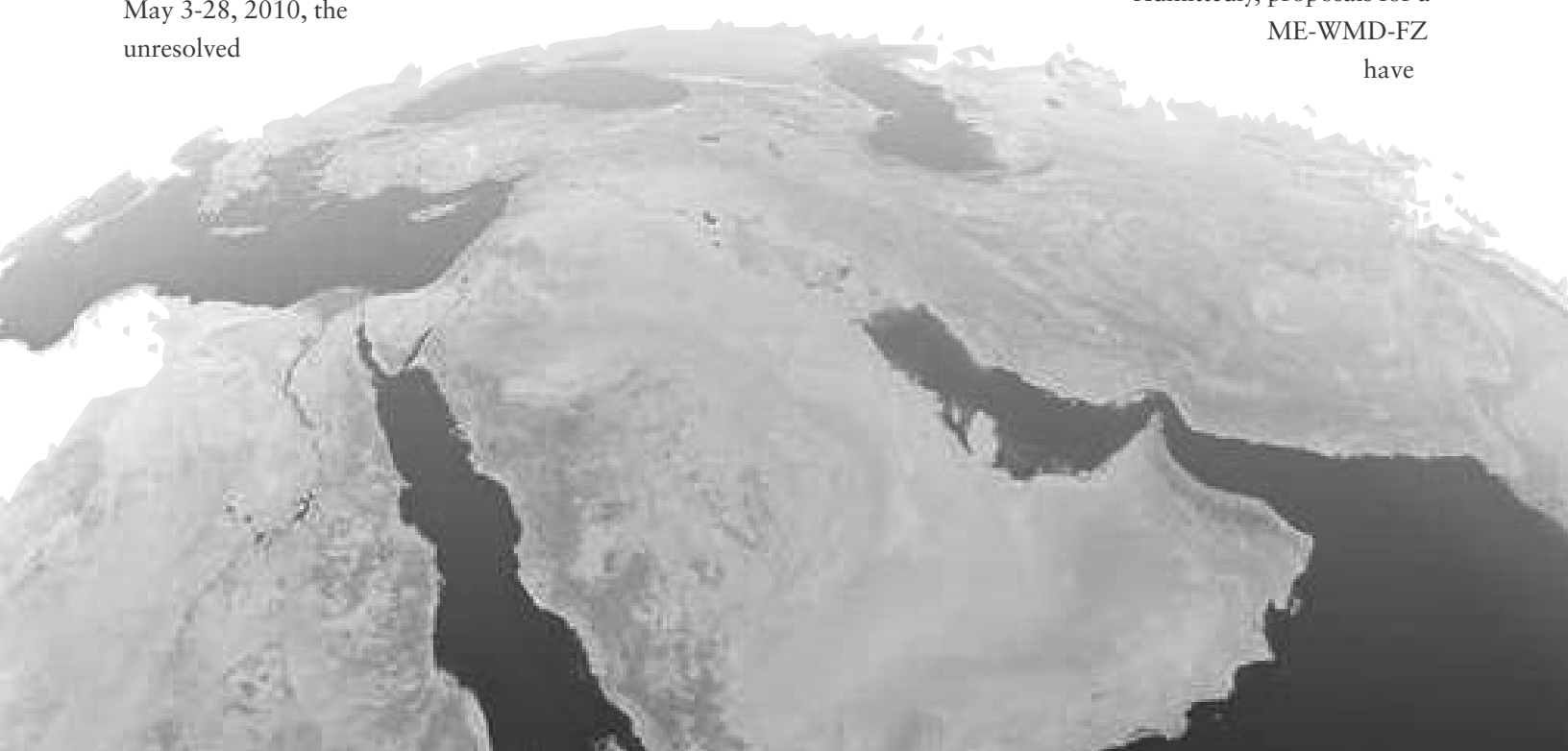
Continuing problems in the region, including the failure to reach an Israeli-Palestinian peace agreement, continued Israeli-Arab hostility, Sunni-Shi'a schisms within the Islamic world, and uncertainty over the regional ambitions of Iran, would themselves be dangerous enough to global security. Added to this volatile mix, of course, are the existence of nuclear, biological and chemical weapons capabilities in the region, plus concerns with the nuclear ambitions of Iran and possibly other, new proliferators, as well as the interest expressed by many states in the Middle East and Persian Gulf for acquiring civilian nuclear technologies that could all too easily provide break-out capabilities for nuclear weapons.

As was evident during the month-long NPT Review Conference held in New York from May 3-28, 2010, the unresolved

issue of Middle East weapons of mass destruction (WMD) capabilities, in a region beset by continued violence and deep-seated hatreds, could threaten the entire nuclear non-proliferation regime and international efforts to ensure that WMD capabilities will not be acquired by those willing to use them. At the NPT Review Conference, it took a sustained effort, especially by the US government, to convince Egypt and the Arab states to support a compromise on the issue of a Middle East-WMD-Free Zone (ME-WMD-FZ) that kept intact international support for the NPT regime.

However, the clock is ticking on whether that support can be maintained. The Final Document of the NPT Review Conference called for the appointment of a special Facilitator, followed by an international conference in 2012, in order to make progress on the ME-WMD-FZ issue. There is thus a two to three year window for demonstrating results, above all to the Arab states who in 1995 agreed to support an indefinite extension of the NPT in return for efforts – supported by the US, UK, and Russia – to make progress toward the goal of a Middle East free of nuclear, biological and chemical weapons.

Admittedly, proposals for a
ME-WMD-FZ
have



been on the agenda for decades, with little chance of realization as long as there was no comprehensive resolution of deep-seated conflicts in the region. Nonetheless, anxieties about Iran's nuclear program and understandable Arab frustration at having agreed in 1995 to an NPT bargain that has had no payoff for them in 15 years, has put the ME-WMD-FZ back on the bargaining table.

In the coming months, Pugwash will be actively involved in supporting efforts to discuss the feasibility of a Middle East free of WMD, through involvement with the special Facilitator appointed by the UN Secretary General and the convening of an international conference in 2012. The Pugwash community can help this process by rigorously evaluating and discussing the components of a ME-WMD-FZ to see how various norms and practices might be introduced into the region so as to strengthen WMD non-proliferation and transparency of activities. Even if a formal treaty is not politically feasible in the near term because of the non-resolution of outstanding conflicts, every effort should be made see what policy tools are available to reduce as much as possible the risk of catastrophic conflict in the region using WMD, or the possible terrorist use of such weapons anywhere in the world.

Acknowledgments

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This is my final issue as Editor of the *Pugwash Newsletter*, as I am moving on to new pursuits after almost 30 years spent with Pugwash, as both Executive Director and previously as Associate Executive Officer at the American Academy of Arts and Sciences. I have enjoyed tremendously my association and friendship with countless members of the international Pugwash community, meeting in so many venues and under so many different circumstances around the world. I will always treasure the insights and wisdom I gained from working with them on fundamental issues of conflict, peace, and the future of humanity.

JEFFREY BOUTWELL, *Editor*

Pugwash and the 2010 NPT Review Conference

May 2010

Milan Document on Nuclear Disarmament and Non-Proliferation

29 January 2010

Below are some considerations coming out of a meeting in Milan organized by Pugwash and the University of Milan (Universita' degli Studi di Milano), 29 January 2010, with an eye to the upcoming 2010 NPT Review Conference.

The meeting involved more than 40 participants from 13 countries, including former defense and foreign ministers, current and former international disarmament diplomats and other scientific and policy experts.

While this document represents fairly the discussions held, it is the sole responsibility of Pugwash Secretary General Paolo Cotta-Ramusino, Professor of Physics, Universita' degli Studi di Milano and Pugwash President Jayantha Dhanapala, former UN Under-Secretary-General for Disarmament Affairs.

The upcoming Non Proliferation Treaty (NPT) Review Conference (May 2010, New York) will examine the treaty implementation and, in particular, the status of the three NPT basic pillars (disarmament, non proliferation and access to nuclear energy for peaceful uses by NPT members). It is an important opportunity to call the world's attention to the serious risks associated with nuclear weapons, and the ultimate need to eliminate such weapons and to work towards a legally-binding document (such as a convention) banning the possession of such weapons. *Work for such a legally binding document*

should begin soon and hopefully yield some concrete proposals before the 2015 NPT Review Conference.

In the upcoming 2010 NPT Review Conference it will be extremely important, in order to prevent decay and breakdown of the world-wide nuclear non-proliferation regime, to show that concrete progress is being made towards that final goal of eliminating nuclear weapons, and to reassure the world's public opinion that such progress will be strongly sustained in the future. In particular, in order to support concrete steps in the direction of nuclear disarmament, the 13 practical steps approved by the 2000 NPT Review Conference should be restated by the 2010 NPT Review Conference with the necessary updates.

Reinforce the (political and legal) commitments to nuclear disarmament. Drastically decrease the numbers of weapons

1. The present number of intact nuclear weapons (reportedly over 23000) should be drastically reduced. The largest weapons reductions should of course be made by the two major nuclear weapon States (US and Russia)

that possess about 95% of the world's combined nuclear arsenal. An effective ladder for scaling down the number of nuclear weapons of the most nuclear-armed nations should be clearly defined. As a first step, Russia and the US are expected to bring to successful



Iran President Ahmadenijad at the NPT Review Conference.



The German Delegation.



Wa'el Al'Assad of the Arab League and other NPT Delegates.



Jayantha Dhanapala addresses the NPT Review Conference.

conclusion, before the NPT Review Conference, their on-going negotiations, aimed at developing a successor treaty to their recently expired START 1 agreement.

2. Reductions of longer-range and shorter-range nuclear weapons should be vigorously pursued in nuclear negotiations. As in the past, unilateral actions can significantly contribute to this process. Decommissioned nuclear weapons should be dismantled and not only

stored separately from delivery systems. Fissile material from dismantled weapons should be made accessible to the IAEA for inspection. Effective procedures for verifying weapon dismantlement should be actively pursued.

3. Active promotion of nuclear disarmament is the responsibility of all the members of NPT (in fact of all countries, even if nuclear-weapons states have a special

responsibility in this regard). This implies that states with relatively smaller arsenals should do their share of the disarmament work. Also non-nuclear weapons countries hosting nuclear weapons belonging to other countries should send these weapons back to the owner and request their dismantlement. Finally all non-nuclear weapons states should pursue the elimination of nuclear weapons from their territories, not even allowing them in transit, by promoting nuclear-weapons-free zones. Extending nuclear-weapons-free zones can be seen as a complementary avenue to achieving a nuclear-weapons-free world.

Reinforce the political and legal commitments to nuclear disarmament: decrease the military role and the political influence of nuclear arsenals

4. The stated aim of nuclear weapons possession by nuclear-weapons states should be no more than to deter the use of nuclear weapons by others. There is absolutely no need to keep any nuclear weapon at a high alert status. A high alert status entails a serious risk of a nuclear launch by mistake even now, 20 years after the end of the cold war.
5. Concepts like extended deterrence (meant in various ways as nuclear defense against nonnuclear attacks or the planning of the use of nuclear weapons to compensate conventional inferiority or to protect allies against possible nuclear or even chemical or biological weapons attacks) have shown to be of very limited value during the cold war and should be phased out. They should be replaced by a generalized no-first use posture by states possessing nuclear weapons. Moreover no-first use policies should be made even more explicit by extending security guarantees to states that do not possess nuclear weapons. Pending the complete elimination of nuclear weapons, the latter should be guaranteed that they will never be attacked with nuclear weapons.
6. Extended deterrence in no way should require the stationing of nuclear weapons on other countries' territories. An international norm should be developed, forbidding such extraterritorial deployments. European countries have a clear role to play in this respect and should take an active approach to fulfill their own responsibilities.

7. Possession of nuclear weapons is *not* an instrument for enhancing regional or global influence or political and economic leverage. This statement should be clearly understood and stated explicitly whenever useful. This notion, contrary to some conventional wisdom of the past, applies specifically to the major nuclear weapons states, where the possession of nuclear weapons is manifestly not of any help in dealing with military, political or economic crises.
8. Both nuclear and non-nuclear weapon states should nevertheless exercise maximum restraint in the development of military applications of science and technology, such as ballistic missile defense, that could create potentially destabilizing situations, both in the regional and global context, thus complicating the task of reducing the reliance on nuclear weapons.
9. Nuclear-weapons states should develop internal structures, agencies, legislation, budget allocations and the like, to reduce the role of nuclear weapons in defense doctrines, and eventually to eliminate such weapons from national arsenals. "Modernization" and other forms of technical improvement and expansion of capabilities of existing arsenals should be prevented in all possible ways.

Promote nuclear disarmament: involve the states that are not parties to the NPT

10. States that are not parties to the NPT should be induced in all possible ways to eliminate their nuclear weapons and join the NPT. In the meantime they should be encouraged to support the general goals of the NPT by taking concrete steps in the direction of reducing their nuclear arsenals, preventing nuclear proliferation, opening up their nuclear facilities to IAEA inspections and monitoring, respecting nuclear weapons-free-zones, and joining all possible other arms control treaties such as the CWC, BWC, CTBT, etc.

Promote nuclear disarmament: make progress in the establishment of a zone free of weapons of mass destruction in the Middle East (ME) and particularly of a nuclearweapons-free zone

11. The idea of establishing a zone free of weapons of mass destruction in the Middle East was an integral part of the success of the 1995 Review and Extension Conference. It has also been at various times and with

various characterizations pushed forward by the main Middle Eastern states. It is important that the 2010 NPT Review Conference states unequivocally that concrete progress should be made in the creation of such a zone. Consultations should be organized involving all the Middle Eastern states aimed at defining an “agenda of progress” for a ME zone free of weapons of mass destruction. A UN-sponsored international conference should be called for, to discuss the implementation of the ME zone free of weapons of mass destruction and particularly of a nuclear-weaponsfree zone. The UN could appoint a coordinator to help the process of establishing a zone free of weapons of mass destructions and particularly a nuclear-weapons-free zone in the Middle East.

Promote nuclear disarmament: ensure CTBT entry into force, push forward the FMCT

12. The CTBT should be signed and ratified immediately by all those states that are bound by other treaties or agreements not to test nuclear weapons or that declared that they do not intend to test in the future. To do otherwise would just be a continuation of the practice of holding arms control treaties hostage to political pressures, irrespective of their actual value and merit. If some states continue to block entry into force of the CTBT, they will have to justify that position to the international community. Permanently ending nuclear testing for all and hence impeding new nuclear weapons developments and stopping the production of fissile materials for weapons purposes are all important elements supporting the goal of global nuclear disarmament. Regardless of the timing of the entry into force of the CTBT, the CTBT Organization in Vienna, should be strengthened.

Prevent nuclear proliferation: strengthen the IAEA and the international monitoring & control regime

13. In light of the present spread of nuclear activities for civilian purposes, it is clearly in the collective interest that all such activities be properly monitored and controlled by the competent international organization, namely the IAEA. The IAEA itself should be strengthened both in its workforce and in its ability to operate. The (model) additional protocol should be considered as the new norm, in terms of the relations between the agency and the member states. All

members of the NPT should be encouraged to sign and ratify the (model) additional protocol.

14. Work should be pursued to develop improved proliferation-resistant technologies in all stages of the nuclear power production process.
15. Nuclear fuel production should be soon internationalized, without prejudice to the inalienable right recognized in Article IV of the treaty. International consortiums for enriching uranium and for the production of nuclear fuel should be encouraged and the monitoring of these international consortiums should be firmly in the hands of the IAEA. Phasing-out of reprocessing in favor of interim storage should also be encouraged¹.
16. Efforts should be made to improve the monitoring capabilities of the IAEA beyond the additional protocol. A critical analysis of the problems, gaps and shortcomings of the monitoring systems should be made in the spirit of objective and constructive criticism.

Prevent nuclear proliferation. Strengthen and harmonize national legislation to prevent illicit traffic of nuclear material and of technical devices that could be used in building nuclear weapons

17. The effectiveness of resolution 1540 should be thoroughly examined. Countries should be encouraged to include in their legislation provisions to control, intercept and punish the illicit transfer of nuclear material (particularly of fissile material). The legislation should guarantee the possibility of intercepting illicit traffic of materials and technologies that could be used to manufacture nuclear weapons or nuclear explosive devices. Dual-use materials and technologies should attract particular attention, and their transfer should be regulated by national legislation and international agreements. Because the availability of Highly Enriched Uranium (HEU) provides the most ‘easy’ avenue for manufacturing nuclear explosive devices by possible non-state actors, countries should be encouraged and helped to progressively phase out reactors using HEU and to replace them with reactors using Low Enriched Uranium (LEU) fuel. The huge existing stocks of HEU, as well as the large amounts that will be obtained from nuclear disarmament, should be down-blended as quickly and as completely as possible to LEU (to be then employed as fuel for energy-producing nuclear reactors).

Ensure the right of all NPT member-states to develop nuclear activities for civilian purposes

18. The right of NPT parties to develop, research and use nuclear energy for peaceful purposes is recognized under the treaty and should not be subject to constraints or limitations. This right should be exercised in accordance with the obligations prescribed by the treaty.
19. Assistance to civilian nuclear programs of member states should be guaranteed to all parties to the NPT without prejudice, while enforcing all the applicable control and monitoring activities.

20. Assisting the development of national nuclear energy programs of NPT member states should include also advising member states of all the risks and problems involved with civilian nuclear programs. Reference should be made to problems related with economic sustainability, with environmental concerns (including all the serious problems related to waste disposal), with the control and the training of technicians, with the organization of emergency responses in case of serious technical problems. This should happen of course without prejudice to the inalienable right guaranteed by article IV of the NPT.

¹Currently the world is dealing inadequately with 250 tons of already separated plutonium and the 70 tons of weapon-grade plutonium that Russia and U.S. have declared excess. Reprocessing costs more than interim storage and complicates radioactive waste management. For a non-nuclear state, it can provide a civilian pretext for creating a nuclear-weapon option.

8 T H N P T R E V I E W C O N F E R E N C E

Pugwash Consultation on the 2010 NPT Review Conference

8 May 2010, New York City

Promoting a Successful NPT Review Conference

Pugwash convened a private consultation involving 20 current and former diplomats, UN officials and leading NGO experts from 15 countries for a general exchange of views on issues related to the current Review Conference. The meeting was chaired by Pugwash President Jayantha Dhanapala and Pugwash Secretary General Paolo Cotta-Ramusino. Each participant took part in his or her personal capacity, under Pugwash/Chatham House rules. The purpose of the meeting was to contribute a creative atmosphere in which items related to the NPT Review Conference could be discussed in a more holistic way among key participants, drawing upon the extensive experience of former practitioners.

This report highlights areas which might serve as a catalyst for a successful conclusion of the Review Conference. As with all Pugwash meetings, there was no attempt to achieve consensus and this report is the rapporteur's summary of some of the main topics raised. No viewpoint expressed in this report should be attributed to any specific participant. Rather we encourage further discussion among delegates, officials, and the NGO community on some of the topics raised during the course of the consultation.

General

The more relaxed atmosphere at this Review Conference as compared to the 2005 Review Conference was welcomed. There was a recognition on all sides of the window of opportunity provided by President Obama's repeated commitment to create conditions for a nuclear weapons free world. The urgency of seeking ways to operationalize that commitment equally was underscored.

Areas of discussion focused on five categories: transparency, verification, doctrines, disarmament and procedural issues.

Transparency

Transparency is primarily a declaratory confidence building exercise. It can contribute to an environment more conducive to more predictable cooperative security. The dramatic US announcement of the numbers of its nuclear arsenal has set the stage at this Review Conference for further discussion of transparency.

- Transparency may provide a useful theme to explore in the Review Conference and could be important to discuss in the final document.

- Transparency issues must be addressed not only in terms of disarmament, but also in the areas of non-proliferation and peaceful uses of nuclear energy.
- It might be useful to probe the question and further elucidate *why* it is important to seek transparency. There also is a need to better define transparency and to set consistent benchmarks, possibly in the context of a future Pugwash meeting.
- The P5 should be encouraged to promote transparency in their statements and positions.

Verification

Verification is legally binding. It plays a role in providing greater confidence in the serious intent of transparency declarations.

- Verification issues are relevant to all three pillars of the NPT, and there was a recognition on all sides of the need to have agreed shared understandings of verification systems and norms.
- There was hope that there will be a sharing with the rest of the Conference of information provided by the UK-Norway experience, as this might encourage future initiatives by other countries.
- It was proposed to extend the role of the IAEA to include verifying disarmament.
- It might prove a positive step to establish a Track 2 or Track 1½ process for verification and inspection of the New START treaty. This could involve influential non-governmental public figures, an idea Pugwash has raised with former European defense and foreign affairs ministers, based on the model of parallel public inspections conducted in the years of the implementation of the INF Treaty (the Intermediate and Shorter Range nuclear Forces Treaty).

Doctrines

Nuclear doctrines are important to consider, since the issue of possession of nuclear weapons arises from nuclear deterrence doctrines.

- The way in which discussion of doctrine is handled in the Review Conference final document will be very important. Coming at a time when NATO's Strategic Concept review is underway, it may send an important message that might help inform the NATO deliberations.
- Despite differing opinions on the US Nuclear Posture Review, the NPR can serve as a point of departure for

discussions on this issue at the Review Conference. Some concern was expressed that the NPR did not explicitly state that the 'sole' purpose of nuclear weapons is to deter other nuclear weapons. It was noted, however, that for the first time the US has set this as a goal.

- There was some discussion of the continued role of extended deterrence, and recognition of the pressures this can create for non-nuclear weapons states which are not part of a nuclear alliance or protected by the 'nuclear umbrella.' Some felt this damaged the principle of equal security for all.
- The continuing impact of the US-India nuclear deal was explored. There was some concern expressed that the Nuclear Suppliers Group and others did not express criticism in a strong and timely manner. Assurance that there won't be more deals like this in the future will be important. There was hope that there might be discussion in Main Committees 2 and perhaps 3 on this issue. Without singling out the US-India deal, there was a hope that there will be a block on future deals. Without such action, non-nuclear weapons states concerns may intensify in the future.

Disarmament

The importance of the need for further disarmament progress was underscored by many and there was an expectation that disarmament will be discussed in detail, as at every Review Conference.

- It was suggested that Main Committee 1 might put the various offers/displays of recent related measures that have been taken on disarmament into a form that is readily accessible. For example, it might include summary of efforts taken to close production facilities, unilateral and bilateral reductions, and highlighting areas that states already intend to do in future.
- There was some discussion about the P5 statement to 'carry on' the commitments of 1995 and 2000, which some interpret as being a weaker statement than a firm recommitment. Others pointed out the *intent* of the phrase was to show a very active commitment.
- There was dialogue on the pros and cons of the question of setting deadlines for both short and long-term disarmament goals. Setting such a timeline might indeed prove an historic breakthrough for this Review Conference. However it was also noted that setting timelines, as in the case of the Chemical Weapons Convention, might be problematic if those benchmarks are not met, even if

the party is acting in good faith. It was noted that even with the CWC, however, this process has been beneficial in drawing focus to the issue due to the missed deadline.

- The importance of not allowing deadlines to become an impediment to consensus was noted.
- If there is not the ability for a general consensus on a timeline, perhaps the P5 might issue a collective statement about a timeline for disarmament.
- At the very least there needs to be a collective appeal for progress by 2015, though there is a need to better define what this might mean.
- There was discussion on setting a possible timeline for work on or conclusion of a nuclear weapons convention.
- It was noted that the question of further reductions of tactical or non-strategic nuclear weapons is an area in which progress might have a profound impact on other issues.
- In this context, establishing a principle that nuclear weapons should not be based on foreign soil would be important progress. Removal of US nuclear weapons from Europe to US territory, following the post-Soviet example, is seen as a potentially very powerful step in terms of both disarmament and doctrinal issues.
- There was recognition of the US decision to submit protocols of two Nuclear Weapons Free Zones to the US Senate. Other nuclear weapons states could be encouraged to take similar action. Such a step, worthy in and of itself, may in turn help reinforce prospects for the US process.
- There will be a separate Pugwash consultation on the Middle East on May 15, but the importance of defining some criteria for success on the Middle East resolution was noted. Setting an agenda for progress, hopefully including some timelines, will be needed to overcome the negative impact of the lack of progress in this area.
- The possibility of extending the INF treaty to other parts of the world was noted.
- The need for progress on the package of initiatives at the Conference on Disarmament was highlighted. These include the Fissile Material Cut-off Treaty, the nuclear weapons convention, negative security assurances and preventing an arms race in outer space.

Procedural/structural issues

The positive role and personal involvement of the UN Secretary General was widely appreciated. The President of the Conference also has taken welcome steps to try to ensure coordination amongst the committees, and that Main Committees are coordinating their work plans.

- Strengthening the institutional mechanism for linkage between the three pillars might prove a useful exercise, for example in possibly identifying a more holistic action plan for the next five years that might be adopted as a consensus document. Even if this were only one agreed paragraph it might prove very useful.
- The example of the mechanism used in 1985 might prove useful, in which the chair called meetings two times per week, to coordinate information exchange, and to provide the chapeau for the final document, and importantly to identify early-on possible choke points.
- Support was expressed for the innovative idea for a common template for Main Committee and subcommittee reports, each reviewing the past and highlighting future oriented action plans.
- There was an idea however that perhaps in the 4th week the President of the Conference might have a special session in which delegates could be given the opportunity to address this issue.
- The importance of ongoing discussions on disarmament was emphasized, via the Conference on Disarmament, the First Committee, and other fora.
- The idea for a President's Group, to carry forward progress from the Review Conference in the 5 year interval, was discussed.

In general our discussions were guided by a sense of common purpose in the urgency of seizing the opportunities made possible by many recent developments. A failure for the Review Conference to live up to this potential could have profound, widespread, and damaging impact. There was goodwill expressed in our discussions for exploring in creative settings options for progress and for injecting such perspectives into the Review Conference processes. Pugwash acknowledged with deep thanks the participation of such a knowledgeable and committed group of people during this busy time.

This rapporteur's report was prepared by Sandra Ionno Butcher, and is the sole responsibility of the rapporteur.

Pugwash Consultation on the 2010 NPT Review Conference

15 May 2010, New York City

Nuclear Weapons and WMD in the Middle East

On 15 May 2010, Pugwash convened a private consultation in New York City, involving 16 current and former diplomats, UN officials and leading NGO experts from 10 countries for a general exchange of views on issues related to the current NPT Review Conference¹. The meeting was chaired by Pugwash President Jayantha Dhanapala and Pugwash Secretary General Paolo Cotta-Ramusino. Each participant took part in his or her personal capacity, under the Pugwash/Chatham House rule.

The purpose of this meeting was to explore options for promoting progress on the 1995 Middle East resolution. It was recognized that given the lack of forward movement on this issue in the past 15 years, it is imperative that this Review Conference should make proposals for further actions beyond a general statement of goodwill. The situation of regional insecurity is serious. Pugwash maintains that the presence of any weapons of mass destruction poses a grave risk to all countries, and it is in that spirit of seeking to ensure greater stability and security for all that this meeting was convened.

As with all Pugwash meetings, there was no attempt to achieve consensus, and this report is the rapporteur's² summary of some of the main topics raised. No viewpoint expressed in this report should be attributed to any specific participant. Rather we encourage further discussion among delegates, officials, and the expert NGO community on some of the topics raised during the course of the consultation. While discussions included a range of topics involving well-known challenges among regional players, and without discounting the seriousness of these issues, this report focuses on discussions related to possible forward movement on the 1995 Middle East resolution.

Proposal for progress on the Middle East resolution

The proposal under discussion (see attachment 1) links the role of a UN-appointed special representative with ideas for ongoing conferences and Track II meetings on the 1995 Middle East resolution. It takes the main elements of

several earlier proposals, and seeks to package them in such a way that allows the maximum flexibility needed to have some real forward movement to break the current inertia. It has been pointed out very clearly that in order to have progress on the situation of WMD in the Middle East, all states in the Middle East should be engaged, with no exception.

Need for creative approach to dialogue

Many felt there is a need for a mechanism for ongoing discussions. Some felt that limiting these discussions, for example, to a single conference, would have only limited ability to address the range of issues involved.

Ideas were discussed about seeing the movement of the Middle East as two trains moving on two parallel tracks. One 'track' might explore broader regional security issues and another might explore the establishment of a WMD free zone. There would be interaction among the two processes, and a hope that they would both reach their destinations simultaneously as the end stages will require that serious steps have been taken in both areas.

The above two 'tracks,' combined with the engagement of an interrelated unofficial (so-called Track 2) process, might create the needed flexibility to ensure all parties can engage in the process, even in the earliest phases. There may be need for some exploration with all parties to ensure that this would be suitably flexible. Some with experience in the ACRS process felt that de-linking to an extent the regional security issues from the arms control process may help avoid some of the pitfalls encountered.

The majority of discussion focused on the NWFZ (or WMDFZ) strand. Some felt this could start with a preparatory committee, discussing the terms of reference (participation, goals, intermediate steps, timing). As mentioned, many felt it would be important to ensure that the conference is not a one-time event, but that it might for example start in 2011 and proceed annually, with the participation of the P5 (and recognizing the special role of the NPT depository states: Russia, the UK and the US). Alternately, the process could be organized as series of separate events, and ad hoc topical meetings.

Scope

A balance will have to be found whether it is better to discuss a nuclear weapons free zone or a weapons of mass destruction free zone. It was recognized that any agreement in addition to limiting/eliminating the weapons themselves, should provide long-term security assurances to the parties. The point has been made, with the strong support of the participants, that any process or negotiation for a WMD (NW) free zone in the Middle East should be all inclusive and not discriminate against any country.

Given the historical experience of Egypt and others joining the NPT, while Israel stayed outside the regime, there is sensitivity to the pressure some in the region may feel to having to sign and ratify some of the treaties and measures that currently address these issues (Comprehensive nuclear Test Ban Treaty, Chemical Weapons Convention, Biological Weapons Convention, Additional Protocol, etc). Some felt strongly that the primary way to address the problem is for Israel to join the NPT as a non-nuclear weapon state. Others pointed out the need to extend all the WMD agreements to the entire region. It was pointed out that there is a common norm against the use of WMD in the region, and there is a hope for codifying this non-use policy. A composite document summarizing this commonality might prove an interesting exercise. Some felt strongly that issues of compliance would have to be handled outside this strand, under the IAEA or other organizations.

Role of a possible UN-appointed special representative (or advisor) and standing committee

To ensure implementation of these ideas proceeds in a timely manner, there was a discussion of the need for a special representative or advisor, appointed by the UN Secretary General, who would work with an advisory body or standing committee which has authority stemming from the UN Secretary General. It was recognized that the UN umbrella would enable maximal participation. This person must assume neutrality, and have credibility, and trust. Engaging a special representative (or advisor) also might allow for more expert study and review of issues than was possible, for example, during the ACRS experience.

The progress reports, done at least every six months, would be a mechanism for feedback into the appropriate channels, including the NPT processes.

Benefits of including Track 2 (or Track 1.5)

Most highlighted the strong advantage of the overlap between the Track 1 (official) and 2 (unofficial) initiatives, having some discussions at the official level and some at a mixed level, or "Track 1.5." This allows people to sit together without the requirements of the official level. This is especially useful for those issues that are not quite ready for Track 1 negotiations, but which can be discussed in a Track 1.5 setting. With a careful and creative approach these Track 1.5 discussions could be more inclusive than might otherwise be possible, and leading NGOs could be called upon to help prepare the meetings. As one participant said, "Everything in the Middle East starts somehow with a secret meeting."

In addition, the Track 2 (or 1.5) setting may help to facilitate interaction between the two strands. This potential for cross-fertilization of ideas could help to address some institutional limitations in various governmental structures, where for example, the arms control desks and the regional desks have very little interaction. The lessons of the Cold War were highlighted, in which Track 2 meetings among scientists promoted arms control measures and other related incremental steps which helped build confidence that made possible the later bold and decisive steps toward peace.

Realistic expectations

Most felt this comprehensive approach toward progress on the ME resolution has great potential, and encouraged further discussion and dialogue about this idea among delegates and governments. It was recognized that patience may be needed, as this has been a long process in other regions that have successfully established nuclear weapons free zones. The need for goodwill among all parties is significant, since if states want to tie up this process, they obviously will be able to do so in this framework as well. However, if all parties approach this in the right frame of mind, it has the potential to get some forward movement in the region, which is sorely lacking at present.

While not all participants were unanimously supportive of the ideas discussed, there was nevertheless unanimous appreciation of the willingness of all sides to engage in open-minded interactions on these urgent and important issues. Pugwash acknowledged with deep appreciation the creative input and involvement of the participants, who

spent several hours contributing their expertise and insights into this discussion despite the many demands on their time.

Attachment 1: Draft Pugwash Proposal, revised 15 May (based on above discussions)

Making Concrete Steps Towards a Middle-East Free of Nuclear Weapons and Other Weapons of Mass Destruction: Role of a Un-Nominated Representative (or Advisor)

Several countries at different times proposed the creation in the Middle East of a zone free of nuclear weapons and other weapons of mass destruction. The first initiative in this sense was the initiative of Iran in 1974, followed by Egypt, promoting a nuclear weapons free zone. The Mubarak Initiative of 1990 expanded the concept to a WMD free zone. In the 1995 NPT Review Conference a specific Middle East resolution was approved and the final document of the 2000 NPT Review Conference referred to this resolution. All countries of the region have supported resolutions in the UN General Assembly on the creation of a zone free of weapons of mass destructions. The concept was explored in subsequent studies by the UN and UNIDIR. However up to now there has been no progress in the direction of creating such a zone.

It is recommended that, after the NPT Review Conference, a Special Representative (or Advisor) be appointed by the UN Secretary General [as recommended by the NPT Review Conference of States Parties], to be supported by a [committee, advisory board, commission], for the problem of establishing a zone free of nuclear weapons and other weapons of mass destruction in the Middle East with the mandate of:

- 1 Defining the framework and understanding the conditions under which concrete progress and practical steps towards the establishment of such a zone could be made.
- 2 Proposing the sequence of the necessary steps towards the establishment of such a zone.
- 2 Proposing a series of meetings and conferences aimed at defining precisely such practical steps. In this the Special Representative (or Advisor) could also facilitate a synergy between the so called Track-2 discussions and subsequent official negotiations.

4 Preparing a larger UN Conference aimed at defining the general negotiating pattern for the establishment of a Middle Eastern zone free of Weapons of Mass Destruction and of Nuclear Weapons in particular

5 Facilitating negotiations aimed at implementing any interim practical steps.

The Special Representative (or Advisor) should establish a *Committee (alternatives: Advisory Board, Commission)* composed of officials *and* experts from Middle Eastern countries and relevant international organizations, such as the League of Arab States and the African Union besides the UN, and also from the P5 and other countries as appropriate. This Committee should work in a cooperative way to help the Special Representative (or Advisor) in performing the above defined mandate. The Special Representative (or Advisor) should also be in position to organize specific technical meetings, possibly with the assistance of such international organization as the IAEA, the CTBTO, the OPCW, etc.

The Special Representative (or Advisor) and the Committee should in particular understand the concerns and collect the suggestions of individual States and concerned institutions from the civil societies of Middle Eastern countries. It is recommended that all countries that participate in the Committee facilitate the entry of the members of the Committee in their territory for the said purpose of understanding the concerns and collect the suggestions of each individual State.

The Special Representative (or Advisor) shall submit at least every six months progress reports on his or her activities, on the work of the Committee and on the relevant findings to the UN Secretary General. These reports should be made available to the interested States and the NPT Preparatory Committees. The Special Representative (or Advisor) shall be assisted by a small, but highly qualified staff.

For the financial support of the activity of the Special Representative (or Advisor) and the Committee, it is proposed the establishment of a UN administered fund supported by member states, on a voluntary basis.

¹ This meeting follows an earlier meeting, held 5 May 2010. The report of that meeting is available online at www.pugwash.org.

² This rapporteur's report was written by Sandra Ionno Butcher.

*Statement of Jayantha Dhanapala**

NGO Session, 7th May 2010

Mr. President, Excellencies, Distinguished delegates,

My name is Jayantha Dhanapala and I am President of the Pugwash Conferences on Science & World Affairs which was awarded the Nobel Peace Prize in 1995.

But this is a personal statement in my current capacity as a member of civil society based on my 25-year-old association with the NPT. I thank all concerned for accommodating me.

I am aware I speak to a multicultural audience—but Shakespeare belongs to world literature. The ghosts in Shakespeare's plays serve the purpose of pricking the conscience of the main characters. I speak, therefore, as a ghost from the 1995 Review and Extension Conference where the nuclear weapon states and their allies assured us all that an indefinite extension of the NPT was vital for predictability so that nuclear disarmament could be achieved. All delegations worked hard, consequently, to adopt a package of three decisions and a Resolution on the Middle East to enable the NPT to be extended indefinitely without a vote. It was quite clearly not an unequivocal and unqualified extension. But the ink was scarcely dry on the package when we witnessed with dismay the disregard for the commitments made on many of the elements of the package.

Mr. President,

in 1995 -we had 5 nuclear weapon states and one outside the NPT. Today, we have 9 nuclear weapon states – 4 of them outside the NPT one of which is being given special privileges by the entire Nuclear Suppliers Group in violation of Article I of the treaty and paragraph 12 of Decision II in the 1995 package. Another will soon receive two power reactors from a nuclear weapon state within the NPT.

In 1970, we had a total of 38,153 nuclear warheads when the NPT entered into force. Today, 40 years later, we have 23,300 – just 11,853 less—with over 8000 on deployed status and the promise by the two main nuclear weapon states to reduce their deployed arsenals by 30% to 1550

each within seven years of the new START entering into force. Another NPT nuclear weapon state is on the verge of renewing its Trident nuclear weapon programme.

In 1995, we had the certain prospect of negotiating a CTBT, which we finally achieved only to find, today, that its entry into force is blocked by two NPT nuclear weapon states and six others. A FMCT that was also envisaged in Decision II of the 1995 package was first obstructed by a NPT nuclear weapon state and is now blocked by one outside the NPT because existing stockpiles are not addressed in the negotiating mandate.

Implementing Decision I of the 1995 Package to strengthen the review process has been a hard struggle. On other elements of the package as well, commitments made in the 2000 Review Conference were rejected in 2005. All states experience changes of government either through democratic elections or through other means but the principle of state succession should apply not only in respect of treaties but also in respect of conference commitments made in consequence of Treaty obligations. There can be no 'exceptionalism' in this respect. Unless states parties agree on this principle they will continue to engage in mutual recrimination over fulfilling past commitments. Decision I enjoined all "to look forward as well as backward" at review conferences but when there is no confidence that past commitments are the basis for future action, states parties will be condemned to operate with rear view mirrors only.

Review Conferences, Mr. President, are not rituals. They are intended as honest five yearly stocktaking exercises in a process of rigorous accountability holding states parties to their obligations in the past and recalibrating objectives for the future in a cumulative process. That assured predictability in the future course of this treaty will dispel any suspense as to whether review conferences would be successes or failures and how much further the tensile strength of the NPT will be tested.

I am aware that many recipes and action plans – including the Milan Document of Pugwash—have been prepared to



Jayantha Dhanapala address to the NGO Session of the NPT Review Conference, May 7, 2010.

ensure the success of this Review Conference. But diplomatic phraseology however adroit can no longer paper over fundamental differences permanently.

At the end of the 1995 conference I said from the chair—“The permanence of the treaty does not represent a permanence of unbalanced obligations, nor does it represent the permanence of nuclear apartheid between nuclear haves and have-nots.” The regrettable exit of the DPRK from the NPT and its subsequent nuclear testing; the welcome return to compliance of Iraq and Libya; and continuing questions over Iran are some of the experiences we have had to go through since 1995. The nonproliferation norm can be strengthened by encouraging the multilateralization of the fuel cycle and the universalization of the Additional Protocol as voluntary options. Basically though, the failure to implement nonproliferation and disarmament simultaneously is unsustainable. The year 2010 dawned with the promise of being a tipping point for nuclear disarmament after the global surge of public opinion in favour of a nuclear weapon free world. Indeed one year after the Prague speech of President Obama we have seen many events collectively hailed as a “Prague Spring”. But will that ‘spring’ blossom into a “summer”?

The continued modernization of nuclear weapon arsenals and their delivery systems; the limited reductions achieved by new START; the troubling ambiguities over the use of nuclear weapons and negative security assurances in the US Nuclear Posture Review; and the persistence of nuclear deterrence in the doctrines of nuclear weapon states show that we have progressed very little. Whether it is the pressures of domestic politics and well-entrenched interest groups or a perceived inferiority in conventional weapons, it does not seem as if nuclear weapon states are ready to eliminate all their weapons even in a phased programme. Even disarmament commissions and some coalitions for nuclear abolition have set their target dates very far into the distant future building artificial base camps on the way to the total elimination of nuclear weapons. The focus on the DPRK and Iran—and on nuclear terrorism—also serves to distract attention from the inherent dangers of nuclear weapons themselves. It has been stated and restated that if there were no nuclear weapons under a verifiable nuclear disarmament regime there can be no proliferation or nuclear terrorism. How do we exercise our responsibility to protect the goal of a nuclear weapon free world?

The only credible alternative appears to be the proposal for a Nuclear Weapon Convention on which negotiations must begin immediately. We already have in the NPT one international compact, which was an agreement between nuclear weapon states and non nuclear weapon states for a transitional period when the former would join the latter in a nuclear weapon free world. That has not happened for forty years. The hedging in the statements setting a nuclear weapon free world as an objective undermines the determination to reach that goal.

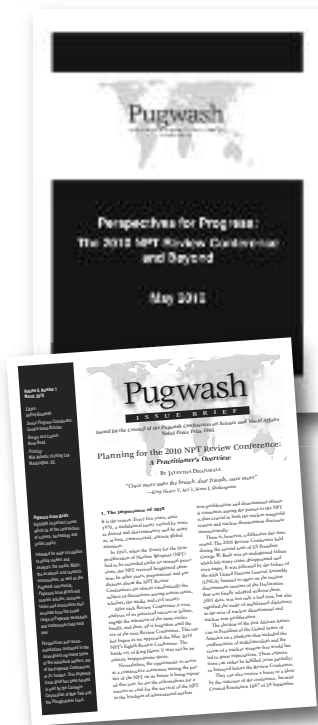
We do need a radical change. In the same manner as we have outlawed biological and chemical weapons among weapons of mass destruction; and, anti-personnel landmines and cluster weapons as inhumane conventional

weapons, we need to begin the process of outlawing nuclear weapons.

Mr. President, I conclude by congratulating you as the first fellow Asian to take the chair of a NPT Review Conference after 1995 and wish you all success.

** Jayantha Dhanapala is a former Ambassador of Sri Lanka who chaired Main Committee I at the 1985 NPT Review Conference and was President of the 1995 NPT Review & Extension Conference. He was UN Under-Secretary-General for Disarmament Affairs from 1998-2003 and is currently President of the Pugwash Conferences on Science & World Affairs. These are his personal views.*

Publication of Pugwash Briefing Book and Issue Brief



In preparation for the 2010 NPT Review Conference held in New York at the United Nations from May 3-28, the Pugwash Conferences published an Issue Brief by Pugwash President Jayantha Dhanapala, *Planning for the 2010 NPT Review Conference: A Practitioner's Overview*, and a Briefing Book, *Perspectives for Progress: Options for the 2010 NPT Review Conference*, with contributions from more than 20 eminent international security and arms control experts.

Pugwash is grateful to the following supporters for making these publications possible: Carnegie Corporation of New York, Ford Foundation (Beijing), Heathside Charitable Trust, ML Resources Social Vision, The Norwegian Ministry of Foreign Affairs, The Ploughshares Fund, and the UK Foreign and Commonwealth Office.

*Draft Pugwash Proposal, 15 May 2010***Making Concrete Steps Towards a Middle East Free of Nuclear Weapons and Other Weapons of Mass Destruction: Role of a UN-Nominated Representative (or Advisor)**

Several countries at different times proposed the creation in the Middle East of a zone free of nuclear weapons and other weapons of mass destruction. The first initiative in this sense was the initiative of Iran in 1974, followed by Egypt, promoting a nuclear weapons free zone. The Mubarak Initiative of 1990 expanded the concept to a WMD free zone. In the 1995 NPT Review Conference a specific Middle East resolution was approved and the final document of the 2000 NPT Review Conference referred to this resolution. All countries of the region have supported resolutions in the UN General Assembly on the creation of a zone free of weapons of mass destructions. The concept was explored in subsequent studies by the UN and UNIDIR. However up to now there has been no progress in the direction of creating such a zone.

It is recommended that, after the NPT Review Conference, a Special Representative (or Advisor) be appointed by the UN Secretary General [as recommended by the NPT Review Conference of States Parties], to be supported by a [committee, advisory board, commission], for the problem of establishing a zone free of nuclear weapons and other weapons of mass destruction in the Middle East with the mandate of:

1. Defining the framework and understanding the conditions under which concrete progress and practical steps towards the establishment of such a zone could be made.
2. Proposing the sequence of the necessary steps towards the establishment of such a zone.
3. Proposing a series of meetings and conferences aimed at defining precisely such practical steps. In this the Special Representative (or Advisor) could also facilitate a synergy between the so called Track-2 discussions and subsequent official negotiations.
4. Preparing a larger UN Conference aimed at defining the general negotiating pattern for the establishment of a Middle Eastern zone free of Weapons of Mass Destruction and of Nuclear Weapons in particular

5. Facilitating negotiations aimed at implementing any interim practical steps.

The Special Representative (or Advisor) should establish a *Committee (alternatives: Advisory Board, Commission)* composed of officials *and* experts from Middle Eastern countries and relevant international organizations, such as the League of Arab States and the African Union besides the UN, and also from the P5 and other countries as appropriate. This Committee should work in a cooperative way to help the Special Representative (or Advisor) in performing the above defined mandate. The Special Representative (or Advisor) should also be in position to organize specific technical meetings, possibly with the assistance of such international organization as the IAEA, the CTBTO, the OPCW, etc.

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Pugwash Consultation on Issues Related to the NPT

London, UK, 6 October 2009

[This workshop does not have a report, just the list of participants is available.]

Participant List

Please note: participants attend in their individual capacities and not as representatives of any organization or government. Organizational information provided here is for information purposes only.

- Dr. Dana H. **Allin**, Editor, Survival; Senior Fellow for US Foreign Policy and Transatlantic Affairs, The International Institute for Strategic Studies, UK
- Dr. Sameh **Aboul-Encin**, Deputy Head of Mission of Egypt to the UK, **Egypt**
- Amb. Wa'el N. **Al-Assad**, Director, Multilateral Relations, League of Arab States, Cairo, **Egypt**
- Ambassador Adel **Babaseel**, Head of Mission, League of Arab States, London.
- The Rt. Hon. Des **Browne** MP, Member of Parliament for Kilmarnock and Loudoun, UK
- Mr. Martin **Butcher**, Global Security Consultant, UK
- Ms. Sandra Ionno **Butcher**, Senior Program Coordinator, London Pugwash Office, UK,
- Prof. Malcolm **Chalmers**, Professorial Fellow, Royal United Services Institute, UK
- Mr. Poul-Erik **Christiansen**, Research Assistant, School of Oriental and African Studies, UK
- Rear Admiral Charles-Edouard **de Coriolis**, Defence Attaché, French Embassy, **France**.
- Prof. Paolo **Cotta-Ramusino**, Secretary-General, Pugwash Conferences on Science and World Affairs; Professor of Mathematical Physics, University of Milan, **Italy**
- Sir Richard **Dalton**, Associate Fellow, Middle East and North Africa Programme, Chatham House, UK
- Amb. Jayantha **Dhanapala**, President, Pugwash Conferences on Science and World Affairs, **Sri Lanka**
- Prof. John **Finney**, Professor of Physics, Dept. of Physics and Astronomy, University College London, UK
- Mr. Mark **Fitzpatrick**, Senior Fellow for Non-Proliferation, International Institute for Strategic Studies (IISS), UK
- Mr. Mike **Gapes** MP, Chairman of the House of Commons Foreign Affairs Select Committee, UK
- Ms. Judith **Gough**, Deputy Head, Security Policy Group, FCO, UK.
- Dr. Rosemary **Hollis**, Director, Olive Tree Scholarship Programme, and Visiting Professor, City University London, UK
- Dr. Rebecca E. **Johnson**, Executive Director, The Acronym Institute for Disarmament Diplomacy, London, UK
- Mr. Ben **Jones**, Senior Adviser on Foreign Affairs & Defence, Parliamentary Office of the Liberal Democrats
- Dr. Peter **Jones**, Associate Professor, Graduate School of Public and International Affairs, University of Ottawa, Ontario, **Canada**
- Dr Ian **Kearns**, Senior Fellow, Royal United Services Institute for Defence and Security Studies, UK.
- Anne **Lazar Sury**, Political, Military Issues, French Embassy, **France**.
- Mr. Simon **Manley**, Director, Defence and Strategic Threats, FCO, UK.
- Mr. Andreas **Persbo**, Acting Executive Director, The Verification Research, Training and Information Centre (VERTIC), UK
- Ms. Shata **Shetty**, Researcher to the Top Level Group of UK Parliamentarians for Multilateral Nuclear Disarmament and Non-Proliferation, UK
- Prof. John **Simpson**, Professor of International Relations, Mounbatten Centre for International Studies, UK
- Richard **Tauwhare**, Communications Manager, Counter Proliferation Department, Foreign and Commonwealth Office, UK
- Ms Katie **Taylor**, PhD Candidate, Cambridge University, UK
- Dr. Christopher **Watson**, Senior Consultant Nuclear Industry and Technology Development,
- Professor Nicholas J. **Wheeler**, ESRC/AHRC Fellow under RCUK's 'Global Uncertainties: Security for All in a Changing World Programme', UK
- Dr Lee **Willett**, Head, Maritime Studies Programme, UK

Pugwash Consultation

The Status of the CTBT and Prospects for its Entry into Force

New York, NY, 12 October 2009

Report

by Prof. Paolo Cotta-Ramusino

Introduction

This document summarizes input received during a series of Pugwash consultations in Autumn 2009. The purpose of this series of meetings was twofold:

To explore the security concerns and political obstacles to Entry Into Force¹ of the Comprehensive Nuclear Test Ban Treaty (CTBT), and

- To obtain a better understanding of what each country can do concretely to create an environment to overcome these obstacles.
- Our goal is to explore synergistic steps that can create a more posi-

tive environment and identify some preliminary steps that might facilitate Entry Into Force of the CTBT.

Pugwash convened a special meeting in New York City in October 2009 with 23 senior policy makers and experts from most of the key states. This was preceded and followed by a series of discussions in New York (at the UN), Washington, DC, Geneva, Islamabad, Beijing, and with key Middle Eastern countries.

While Pugwash is deeply grateful to all participants for their honest input, assessments, and creative suggestions, there was no attempt to seek consensus. This document is an overview of the points raised. Since the input was from varied sources, no one person should be identified with any particular point in this docu-

ment. We do think, however, that there were several very useful suggestions that came out of these meetings, and we encourage dialogue at the appropriate governmental levels on some of the points raised at the end of this document.

In all of our meetings, participants reaffirmed the value of the CTBT. Its affect on regional security and global disarmament efforts was interwoven throughout the detailed discussions. Participants acknowledged that the CTBT is not an end in and of itself, but a step toward delegitimizing nuclear arsenals. Individual countries will rightly make judgment on the impact ratification and Entry Into Force will have on their own security calculus. There is some hope that we are now moving toward achieving some of the CTBT's central goals.

International environment

Participants acknowledged that these meetings took place at a remarkable time, in which the world community was witnessing many encouraging steps that could create a positive momentum toward achieving long-standing disarmament and non-proliferation goals, notably the historic chairing of the UN Security Council by US President Barack Obama and the approval of UNSC Resolution 1887, ongoing US-Russian negotiations on strategic nuclear arms, progress on ballistic missile defense issues, an approved



(from left) Jofi Joseph, Leon Sigal, Tibor Toth, Sergio Duarte, Paolo Cotta-Ramusino, Christopher Chyba.

work plan for the Conference on Disarmament, and a growing international consensus among former ministers and policy makers that an eventual nuclear weapons free world is in the security interests of all.

CTBT trends

There also have also been positive trends regarding the CTBT itself. While at the time of the 2000 NPT Review Conference there were 50 states that had ratified the CTBT, today there are 151 (with 182 signatories). The verification regime is emerging, with 250 International Monitoring System (IMS) centers and laboratories now certified². A relatively positive side effect of the DPRK tests in 2006 and 2009 was that the system has now been tried and tested.

On September 24-25 2009, the Conference on Facilitating Entry into Force of the CTBT, or “Article XIV conference” took place in New York City and involved representatives from 103 States (86 ratifying States, 13 signatory States and two non-signatory States)³. The final document states,

We call upon all States which have not yet done so, to sign and ratify the Treaty without delay, in particular, those States whose ratification is needed for entry into force. **We strongly encourage such Annex 2 States to take individual initiatives to ratify the Treaty. We also commend efforts to create conditions facilitating ratification by such Annex 2 States, including confidence building measures through which such States could be encouraged to consider, as an option, ratifying the Treaty in a coordinated manner.** At the same time, we renew our commitment to work for universal ratification

of the Treaty and its early entry into force (emphasis added).⁴

While there is a need to give capitals of the remaining nine so-called ‘Annex 2’ countries time to assess how this new international situation plays into each country’s individual situation, this series of Pugwash consultations built on the approach called for in the above declaration.

We focused on opportunities for leadership among the key countries and, to the extent possible, on identifying ways in which these individual national actions might have a synergistic effect benefiting the global non-proliferation and disarmament regime. This is time urgent. While there is a current international focus on nuclear disarmament, there are those who question whether this is a permanent ‘turn of the page’ or if things could regress.

There is a danger the current window of opportunity may be missed if the CTBT is tied too much with the need to resolve regional problems in the Middle East, in South Asia, etc. Some of our participants thought there is a window of approximately 1-2 years, and if missed, a similar opportunity may not present itself for a generation.

In other words, according to one of our participants, the ‘transformative efforts’ of Obama and others must now be urgently operationalized.

One of the main issues addressed in several meetings was the view that the US bears the main responsibility for leading the Annex 2 countries into ratification. On the other hand, people in Washington pointed out that a positive approach towards the CTBT from the remaining Annex 2 countries could have an important

impact on the US Senate and could play some role in any future attempt to bring about CTBT ratification in the Senate.

The goal of our past and future activities has been and will be then to encourage key political players in various countries to see what can be done in each country to support the idea of CTBT Entry Into Force while stressing the synergistic elements, as opposed to the “wait and see what others are doing” approach.

Country Profiles

This section gives a general overview of the situation in the nine remaining Annex 2 countries. It is not meant to be fully comprehensive. We welcome feedback and dialogue on these points.

China (signed, not ratified)

The Chinese Foreign Minister recently reiterated Chinese support for the CTBT. “China is the Treaty’s constant supporter and abides by its commitment to moratorium on nuclear test [sic]. ...China has...also taken active and steady steps to advance the preparatory work for the implementation of the Treaty....The Chinese government will continue to work with the international community to facilitate the early Entry Into Force of the Treaty.”⁵

A 17 November 2009 joint statement between US President Barack Obama and President Hu Jintao states, “They committed to pursue ratification of the Comprehensive Nuclear-Test-Ban Treaty as soon as possible, and will work together for the early entry into force of the CTBT.”⁶

It is widely believed that China will ratify once the US Senate confirms the CTBT. However, some in Wash-



ington, DC believe that if China would ratify the CTBT, but withhold deposition of the ratification until the US ratifies, then that would give China maximum political leverage to ensure US ratification.

It was noted that China could play an important leadership role. 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 and other countries that they too can have a similar confidence.

Democratic Peoples' Republic of Korea (has not signed nor ratified)

The CTBT is not an active part of the ongoing discussions and priorities in relation to negotiations with the DPRK. It was, however, considered conceivable by some participants that the DPRK might make a statement on a testing moratorium, and that this might be the most realistic “ask”

at this moment in time. After a series of successful confidence building measures and progress on these issues, this discussion might then be reopened. This further emphasized the need for the negotiations to move forward in a productive manner.

It was noted, however, that the DPRK has sent signals in the past by not restarting plutonium production and seems to be doing so now. Although this was perhaps a ‘two-edged’ signal with the implicit threat to resume, it was noted that in stopping reprocessing numerous times the DPRK gave up a significant amount of plutonium.

A concern was raised, however, that more attention needs to be paid to the impact on prospects for CTBT entry into force if the DPRK were to test prior to a vote on CTBT ratification in the US Senate. It was noted that DPRK probably does not yet have the ability to arm missiles with nuclear warheads, and to do this they

will need possibly more tests. They also need to increase the reliability and functioning of their medium and long-range missiles. It is a reasonable assumption, according to one participant, to assume there are technical people in DPRK looking into these sorts of questions.

The need for inducements was discussed, and the fact that for years the DPRK’s negotiating position was that it wanted a new political relationship with the USA. The DPRK would like to be reassured that the US, Japan, South Korea are no longer a threat to their security and economy. It must be noted that the USA does not have a good track record in this regard, and there is a trust deficit on both sides. When the DPRK is reassured, at the minimum they may be prepared to give up capacity to build more nuclear weapons. It seems they do, however, intend to keep at least their present deterrent, though “denuclearization of the Korean peninsula” remains their stated goal, implying that even their nuclear weapons may be on the table.

It might help with negotiations with the DPRK if the US were to make a statement to the effect of “The

U.S. maintains nuclear weapons to deter, and if necessary, respond to nuclear attacks against itself, its forces, or its friends and allies.” Some thought this might be possible in the context of the US nuclear posture review, or some sort of negative security assurance.

Questions were discussed over the possible proactive role China might play in promoting a positive outcome, though some expressed the sense that the possible impact of China’s role may be smaller than what is generally believed.

Egypt (signed, not ratified)

In Egypt public opinion is focused on the non-universality of the NPT, with attention to the CTBT framed in that context. At the recent Article XIV Conference, Amb. Abdelaziz restated Egypt's position:

Egypt played a visible role in the negotiation of the CTBT and was among the first states to sign the Treaty in 1996. Egypt's support for the Treaty has been associated with the fact that, as stipulated in the CTBT preamble itself, CTBT is a complementary reinforcement to the NPT system, and was motivated by the adoption of the NPT 1995 review/extension package that included an essential resolution on the Middle East....the 2010 Review Conference will be of paramount importance to move our agenda together, to implement the 1995 Resolution on the Middle East, which will open the doors for a new horizon to the CTBT.⁷

There is a deep sense of frustration in Egypt that there has not been significant progress on the Middle East resolution, and this affects not only the CTBT but prospects for a successful NPT Review Conference as well. Ways on which the Middle East WMD Resolution could be implemented have been discussed and several proposals have been considered, including an international coordination to promote a WMD Free Zone in the Middle East.

In our meetings, some expressed the view that there is a need to create the public environment in Egypt for discussing the CTBT. However, others felt that at the moment, if Egypt were to push forward on CTBT, it may be counterproductive,

as many would raise the raw history that when Egypt joined the NPT, Israel did not follow suit. They would prefer for Israel to move first. On the other side, Egypt, being a member of the NPT, has also signed (but not yet ratified) the Pelindaba Treaty, so Egypt has multiple obligations that are impeding any nuclear test.

Thus, in this as in many other cases, the refusal to ratify the CTBT is mainly a part of a political checkers game, in which arms control items are the draftsmen. This is all understandable, but an effort should be made to call the attention to what the CTBT and the other arms control items mean in reality, and not only in the realm of political symbolism.

India (has not signed nor ratified)

India maintains a voluntary testing moratorium. Indian Prime Minister Singh reiterated India's commitment to this moratorium in a press conference with Japan's Prime Minister Hatoyama. He said, "...India has unilaterally declared moratorium [sic] on conducting nuclear explosive testing and that is a commitment we will honour."⁸

As part of the US-India deal, the Indian foreign minister reaffirmed India's unilateral moratorium on testing and the US Secretary of State and others stated this deal would be wrecked if India were to test.⁹ The Indian Prime Minister, National Security Advisor¹⁰ and the Department of Energy have all disagreed with the perception recently put forth by K. Santhanam, an Indian scientist who claims that India needs further tests.¹¹

As part of the Lahore Declaration, there is a Memorandum of Understanding¹² between the India and

Pakistan that the two sides remain committed to the moratorium. For ten years this moratorium has held, and there has not been a single statement in public discussing testing (prior to Santhanam). On 1 January of each year, there is an exchange regarding nuclear installations in which each side agrees not to attack the others' installations. There are notifications of ballistic missile tests. The MOU includes also discussion of nuclear doctrine.¹³ In 2007 India and Pakistan signed detailed nuclear risk reduction measures. There are still questions as to how to work through Pakistan's concerns regarding the Indian stockpile.

Some participants suggested it might be useful to go back to the MOU, to explore expanding the 'nonattack' provisions to other facilities, and use this as a way to restart the process. India supports an FMCT.

In September 1998, Indian Prime Minister Vajpayee emphasized India's commitment to the goals of the CTBT, "After concluding this limited testing program, India announced a voluntary moratorium on further underground nuclear explosions," he said. "We conveyed our willingness to move toward a *de jure* formalization of this obligation. In announcing a moratorium, India has already accepted the basic obligation of the C.T.B.T."¹⁴ He also stated that India would not stand in the way of operationalizing the CTBT.¹⁵

It was agreed that building on the momentum of Obama's Prague speech, ratification by the US and China, for example, would certainly create a more favorable environment in India not only for the CTBT but also for the general framework of nuclear disarmament. Some partici-

pants thought that these sorts of steps would create the conditions where India's unilateral moratorium could transition into a legally binding obligation. Indian Prime Minister Manmohan Singh reported stated recently in December 2009 that, "Should the US and China ratify the CTBT, a new situation will emerge."¹⁶ An even more direct commitment from the leaders would be most useful.

There is however a spectrum of views in India, as in all countries. Participants discussed the possible negative impact of encouraging debate in India at this time. At the moment, some said, there is no serious 'application of minds' to the idea of conducting nuclear tests likelihood of an Indian test in the foreseeable future is seen by some as negligible, though questions related to design and reliability cannot be ignored, as is the case in most states with nuclear weapons. It was felt that this situation is unlikely to change unless there is a dramatic turn—for example if the nuclear regime collapses, or if there is a need for nuclear modernization, or if the Indian security environment is severely undermined. Some pointed out that if India takes steps to test as threatened by K. Santhanam, it will be of interest to see if it takes steps to change the Lahore Declaration. Some thought that even if relations were normalized between

India and Pakistan it is unlikely that either would sign/ratify the treaty due to nationalist sentiments and pride.

Indonesia (signed, not ratified)

Indonesia's recent statement that it would ratify the CTBT immediately after the US ratifies was widely appreciated as a very positive step.

Indonesian Foreign Minister Hassan Wirajuda stated in June 2009, "We share [President Obama's] vision of a world in which nuclear weapons have been eradicated. We trust that he will succeed in getting the CTBT ratified—and we promise that when that happens, Indonesia will immediately follow suit."¹⁷

Iran (signed, not ratified)

It was noted that officially Iran has not indicated any specific anti-CTBT sentiment, that it has generic support for it, though it couches its support, as do some other countries, in terms of general trends toward nuclear disarmament. For example, at the 2007 Article XIV conference, Amb. Ali Asghar Soltanieh said,

...the Islamic Republic of Iran believes that the following key factors could pave the way for the total elimination of nuclear weapons in general, and early entry into force of the CTBT in particular:

-The NWSs bear the main responsibility in entry into force of the CTBT and they should take the lead in this regard. Ratification of the CTBT by Nuclear Weapon States could be considered as a positive step towards restoration of the confidence of NNWSs and international community.

-Some of the Annex II States are not even a party to the NPT and have un-safeguarded nuclear material and facilities. Their promptly acceding to the NPT would be another significant element in facilitating early entry into force of the CTBT.¹⁸

While the absence of exposure on the issue can create opportunities for

forward movement, it was felt that Iran is unlikely to start with the CTBT as a confidence building measure.

In Iran the issue of the CTBT is not considered separate from nuclear negotiations. Movement on the Middle East WMD Free Zone might help. Perhaps a 5+1 agreement could imply a corollary for CTBT ratification. However it was noted that of the '5+1', 2 of the 6 have the same position as Iran with regard to the CTBT so there is no leverage to push Iran on the issue at the moment. It was felt it might be useful to emphasize NAM support for the CTBT in discussions with Iran¹⁹.

If one considers the Iranian declaration that they have no intention to build nuclear weapons, the logical consequence is that it should be possible to have inspections, transparency, and possibly to allow international bodies to have control. If this is combined with the lifting of sanctions, this is a possible way out of the deadlock. It should not be politically impossible to consider as a side point negotiating for CTBT ratification.

It was noted that the extent to which Iran may help test a 'new non-proliferation regime', and to be at the forefront of facilitating communications and scientific understanding of the possibilities of this new regime, there may be prospects for cooperation.

Israel (signed, not ratified)

At the most recent Article XIV conference, Amb. David Danieli reiterated Israel's "unequivocal support for the CTBT. Israel's support has been manifested all along including in our active participation in the many activities of the Preparatory

Commission.”²⁰ He emphasized the need to address nuclear issues in their regional context.

Participants in the Pugwash consultations emphasized that Israel gave great thought before signing the CTBT, and that this should be seen as a very clear commitment. It was noted that when the yearly CTBT resolutions come up in the First Committee, Israel always votes for them and agrees to the ministerial declarations. Further Israel has welcomed verification centers, and has political standing within the CTBTO, and it was expressed that this should be viewed as an important perspective on Israel’s policy toward the CTBT. Israel is not likely to tie its ratification of the CTBT to ratification by other countries.

Participants stressed that from the Israeli perspective it is important to see how the regime and the non-proliferation architecture can deal with breaches. Israel prioritizes a very structured regional process based on confidence building measures, and improved relations with neighbors over global regimes. This is anchored in a 1993 cabinet decision, adopting a step by step approach, starting with peace accords between Israel and its neighbors, followed by confidence building measures, followed by regional processes, conventional arms control, then non-conventional (bio, chemical, then nuclear). This is not envisioned in decades but in a few years, step by step and gradual. It was noted that while it has not ratified various regimes (CWC, BWC, NPT), Israel has incorporated into its legislation the relevant suppliers’ group regimes.

Israel does not see May 2010 as a critical date for the CTBT, as they are

not a party to the Review Conference, and are not likely to join the NPT in the near future.

Due to regional considerations, Israel will not ratify the treaty, especially given their concerns about Iran’s current policies. Others commented that there are a lot of people in Israel who are ready to go back to ACRS, to see what can be done in a regional forum.

Pakistan (has not signed nor ratified)

At the 2007 Article XIV conference, Amb. Shahbaz reaffirmed Pakistan’s support of the CTBT. He said, “Despite being a non-signatory state, we are not opposed to the objectives and purposes of the treaty.

Pakistan had resolved to abide by the main provisions of the Treaty by declaring and maintaining a unilateral moratorium on nuclear testing in 1998.”²¹

Pakistan maintains its Memorandum of Understanding regarding a testing moratorium with India (see above) and is likely to continue to maintain this moratorium, unless something undermines it. There is a belief that if the US were to ratify the CTBT and if momentum builds with India, Pakistan would not stand in the way. Currently, there is a question as to why Pakistan should move forward if the US, India, and China have not done so.

There is no opposition to CTBT (or even to FMCT) in terms of principles, but there is a sense that before Pakistan could proceed, reassurances concerning India should be very clear. The US India nuclear deal has obviously sent the wrong message in general and to Pakistan in particular, and a forward looking Indian nuclear

policy (non increase of forces, CTBT, etc.) would have of course a positive effect on Pakistani nuclear policy. Statements or hints that the US might decide to take control by force of Pakistani nuclear weapons in time of crisis, have of course the opposite effect. Likewise statements or hints that India may need to test again, have a detrimental effect in Pakistan on these issues.

There remains a considerable conventional imbalance between Pakistan and India, and the Composite Dialogue is stalled. Given this conventional imbalance, some participants in the Pugwash consultations questioned whether it is a given that Pakistan would move forward on the CTBT even if India does. Another negative point was that like India, Pakistan may not have confidence in its designs. Although neither country likes to discuss this, they do not have a sense of where they want to stop. Pakistan’s nuclear weapons are India-specific, and this may create both opportunities and challenges for the CTBT. There was a sense that if the US continues to pressure Pakistan on nuclear security issues, and if Pakistan feels squeezed between India and the US on this topic that there is no way they will move forward.

Some participants believed that perhaps the best way to promote discussion would be to make the technical aspects of the CTBT more widely known, especially given the developments made in the past decade. This sort of discussion could move forward in parallel with progress in other areas of the disarmament regime, including confidence building measures and regional security.

It was noted that Pakistan is participating in some of the technical work

of the CTBTO, though this is not widely publicized.

United States of America (signed, not ratified)

At the recent Article XIV conference, US Secretary of State Hillary Clinton reiterated the Obama Administration's support for the CTBT:

The Comprehensive Nuclear-Test-Ban Treaty is an integral part of our non-proliferation and arms control agenda, and we will work in the months ahead both to seek the advice and consent of the United States Senate to ratify the treaty, and to secure ratification by others so that the treaty can enter into force.....President Obama and I applaud Indonesian Foreign Minister Wirajuda's recent pledge that his country will move forward with ratification once we have done so. We look forward to similar statements from the remaining Annex 2 nations...²²

The US further reaffirmed its commitment to the CTBT in a joint US-EU declaration in November 2009, "We express our support for entry into force of the Comprehensive Nuclear-Test-Ban Treaty (CTBT) at an early date, and in the meantime continued observance of moratoria on nuclear test explosions."²³

Following the failed 1999 ratification vote in the US Senate, there is now for the first time in a decade active consideration of putting forward the CTBT for ratification in the US Senate. A total of 67 votes are needed, and approximately 7 are still questionable. Some say the target should be 68 or 69 to allow for a 'hedge.' Achieving this target may become more difficult after the Democratic defeat in the recent special election in Massachusetts and the upcoming mid-term elections.

President Obama has said he will not authorize new nuclear warhead development (despite contrary state-

ments made by Secretary of Defense Gates). The US National Academy of Sciences has a study underway to address some of the technical issues. The US Nuclear Posture Review (now reportedly due 1 March, though there are indications this date may slip further) is another bellwether. The recent JASON report on warheads definitely stated that there are no concerns about the aging of the arsenal.²⁴ It is possible some of arguments from the defense establishment may arise during debate of the US-Russia Strategic Arms Reduction Talks, though the belief is that the Obama administration firmly realizes that designing a new warhead is not necessary and would complicate their broader non-proliferation goals. Meanwhile, some in the US will say, why should the US stick its head out, when there is no indication that all of the other countries will follow US ratification?

The administration understands the need to show progress, and the studies about to be published may help with this. The Vice President is beginning to make speeches, and it might be possible to start Senate Foreign Relations hearings ahead of time. However, there is a strong concern that it would be a huge mistake to push for a vote before the numbers are solid. The stakes are high—as one participant phrased it, "There won't be a third Senate debate on the CTBT."

One US participant said that when the US Senate ratifies the treaty, the Indian and Pakistani and other ambassadors should expect to be called into the Oval Office, and those conversations at that time will be important bellwethers.



: (from left) Tibor Toth, Sergio Duarte, Paolo Cotta-Ramusino.

Mutuality and Opportunities for Further Movement

This section briefly identifies some of the areas where it might be possible to further explore the synergist elements involved with creating the climate conducive for Entry Into Force of the CTBT. Further discussion on these sorts of points is urgently needed.

The importance of dialogue and public statements

While some raised concerns about prematurely raising the CTBT in different countries, it was pointed out that one should not confuse this with, nor use it as, an excuse to avoid the need to get increase familiarity over the various options. Suggestions were put forward for ways to promote discussion at the appropriate levels.

Many believed that it would be very useful for the US debate in particular to have statements expressing willingness to move forward once the US ratifies from heads of state and public officials in other Annex 2 countries.

Another idea put forward was to have initiatives similar to the 'Four Horsemen' in the US – to get former ministers, former army chiefs, etc to start the discussion specifically on the CTBT in various countries, either through a letter or at a multilateral conference.

A related option would be to have the nine Annex 2 governments separately or in groups review the situation and make a statement before the Review Conference, to the effect that they support the objective of the CTBT, that it is an excellent instrument, that they understand that all will benefit from the treaty when it is working, etc. This might create a positive environment for the NPT

Review Conference. It was pointed out that the test ban issue has been a major stumbling block in many Review Conferences.

The idea of pulling together composite documents or various declarations to which the Annex 2 countries have at times agreed may be an interesting exercise (for example, the Article XIV 5-page declaration includes most, but not India, Pakistan, DPRK or Israel; there have been General Assembly resolutions that have included Pakistan, DPRK, etc.)

Reinforcing and building upon existing commitments

Most of the Annex 2 countries have committed to testing moratoria, or in some other way have agreements or public statements that they will not test. Yet many prefer to wait for others to ratify first. The fact is that if the other Annex 2 countries do not sign/ratify the CTBT, the treaty will not Enter Into Force. The argument then that countries do not want to stick their heads out and ratify first should be switched. For states that have no intention to test, nothing is in fact jeopardized by ratifying the treaty, but rather such a move creates the momentum toward Entry Into Force.

The norms that exist to prevent testing are strong in some regions. For example, according to Ahmer Bilal Soofi, a lawyer in the Supreme Court of Pakistan and the founding President of Research Society of International Law, the moratorium on testing contained in the 21 February 1999 Memorandum of Understanding between India and Pakistan as part of the Lahore Declaration has treaty status, and thus serves as a "mini-CTBT" between the

two countries. Others may still say that this MOU is a very weak substitute for the CTBT. Yet the point is that both India and Pakistan are to a certain extent legally bound not to test. This fact should be further injected into the relevant policy debates in other Annex 2 countries.

Further engaging in technical discussions

While emphasizing the ratification of the CTBT is above all a political decision, participants identified areas where technical discussions might help create an atmosphere promoting mutuality. If the scientists are convinced in different countries as to the merits of the CTBT EIF, this will have a profound impact.

For example, more discussions could be held detailing the benefits of the verification regime for countries. These sorts of discussions could contribute to an informative debate in different capitals, not putting pressure, but stressing information sharing. The CTBTO could conduct technical sessions about the working/monitoring systems in different countries as a way to foster an informed discussion. "Convenient entry points" for discussions include a nuanced understanding of what the system can do beyond verification – for example, tsunami warning efforts. Exploring ways scientific data can be exchanged, and how scientists can contribute, is very important. This sort of discussion/presentation should be possible in most countries. The possibility of additional Middle East monitoring stations might be raised.

It was noted that all states could show their support for the treaty's goals by funding the CTBTO. Providing CTBTO access to data and

full support for all the organization's activities would also be helpful.

A separate but related technical discussion centers on nuclear modernization as a driver for the perceived need for continued testing. Further discussions could be held both internally and between states with nuclear weapons on what matters and what doesn't regarding modernizing nuclear arsenals.

For example, other countries are watching the US, to see if a deal will be made with the nuclear labs on nuclear modernization as a quid pro quo for Senate ratification. Such a move undoubtedly would have a negative effect in other countries. For example, if the US increases the quality and capabilities of its nuclear weapons, this will have an impact on the security calculus of other countries and cause a ripple effect. Some say this lack of US progress on the CTBT, and this outstanding question about the possible form of US nuclear modernization, is discouraging any meaningful debate in other countries.

One idea put forward was to explore the possibility of having a clear statement from the US and/or other countries, stating that new tests are not needed to maintain existing arsenals. It would be helpful if side agreements and understandings on permissible activities were made public or communicated to the CTBTO. Some expressed the opinion that this is a zero yield treaty, that hydrodynamic tests with no yield are not forbidden. Some suggested it would be worth asking the P5 what form these agreements took, as it is unclear if for example a signed piece of paper exists. Participants were advised to look very closely at the 1997 Clinton transmission of the CTBT to the

Senate, which spells out an article by article analysis.

As a related corollary, some participants believed that countries need to have a more public discussion of the role nuclear weapons in their security policies, including further definition of the minimum deterrent needs, and possibly clear public statements that demonstrate an effort to decrease the salience of nuclear weapons in doctrines. This could reinforce the principle that no new designs need to be tested for the purpose of introducing new capabilities.

There was a suggestion that perhaps US National Academy of Sciences members and other scientific experts might go to India and Pakistan and other regions to discuss these issues. Some related points also could be raised in the Obama summit in 2010.

Regional interplays

As mentioned throughout this summary, regional dynamics were obviously thread through all of our discussions.

In India/Pakistan, the role of major opinion makers (former officials and the media) in catalyzing the discussion about the CTBT was discussed, while emphasizing the importance that it must not seem to be manufactured externally. Nuclear confidence building measures can help. India and Pakistan might seek to further define their minimum deterrent levels. Pugwash was encouraged to organize a meeting in the region specifically on the CTBT and FMCT. One proposal was that India and Pakistan might use joint talks on the CTBT as a confidence building measure.

Between Israel/Egypt there exists a complex dynamic. Both countries

could consider decoupling the CTBT from the Middle East situation. Egypt could perhaps begin to discuss the CTBT in terms of general global stability. It is after all not interested in nuclear testing. However, given Egypt's reluctance to ratify first due to the NPT history, some wondered if Israel might ratify first to satisfy Egypt's concerns. There was a question raised as to the wisdom of using the WMD Free Zone as a bargaining chip in a area where political leadership could have a profound impact.

A question was posed that if neither Israel nor Egypt intends to test a nuclear weapon, is it reasonable to hold the CTBT hostage to political dissatisfaction arising from the regional setting? This was put in contrast with the situation in South Asia. However, from another perspective, it was recognized that there is a degree of political normalization in South Asia which does not exist in the Middle East.

Provisional Entry Into Force

A controversial idea was raised as to when it might be necessary to think about provisional entry into force of the treaty, and whether or not the Article XIV conferences could do more work on this. For example, one possibility posed was whether or not it would be useful to move forward with provisional entry into force if all other Annex 2 countries sign and ratify, except for one (such as the DPRK). Some participants worried about the impact of leaving a 'black hole' and questioned why it is impossible to think such a hole might not be able to be blocked. There is a concern of the impact on the regime's long-term stability, and the sustainability of the NPT if we begin to think in these terms.

Anticipating possible stumbling blocks

Concerns were raised in our consultations as to the need for further consideration of the question as to what to do if a state tests or claims it will conduct a limited number of tests before ratifying. This was highlighted as a weak spot in the current climate. What disincentives to CTBT EIF would this raise and how should such a situation be handled were questions identified as needing further exploration.

Conclusion

As can be seen from the above very initial selection of possible activities, there are many ways to push forward toward the goal of Entry Into Force of the CTBT. It is essential that the international community step back from this idea of a ‘chicken or egg’ scenario. There are avenues that can be pursued which emphasize mutuality of interests and that can create a synergy on these issues. More work is needed to push these sorts of approaches forward, both in Track 2 and inter-governmental fora.

Pugwash would like to thank the many foundations, governments, and individuals who have shared their resources and expertise with us during this project, and we look forward to continuing our discussions in the lead up to the 2010 NPT Review Conference and beyond.

Please share any feedback on the above points.

Prof. Paolo Cotta-Ramusino,
Secretary General
(Paolo.Cotta@mi.infn.it)

Sandra Ionno Butcher,
Senior Program Coordinator
(sibutcher@earthlink.net)

Notes

- ¹ The CTBT will enter into force 180 days after the 44 states specifically listed in Annex 2 of the Treaty have signed and ratified the treaty. These states were those with nuclear technology capabilities at the time of the final Treaty negotiations in 1996. Of these, nine are still missing: China, DPRK, Egypt, India, Indonesia, Iran, Israel, Pakistan and the USA. DPRK, India, and Pakistan have yet to sign the CTBT. See for example, “CTBTO Fact Sheet,” http://www.ctbto.org/fileadmin/user_upload/public_information/CTBT_FactSheet.pdf.
- ² See for example, statement of Tibor Toth, Executive Secretary CTBTO, 17 November 2009, http://www.ctbto.org/fileadmin/user_upload/public_information/2009/Verification_Statement_17_November_2009.pdf.
- ³ “Unique Day for Comprehensive-Nuclear-Test-Ban Treaty,” Press Release, 25 September 2009. <http://www.ctbto.org/press-centre/press-releases/2009/unique-day-for-comprehensive-nuclear-test-ban-treaty>
- ⁴ “Annex, Final Declaration and Measures to Promote the Entry into Force of the Comprehensive Nuclear-Test-Ban Treaty,” CTBT-Art.XIV/2009/6, available at: http://www.ctbto.org/fileadmin/user_upload/Art_14_2009/CTBTArt.XIV-2009-6.pdf
- ⁵ “Message from H.E. Yang Jiechi Minister of Foreign Affairs for the People’s Republic of China to the Sixth Conference on Facilitating the Entry Into Force of the Comprehensive Nuclear-Test-Ban Treaty,” 24 September 2009. http://www.ctbto.org/fileadmin/user_upload/Art_14_2009/240909_Afternoon_Session/240909_China.pdf
- ⁶ “In Full: US-China Joint Statement,” CBS News, 17 November 2009. <http://www.cbsnews.com/blogs/2009/11/17/politics/politicalhotsheet/entry5677524.shtml>
- ⁷ Statement of Egypt, delivered by H.E. Amb. Maged Abdelaziz, Permanent Representative of Egypt to the United Nations in New York, at the Conference of Facilitating Entry Into Force of CTBT, 25 September 2009, http://www.ctbto.org/fileadmin/user_upload/Art_14_2009/250909_Morning_Session/250909_Egypt.pdf
- ⁸ “Japan asks India to sign CTBT, no word on N-deal,” Press Trust Of India, 29 December 2009, <http://ibnlive.in.com/news/japan-asks-india-to-sign-ctbt-no-word-on-ndeal/107916-3.html>
- ⁹ Secretary of State Condoleezza Rice told Congress on April 5, 2006, “We’ve been very clear with the Indians... should India test, as it has agreed not to do, or should India in any way violate the IAEA safeguard[s] agreements to which it would be adhering, the deal, from our point of view, would at that point be off.” <http://csis.org/publication/us-india-nuclear-deal-and-nonproliferation>. A US government official responded to a Congressional question on this matter by saying, “Article 14 of the proposed US-India agreement for cooperation provides for a clear right for the U.S. to terminate nuclear cooperation and a right to require the return of equipment and materials in all of the circumstances required under the Atomic Energy Act, including if India detonated a nuclear explosive device....” Questions for the Record Submitted to Assistant Secretary Bergner by Chairman Tom Lantos, House Committee on Foreign Affairs, October 5, 2007, http://media.washingtonpost.com/wpsrv/world/documents/Lantos_Letter.pdf
- ¹⁰ National Security Adviser M.K. Narayanan, “As of now, we are steadfast in our commitment to the moratorium. At least there is no debate in the internal circles about this.” In the same article he is quoted as saying, “I think we need to now have a full-fledged discussion on the CTBT.” Quoted in Siddharth Varadarajan, “NSA: India doesn’t need another nuclear test,” The Hindu, 30 August 2009, <http://www.thehindu.com/2009/08/30/stories/2009083059910800.htm>
- ¹¹ K. Santhanam, a former official with the Defence Research and Development Organisation, was quoted as saying, “We can’t get into a stampede

- to sign CTBT. We should conduct more nuclear tests which are necessary from the point of view of security,” Times of India, 27 August 2009, <http://timesofindia.indiatimes.com/india/NoCTBT-India-needs-more-nuclear-tests-Pokhran-II-coordinator/articleshow/4940502.cms>. Following Santhanam’s statement, the government reportedly “strongly refuted claims that the 1998 test of a thermonuclear device had been a failure”, Siddharth Varadarajan, “‘Fizzle’ claim for thermonuclear test refuted,” The Hindu, 28 August 2009, <http://www.hinduonnet.com/thehindu/2009/08/28/stories/2009082859831000.htm>. This article quotes Principal Scientific Adviser R. Chidambaram.
- ¹² The Lahore Declaration states (21 February 1999 Memorandum of Understanding): “The foreign secretaries agreed that the two sides...shall continue to abide by their respective unilateral moratorium on conducting further nuclear test explosions unless either side, in exercise of its national sovereignty decides that extraordinary events have jeopardized its supreme interests;” See for example: <http://cns.miis.edu/inventory/pdfs/lahore.pdf>, p. 3.
- ¹³ For related documents, see “Lahore Summit, February 20-2, 1999,” <http://www.stimson.org/southasia/?sn=sa20020109215>
- ¹⁴ Quoted in Barbara Crossette, “New Delhi Pledges to Sign World Ban on Nuclear Tests,” New York Times, 25 September 1998, <http://www.nytimes.com/1998/09/25/world/new-delhi-pledges-to-sign-world-ban-on-nuclear-tests.html?pagewanted=1>
- ¹⁵ See for example, “To save N-deal, PM says India won’t sign CTBT”, Times of India, 12 June 2008, <http://timesofindia.indiatimes.com/india/To-save-N-deal-PM-says-India-wont-sign-CTBT/articleshow/3121769.cms>
- ¹⁶ Josy Joseph, “Let US, China Sign CTBT First [sic], Singh Tells Japan,” DNA, 30 December 2009. http://www.dnaindia.com/india/report_let-us-china-sign-ctbt-first-singh-tells-japan_1328949
- ¹⁷ Indonesian Foreign Minister Hassan Wirajuda at the Carnegie Endowment on 8 June 2009, <http://www.carnegieendowment.org/events/?fa=eventDetail&cid=1356>
- ¹⁸ Statement by H.E Ambassador Soltanieh, Permanent Representative of the Islamic Republic of Iran To the UN and other international organizations in Vienna, To the Fifth Conference on Facilitating the Entry into Force of the CTBT Vienna, September 17-18, 2007, http://www.ctbto.org/fileadmin/content/reference/article_xiv/2007/statements/1809_pm_session/1809pm_iran.pdf
- ¹⁹ The final document of the XV Summit of Heads of State and Government of the Non-Aligned Movement, Sharm el Sheikh, Egypt, 11 – 16 July 2009 states, “The Heads of State and Government *stressed* the significance of achieving universal adherence to the CTBT, including by all NWS, which, inter alia, should contribute to the process of nuclear disarmament. They *reiterated* that if the objectives of the Treaty were to be fully realized, the continued commitment of all States signatories, especially the NWS, to nuclear disarmament would be essential.” NAM2009/FD/Doc.1, <http://www.namegypt.org/Relevant%20Documents/01FINAL%20document.doc>
- ²⁰ Statement by Ambassador David Danieli, Deputy Director General (Policy), Israel Atomic Energy Commission, Conference on Facilitating Entry Into Force of the Comprehensive Nuclear Test Ban Treaty, United Nations, New York, 24-25 September 2009, http://www.ctbto.org/fileadmin/user_upload/Art_14_2009/240909_Afternoon_Session/240909_Israel.pdf
- ²¹ Statement by Ambassador Shahbaz, Permanent Representative of Pakistan to the International Organizations in Vienna, Conference on Facilitating the Entry Into Force of CTBT, Vienna, 17-18 September 2007, http://www.ctbto.org/fileadmin/content/reference/article_xiv/2007/statements/1809_pm_session/1809pm_pakistan.p df
- ²² US Secretary of State Hillary Rodham Clinton, Remarks at CTBT Article XIV Conference, New York, NY, September 24, 2009, http://www.ctbto.org/fileadmin/user_upload/Art_14_2009/240909_Morning_Session/240909_US.pdf
- ²³ 2009 U.S.-EU Summit Declaration, Annex 3, Declaration on Non-proliferation and Disarmament, November 3, 2009, <http://www.whitehouse.gov/the-press-office/us-eu-joint-declaration-and-annexes>.
- ²⁴ See for example, Hans Kristensen and Ivan Oelrich, “JASON and Replacement Warheads,” 20 November 2009, <http://www.fas.org/blog/ssp/2009/11/jason.php>

Participants

Please note: participants attend in their individual capacities and not as representatives of any organization or government. Organizational information provided here is for information purposes only.

Dr. Sameh **Aboul-Encin**, Deputy Head of Mission of Egypt to the UK, **Egypt** [Formerly: Director of the United Nations Department, Ministry of Foreign Affairs, Cairo, Deputy Representative of Egypt to the Conference of Disarmament, UN, Geneva, Post Doctoral Researcher, Diplomacy Academy, University of Westminster, London and author of several publications on nuclear disarmament].

Jo **Adamson**, Deputy Head of the UK Delegation

Dr. Jeffrey **Boutwell**, Executive Director, Pugwash Conferences on Science and World Affairs, Washington, DC, USA; Member, Pugwash Council [Formerly: Associate Executive Officer, American Academy of Arts and Sciences, Cambridge; Staff Aide, National Security Council, Washington, DC]

Ms. Sandra Ionno **Butcher**, Senior Program Coordinator, London Pugwash Office, USA/UK, [Concurrent positions: Director, Pugwash History Project; Executive Secretary, British Pugwash Group. Formerly: Senior Analyst and Interim Research Director, British American Security Information Council; Executive Director, Student Pugwash USA]

Prof. Christopher **Chyba**, Professor of Astrophysics and International Affairs, Princeton University USA [Concurrent position: Member, President's Council of Advisors on Science and Technology (PCAST)]

Prof. Paolo **Cotta-Ramusino**, Secretary-General, Pugwash Conferences on Science and World Affairs; Professor of Mathematical Physics, University of Milan, **Italy** [Formerly: Secretary General, Union of Italian Scientists for Disarmament (USPID); Director, Program on Disarmament and International Security,

Landau Network – Centro Volta, Como, Italy]

Amb. Sergio **Duarte**, United Nations High Representative for Disarmament Affairs, **Brazil** [Formerly: President of the Review Conference of the Parties to the Treaty Prohibiting the Emplacement of Nuclear Weapons on the Seabed and the Subsoil Thereof (Geneva); Chairman of the Board of Governors of the International Atomic Energy Agency (IAEA); President of the VII Review Conference of the Parties to the Treaty on the Non-proliferation of Nuclear Weapons, in New York (2005). He has represented Brazil at many other international meetings in the field of disarmament, arms control and non-proliferation. A career diplomat, Ambassador Duarte graduated in law from the Federal Fluminense University (Niterói, Rio de Janeiro) and in public administration from the Brazilian School of Public Administration (Getúlio Vargas Foundation, Rio de Janeiro).]

Dr Gabriele **Kraatz-Wadsack** (Col.), Chief, Weapons of Mass Destruction Branch, United Nations Office for Disarmament Affairs, **Germany** [Formerly: BW/CW Division, Department for Disarmament and Arms Control, Federal Foreign Office, Germany; Chief Inspector, United Nations Special Commission on Iraq; Colonel, Federal Ministry of Defence, Germany; Post-Doc, Ludwig-Maximilians-University, Munich, Germany]

Mr. Jofi **Joseph**, Senior Advisor to Undersecretary of State for Arms Control and International Security, **USA**. [Formerly: Foreign Policy Advisor, Office of Senator Robert P. Casey, Jr., 2007-2009; Professional Staff Member, U.S. Senate Foreign Relations Committee, 2001-2004]

Mr Daryl **Kimball**, Executive Director, Arms Control Association, **USA** [Formerly: executive director of the Coalition to Reduce Nuclear Dangers (1997 – 2001); Associate Director for Policy and later, the Director of Security Programs for Physicians for Social Responsibility (1989 – 1997)]

Lt.-Gen. (ret.) Talat **Masood**, Independent Columnist, Commentator and Analyst, Islamabad, Pakistan [Formerly: retired Lt. General; Secretary, Defence Production Division, Ministry of Defence; Chairman, Pakistan Ordnance Factories Board; various command, staff and instructional appointments in the armed forces]

Prof. Amitabh **Mattoo**, Professor of International Relations and Member, National Knowledge Commission, Jawaharlal Nehru University, New Delhi, **India** [Formerly: Vice Chancellor, University of Jammu, J&K; Member, Prime Minister's Task Force on Global Strategic Developments; Member, National Security Advisory Board]

Dr Rajiv **Nayan**, Research Officer, Institute of Defence Studies and Analyses, **India**.

Mr. Andreas **Persbo**, Acting Executive Director, The Verification Research, Training and Information Centre (VERTIC), **UK**, *Office: VERTIC, Development House, 56-64 Leonard Street, London EC2A 4LT, UK, Tel: (++44) (0)20 7065 0880, Fax: (++44) (0)20 7065 0890, E-mail: andreas.persbo@vertic.org

Jean **du Preez**, Chief: External Relations and International Cooperation, Comprehensive Nuclear Test-Ban Treaty Organisation (Preparatory Commission), **South Africa** [Formerly: Director of the International Organizations and Nonproliferation Program, James Martin Center for Nonproliferation Studies (CNS) and Senior Lecturer, Graduate School for International Policy Studies, Monterey Institute of International Studies; former diplomat and arms control negotiator with 17 years service in the South African Foreign Service]

Dr Rodica **Radian-Gordon**, Director, Arms Control Department, Ministry of Foreign Affairs Jerusalem, **Israel**

Amb. Mohamed **Shaker**, Chairman, **Egyptian** Pugwash Group, and Vice Chairman, Egyptian Council for Foreign Affairs (ECFA), Cairo [formerly: Ambassador to the UN (New York), Vienna (IAEA) and London]

Prof. Leon **Sigal**, Director, Northeast Asia Cooperative Security Project, Social Science Research Council, USA [Formerly: Member of the editorial board of *The New York Times* (1989 – 1995), Bureau of Politico-Military Affairs, US Department of State: International Affairs Fellow (1979) and Special Assistant to the Director (1980); Brookings Institution: Rockefeller Younger Scholar in Foreign Policy Studies (1972 – 1974) and guest scholar (1981 – 1984). Professor of government, Wesleyan University (1974 – 1989).]

Amb. Tibor **Toth**, Executive Secretary of the Preparatory Commission of the Comprehensive Nuclear-Test-Ban Treaty Organization, **Hungary** [Formerly: Permanent Representative of Hungary to the United Nations and other Interna-

tional Organizations in Geneva and the Conference on Disarmament; Ambassador-at-Large for Non-proliferation and Critical Technologies, Hungarian Ministry of Foreign Affairs; Permanent Representative of Hungary to the United Nations and other International Organizations in Vienna; Ambassador-at-Large for Non-proliferation; Hungarian Deputy State Secretary of Defense in charge of international affairs; Permanent Representative of Hungary to the Preparatory Commission of the Organization for the Prohibition of Chemical Weapons in The Hague.]

Dr Christine **Wing**, Senior Fellow and Project Coordinator, Strengthening Multilateral Approaches to Nuclear and Biological Weapons, New York University, USA [Formerly: Program Officer for

International Peace and Security at the Ford Foundation in New York; consultant to the Nuclear Threat Initiative; Visiting Fellow at Princeton University's Center of International Studies; Coordinator of the National Disarmament Program at the American Friends Service Committee (AFSC); AFSC's National Representative for Economic Rights].

Mr. Moeed **Yusuf**, Fellow, Frederick S. Pardee Center for the Study of the Longer Range Future, Boston University, **Pakistan** [Concurrent positions: Research Fellow, Strategic and Economic Policy Research, Islamabad, Pakistan; Teaching Fellow, Boston University; Regular columnist, *The Friday Times* [formerly: Special Guest Scholar, Brookings Institution, Washington, DC]

Dear Sandy,

It is official. The International Astronomical Union named Asteroid Rotblat.

Here is how the citation for asteroid Rotblat appeared in the 2 Dec 2009 Minor Planet Circulars:

(22645) Rotblat = 1998 OT6 Discovered 1998 July 26 by the Lowell Observatory Near-Earth Object Search at the Anderson Mesa Station.

Joseph Rotblat (1908-2005) was a Nobel Peace Prize laureate in 1995 for his efforts toward nuclear disarmament. A signatory to the 1955 Russell-Einstein manifesto, he was the guiding spirit of the Pugwash Conferences on Science and World Affairs and helped prevent the use of nuclear weapons during the Cold War.

The citation material provided by A. Alsabti.

I would also like to take this opportunity to thank Dr Edward Bowell of the Lowell Observatory, USA for his important role in this.

Athem Alsabti / Iraqi Pugwash
Dr Athem W. Alsabti Tel: +44 (0) 208 238 8870 (Secretary)
University of London Observatory +44 (0) 208 238 8888
553 Watford Way Mob: +44 (0) 777 985 0599
Mill Hill
London NW7 2QS Office (Tel): +44 (0) 208 291 5085
United Kingdom Office (Fax): +44 (0) 208 291 9211

Pugwash-Pakistan Delegation *Meetings and Consultations*

Washington, DC, 18–23 October 2009

The following report is the result of several meetings and consultations held in Pakistan in June 2009 and to a limited extent in August 2009. The opinions/suggestions expressed in the report reflect the sentiments of a majority of the people who were involved in these meetings and consultations. They do not necessarily reflect the opinion of each individual participant or Pugwash per se.

Executive Summary

Afghanistan, insurgency, relations with the US (and India)

There is a widespread resentment in Pakistan towards the US; Pakistanis are cognizant that the lack of trust is mutual. At the root of this resentment is the US role in the Afghan Jihad, the link between US operations in Afghanistan at present and the fall out on Pakistan, and the broader negative perceptions that have been built around the Muslim world of which Pakistan is, by definition, an integral part.

There is skepticism about the way in which US is conducting its campaign in Afghanistan. The skepticism concerns the goals, the tactics and the results thus far. The perception is that US heavy handedness has dictated Pakistan's policy and it has often not been in Pakistan's own interests. The problems of the insurgency in Pakistan are deemed to be distinct from the corresponding problems in Afghanistan. Pakistan wants to decide itself how to deal with the insurgency in its own territory and what its priorities should be. Cooperation with the US is certainly possible

and even welcome, but once the Afghanistan and Pakistan challenges are contextualized as linked, yet separate. The roles and responsibilities have to be different. Respect for Pakistan's territorial integrity is high on the demand list. Despite the possibility of Pakistani government support to the policy, the drone-attacks are seen as a national and political liability, irrespective of the limited tactical results they obtained. In dealing with the cross-border operations near the Afghan-Pakistan

border, there is the feeling that Pakistan is more concerned with controlling the border than either Afghanistan or the US, and that obstacles to improving the control (e.g. biometrics, fencing, increase in the number of checkpoints) emanate primarily from US and Afghanistan.

There were also concerns, in varying degrees, about the US role in Pakistan's domestic politics. The US' view of itself as a domestic player in internal politics, especially its perceived influence on successive Pakistani governments is not welcomed. Excessive visibility of US official presence in Pakistan is received equally negatively. The "special relationship" between US and India was also mentioned as a major concern.



Seminar at the Atlantic Council with Paolo Cotta-Ramusino, Stephen Cohen of the Brookings Institution, and Aziz Ahmed Khan.



Anne-Marie Slaughter, Director, Policy Planning Staff, hosts a discussion at the State Department.

There is the general perception that Pakistan's portrayal in the US media and popular discourse is exceptionally negative. This has wide ranging consequences for the future of the US-Pakistan relationship, the quest to win the hearts and minds, as well as the economic well-being of the country. Both countries are engaged in 'double speak' which results in mixed signals and often incorrect information making its way into the public domain. It is believed that US officials understand Pakistan's concerns but often turn a blind eye to the negative publicity Islamabad receives as a means to maintain pressure on Pakistan. This also casts doubt in the Pakistani mind whether America is willing to invest in Pakistan's well-being over the long run. The current relationship is largely seen as transactional with a one-point agenda, i.e. eliciting support for fighting militancy.

On the other hand, the Af-Pak terminology is disliked and has received strong criticism across Pakistan. The Pakistani intelligentsia is not pleased with a de-hyphenation of the Indo-Pak equation and the hyphenation of the Pak-Afghan calculus. The issue is

not only one of national pride; there is a genuine concern among the strategic enclave that the permanence of the threat from India has not eroded. There are not many takers in Pakistan for the argument that India loses from Pakistan's collapse and is thus willing to help it in its fight against terrorism. Again, Afghanistan is seen as a concern that has to be addressed but not by considering the Afghanistan and Pakistan militancy problems as part of the same theater. There is absolute consensus that Pakistan must focus on its own priorities which while including stability in Afghanistan do not extend to the point where Pakistani policy is being determined based on the Afghan, rather than Pakistan situation. There is objectively no interest for Pakistan to be fully involved in what is happening outside its borders, namely in Afghanistan. And inside Pakistan the confrontation with militancy should be carried on, with an eye to the effective danger, to the problems caused to Pakistan, and to the concrete possibility of improving the situation on the ground.

The presence of a large number of foreign fighters (Arabs, Chechens,

Uzbeks, etc) in FATA, the ready availability of weapons, the large amount of money coming in, among others are worrisome but require enhanced international cooperation to reverse. These problems stem from transnational factors outside the control of Pakistan alone.

One issue raised repeatedly was the possibility of integrating FATA with NWFP. There are, on paper, obvious advantages to this proposal. Problems come when one considers their actual feasibility, the local sentiment of the people of FATA, and particularly the need of maintaining traditional autonomous prerogatives of the region (the suppression of which could only be successfully carried out if there is corresponding compensation in terms of tangible improvement of economic and social standards of living). In any case, the prospect of integrating FATA with NWFP should be kept on the agenda and examined thoroughly before a decision is taken.

Despite the concern towards India, there is a largely shared desire to see a resumption of the Composite Dialogue. The attitude towards India is not of blind hostility. It is an attitude of serious concern meshed with the desire for reconciliation.

Throughout the discussions it was pointed out that the terms *insurgency*, *terrorism*, *radical Islamic movements*, etc., are often confused and interchanged. In reality one has to understand the nature and distinguish the characteristics of the different groups of militants operating on the territory. A single policy across the board is not always the best strategy.

The case of Swat was of particular interest to our exercise in Pakistan.

The tribal structure, that for a long time was the main reference point for the area, has undergone a significant loss of authority. Main problems affecting the people have been the lack of quick and reliable justice, concerns with broader governance issues, and unemployment coupled with a extreme youth bulge. The State is perceived as being incapable of addressing these problems. The power vacuum in Swat was progressively filled by a group of individuals, who started as preachers but gradually altered their rhetoric and demeanor to morph into the Swat Chapter of the TTP. As they were unable to improve the situation of the population in structural terms, they increased their leverage by a combination of coercion, promotion of so called “Islamic” ideology, offering selected job opportunities to those who were involved in keeping their “order”, and in a lot of cases, sheer brutality. All these activities have been de facto tolerated by the central power (due to lack of means, political will and/or capabilities).

Ultimately, when the state had all but lost its writ, it (also thanks to US pressure) reacted militarily. It evacuated the area and sent the troops in. People were displaced and lost properties, houses, etc; hence they became even more resentful. While the Pakistan Army has ensured a swift return of the IDPs and locals seem determined to keep the Taliban away, ultimately normalization is impossible with speedy relief and rehabilitation. What is required is *effective* reconstruction – the possibility of real economic development. This is a complex job requiring money (wisely spent!) and international cooperation, given the limited amount of resources available to Pakistan. In

particular the aid should be effectively aimed at improving the well-being of the civilian population rather than being recycled to bureaucratic red tape and overhead costs both within the US and in Pakistan.

Compromises with the Taliban and the militants in general are possible, provided that the end-result is improvement of living conditions for the civilians. A generalized military confrontation is not the solution according to most Pakistan experts. Certainly we have no solution if military operations also result in constant, heavy “collateral damage”, if civilian lives are wasted, and if the people are more traumatized and terrorized than before. This points to the need for effective military operations, for a distinction to be drawn between different militant outfits, and to deal with different policy measures depending on the group in question. Al Qaeda and the Taliban are not the same entity and Pakistani policy makers insist on a distinction here.

The ideological aspects of the militancy are critical. There is no doubt that the ideology of the militants does, one way or the other, refer to what can generally be called “radical Islam”. A pivotal role in removing the conflation between Taliban’s political rhetoric couched in an “Islamic” dialect and religious values themselves can be played by the Islamic scholars and Islamic leaders. Even the variety of traditional so-called Islamic parties can provide answers that are different from the ones that are dominant among certain types of militants. Well known Islamic scholars who criticize the Taliban ideology must question the politico-religious assumptions of the militants. It is not by chance that many of these scholars are under

direct threat and a few of them have been killed. Nonetheless, it should be underscored that within the discourse on political Islam, there are powerful antibodies to the global vision supported by the most radical Islamic movements.

Talking about the role of radical “Islamic movements” it was pointed out that popular perception of Pakistan being the country with the strongest Islamic movements is misplaced. It is common belief that if, in many so called “moderate” Arab states, free and fair elections were held, Islamic movements would have a realistic chance of rising to power. The dynamic is completely missing in Pakistan.

Overall, Pakistani stress that they have been a victim of many acts of terrorism that has cost dearly in terms of human lives, destroyed infrastructure, and hurt the country’s economic wellbeing. In this light, Pakistan’s constant portrayal as the global source of terrorism is deeply resented

The Nuclear Factor

Pakistan has been forthcoming in improving its (multilayered) command and control system and the safety and security of the nuclear arsenal. Moreover, its role in strengthening its export control regime and management of nuclear material has been acknowledged even by outsiders. To the extent possible, Pakistan has also regularly briefed local and foreign interested parties about the progress in this regard.

The A.Q. Khan affair was a source of embarrassment for Pakistan. Regarding A.Q. Khan’s motivations, it has been privately pointed out that, besides economic gains, A.Q. Khan was probably motivated by the desire



Press breakfast for the delegation at the Old Ebbitt Grill.

to facilitate the acquisition of nuclear weapons for the larger Islamic community. Ideologically or economically motivated proliferators are certainly a serious problem, but the specific problem of A.Q. Khan is now under control and extreme care is taken by the Pakistani military in assuring the screening and the reliability of the personnel inducted in sensitive posts. Pakistan realizes its own vulnerabilities and is thus much more careful to build in redundancy and triangulation in its safety and security protocols. There is a realization that it itself will be the biggest loser should any incident remotely resembling the AQ Khan affair take place.

The reality of the matter is that *all* nuclear weapons (irrespective of the country possessing them) are intrinsically insecure. In comparative terms, why should Pakistani nuclear weapons be more insecure than others? For example, the question has been asked “what information do we have about the security of nuclear weapons in India or in Israel?” Pakistan builds its insurgent problem and political instability in the calculus when it plans on its safety

and security measures. This is precisely where its new-found obsession with redundancy emanates from. In terms of the risk of unauthorized use or inadvertent launch, it was pointed out that systems like PALs have been developed. Moreover, recessed postures minimize this risk to begin with.

Pakistani nuclear weapons are India-specific, namely they are an answer to India’s nuclear arsenal. Anything like the deployment of Indian BMD systems or expansion of the Indian nuclear weapons program will destabilize the situation. On the other hand, reinitiating of the dialogue with India, common discussions on nuclear restraints, strategic stability, conventional balance and the moratorium of the test ban and other Nuclear Risk Reduction Measures could induce a progressive de-emphasis of nuclear weapons.

Scenarios have been described in the international press in which Pakistani nuclear weapons could be “lost” to militants, Taliban or other radical movements. The scenarios include a 1979 Iran-type situation with a full revolution or a situation in which the

Army simply loses control of the insurgents. Both cases are not realistic, at least no more realistic than many other worst case scenarios that one can imagine for most nuclear states countries in different parts of the world. Most western and the Indian government has expressed confidence in Pakistan’s ability to control its arsenal.

Yet, the scenarios described above are quite often mentioned in the international press and, in relation to these scenarios, a perception has developed that the US may prepare contingency plans to take out the Pakistani nuclear weapons. The reluctance on the part of the US to deny such plans is problematic. While experts dismiss these plans as unfeasible, they question why the US does not challenge this version to reassure Pakistan. As contingency plans induce counter-contingency plans, the attitude in Pakistan is that, it should prepare itself to fully deny the possibility that the US may take possession of Pakistani nuclear weapons. At least theoretically, this could lead to steps that are considered destabilizing in the nuclear calculus.

The nuclear issue has to be dealt with regionally, with India taking the lead. It is unrealistic to expect Pakistan to take the initiative when India is maintaining and expanding its nuclear arsenal. Pakistan has in the past presented a number of proposals to reduce nuclear risk in South Asia; in fact, it also tabled a NWFZ proposal. Pakistan’s position is clear: it wants a South Asia which is not held hostage to the possibility of a nuclear catastrophe and wants India to be an active partner in ensuring this. Pakistan’s position on CTBT and NPT is linked to India’s. The US should play an active role in

supporting Nuclear Risk Reduction Measures in South Asia. Thus far, Washington has been reluctant to do so. Finally, it must not be forgotten that Indian conventional superiority forms the cornerstone of Pakistan's deterrence equation.

Economic Relationships

Pakistani economic experts seek a revision of the presently transactional nature of the relationship with the US. The constant reminder of Pakistan being an expensive strategic partner for the US is not well received. During our meetings, quite a few participants repeatedly said that Pakistan demands 'trade', not 'aid' from the US.

While Pakistanis remained appreciative of the new direction towards a holistic economic relationship under President Obama, the economic bills being debated in Washington have raised concerns. Conditionalities on aid are extremely tricky. On the one hand, domestic compulsions for American policy makers necessitate these. Yet, the Pakistani government demands minimizing them. That said, lack of conditionalities often leads to leakage of funds and ultimately the blame is transferred to the US for not supporting the Pakistani people. However, whatever conditionalities are imposed, they should be specific to performance in the sector they are being provided for, not linked to terrorism and other non-economic concerns.

Currently, 30-60 percent of the funds shown as 'aid' to Pakistan are actually repatriated in the form of consultant fees and overheads. Pakistan does not benefit from that money. The composition of aid should therefore be altered. Local partners (with a major share) should be elicited in each case such that Pakistani firms



Gen. Mahmood Durrani leads discussion at the Heritage Foundation.

and nationals benefit as much as possible. This will also help generate greater goodwill for the US. Moreover, commonly cited aid figures should only reflect the amount actually delivered to Pakistan and utilized within the country.

Ultimately, Pakistan seeks increased trade and investment from the US. Pakistan's requests for a more active partnership in this realm have been deferred since 9/11. Participants pointed to a number of non-allied countries which have a more preferable trade arrangement with the US. Pakistani exporters would ideally like to see zero-rated access for Pakistan's principal exports, at least for the next 3-5 years. Pakistanis wish to see the US assist it in becoming highly integrated in the global economy.

The general sentiment about the ROZs (Reconstruction Opportunity Zones) remains rather negative. Experts argued that the policy will be unable to deliver results given the security environment and capacity issues in FATA. Also it is very difficult to establish an ROZ and promote the development of, say, textile industries in an area with no previous industrial experience in the sector. In order to do so a Pakistani investor should be confident about

the public safety conditions, receive substantial economic help, be able to bring visiting businessmen from western countries to the production sites, and similar basic prerequisites to improve business prospects. All these conditions look difficult to realize. It was also pointed out that making such a limited, economically isolated area a ROZ does not have any multiplier effects for the rest of the country. While there were suggestions for alternate models, the chief demand was to declare the entire Pakistan as an ROZ as far as goods destined to America are concerned.

On investment, Pakistani businessmen saw a negative US role. The frequent travel advisories for Pakistan and a perpetual hammering of a negative image in the media have kept even the most serious investors away. Compared to many other countries which have serious law and order problems, the US State Department has been hyperactive in raising alarm about physical presence of US citizens in Pakistan. This has hurt Pakistan's investment attractiveness as it has kept western investors at bay. For a western investor, committing to a deal with, say, a Pakistani textile exporter and then not feeling comfortable (or being allowed) visiting the factory, is a non-starter.

Pugwash-Pakistan Delegation Meetings and Consultations

Washington, DC, 18–23 October 2009

Schedule of Meetings and Seminars

Tuesday, October 20:

- 09:30–16:30 Conference on US-Pakistan Relations
Brookings Institution, 1775 Massachusetts Ave., NW
- 19:00 Dinner hosted by New America Foundation
Cosmos Club, 2121 Massachusetts Ave., NW

Wednesday, October 21:

- 08:45–10:00 Press and Media Breakfast (entire delegation)
Old Ebbitt Grill, 675 15th St., NW
- 11:00–12:00 Meeting with Richard Armitage
- 12:00–14:00 Luncheon seminar on US-Pakistan Economic and Political Relations
Stimson Center, 1111 19th St., NW, 12th floor
Panelists: Hon. Ahsan Iqbal, Mr. Ahmer Bilal Soofi, Dr. Adil Najam
- 13:30–15:30 Seminar on Pakistan nuclear concerns
National Academy of Sciences, 500 5th St., NW
Discussants: Feroz Hasan Khan and Stephen P. Cohen
- 15:00–17:00 Panel at New America Conference on Counter-terrorism,
Mayflower Hotel, 1127 Connecticut Ave, NW
Panel speakers: Gen. Mahmud Durrani, Hon. Sherry Rehman,
Mr. Ejaz Haider, Gen. Talat Masood
- 19:30 Dinner with Pentagon WMD South Asia team
St. Gregory's Hotel
Gen. Talat Masood, Ejaz Haider, Brig. Feroz Khan, Moeed Yusuf

Thursday, October 22:

- 09:30–11:00 Seminar on Pakistan Nuclear Issues
The Heritage Foundation, 214 Massachusetts Ave., NE
Speakers: Gen. Mahmud Durrani, Mr. Ejaz Haider
- 15:00–17:00 Meeting with Policy Planning Staff (Anne-Marie Slaughter, Director)
US State Department, 2201 C St., NW
- 17:30–19:30 Farewell reception

Pugwash Workshop

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**

Report

by Jeffrey Boutwell

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 President Obama and Chinese Presi-

dent 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; (4) multi-lateralizing No First Use undertakings; (5) abandoning ballistic missile defense efforts; and (6) 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 accom-

pany 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 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 24 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 stock-

piles; 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 depositary 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 interdependent 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 sepa-



(from right): Steve Miller, John Finney, Serguey Batsanov, Chen Duming.

rately 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 inter-dependence 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 Rarotonga 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.

Agenda

Thursday, 19 November

14:00– Registration

18:00–20:00 Reception

Friday, 20 November

09:00–09:30 Opening Session, Group Photo

09:30–10:30 **Session 1:** Evaluation of major nuclear disarmament and non-proliferation challenges, and strategies for ensuring a successful NPT Review Conference

Remarks: Sergio Duarte, Jayantha Dhanapala, Mohamed Shaker

10:30–10:45 Tea Break

10:45–12:30 **Session 1** (continued)

12:30–14:00 Lunch Break

14:00–16:00 **Session 2:** Status of CTBT Entry into Force and Fissile Material Cut-Off Treaty

Remarks: Steven Miller, Talat Masood, Ramamurti Rajaraman

16:00–16:15 Tea Break

16:15–18:30 **Session 3:** Moving towards deep reductions among all nuclear-weapons states

Remarks: Serguei Batsanov, John Finney, Steven Miller

19:00 Banquet

Saturday, 21 November

09:00–10:45 **Session 4:** Promoting nuclear weapons-free zones

Remarks: Peter Jones, Saideh Lotfian, Mohamed Kadry Said

10:45–11:00 Tea Break

11:00–12:45 **Session 5:** CBMs for verifying reductions in nuclear arsenals and ensuring non-diversion of civilian nuclear materials for military purposes

Presentations: Tatsu Suzuki, Amitabh Mattoo, Goetz Neuneck

12:45–14:00 Lunch Break

14:00–16:00 **Session 6:** Wrap-up discussion / Closing Session

Presentation: Paolo Cotta-Ramusino, Pan Zhenqiang, Jeffrey Boutwell

16:00 Tea Break

17:00–21:00 Evening Recreation Activity

Sunday, 22 November

9:00– Social Activities/Sightseeing (Free Choices) or departure

Note: Each panel session will be composed of two or three invited presentations, followed by discussions.

30th Workshop of the Pugwash Study Group on the Implementation of the Chemical and Biological Weapons Conventions: *Preparing for the Seventh BWC Review Conference*

Geneva, Switzerland, 5-6 December 2009

Report

by Catherine Jefferson

Particular thanks were given to the Association Suisse de Pugwash (ASP) who, together with the Geneva International Peace Research Institute (GIPRI), hosted and organised this Workshop with the help of Christine Demièrre who made the detailed arrangements in Geneva. Without the continuing support of the Swiss Federal Government, there would have been no workshop.

The workshop took place on the eve of the Biological Weapons Convention (BWC) Meeting of States Parties on 7 to 11 December 2009 and was attended by some 40 participants, all by invitation and in their personal capacities, from about half that number of countries, including Australia, Austria, Belgium, Canada, Germany, India, Iran, Italy, Japan, the Netherlands, New Zealand, Pakistan, Poland, Russia, Spain, Sweden, Switzerland, the United Kingdom (UK) and the United States of America (USA), among them participants from the International Committee of the Red Cross, the Technical Secretariat of the Organization for the Prohibition of Chemical Weapons, and the World Health Organization. In addition, the

Chairman of the 2009 Meeting of BWC States Parties, Ambassador Marius Grinius of Canada, participated.

This report is the sole responsibility of its author, who was asked to prepare a brief account of the proceedings of the meeting in consultation with the Steering Committee. It does not necessarily reflect a consensus of the workshop as a whole, nor of the Study Group. The workshop was strictly governed by the Chatham House Rule, so reference to specific speakers is not detailed here.

I. Introductory Session

Developments related to the Chemical Weapons Convention

Although scheduled for the opening session, this was rescheduled for Sunday morning to facilitate the participation of representatives from the OPCW. It is, nevertheless, reported as planned here.

The workshop heard a report on the progress in the implementation of the Chemical Weapons Convention (CWC). It was noted that while the OPCW is a well functioning institution, there exist several inevitable challenges for the future. First, it is evident that not all CW destruction will be completed by the April 2012 deadline and discussion will need to take place between Member States to

reach a politically and legally acceptable decision on this issue. Next, as CW destruction does begin to draw towards completion, destruction facilities will be going out of commission and there will be a reduced need for inspectors. This transition in function, and the possible attendant need to downsize the organisation, will require careful planning. It was suggested that the future direction of the OPCW should be towards improving monitoring of non-proliferation, with a greater emphasis on industry. It was also pointed out that there were other challenges such as to how new developments in science and technology and how the convergence of chemistry and biology should be addressed. It was suggested that the OPCW could with advantage build more synergies and alliances with the BWC, other international organisations and NGOs.

A number of developments as evident in particular, during the recently concluded 14th session of the CSP, were also discussed. It was noted that most delegations touched on issues of inspections, destruction deadlines, cooperation and assistance, and the future of OPCW. Discussion in respect to Article 7 (national implementation) and Article 10 (assistance and protection) had been particularly encouraging, and an increasing number of Member

States focused on the potential role of the CWC in mitigating the threat of CW terrorism.

It was also noted that there had been positive developments in terms of engagement by the OPCW with NGOs. Global Green USA, in partnership with VERTIC, hosted a two-day meeting during the Conference of State Parties to push forward the proposal of an NGO Coalition against CW. Some 50 participants, representing around 30 NGOs, attended the meeting to discuss the mission statement, organisation and activities of the Coalition. It has been proposed that the International Coalition for a World Free of Chemical Weapons, or 'CWC Coalition', be an independent body whose aim is to support the CWC and its efforts towards universality, implementation, transparency and meeting CW destruction deadlines. 25 NGOs have already signed up to the Coalition and it is hoped that many more will do so in due course.

International CBW Criminalization: the Harvard Sussex Draft Convention

A brief presentation was made on the Harvard Sussex Draft Convention on the international criminalization of CBW. The Draft Convention proposes to harmonise domestic law with international law by conferring on national courts jurisdiction over individuals present in their national territory, regardless of their nationality or official position, who order, direct, or knowingly render substantial assistance to the use of biological or chemical weapons anywhere.

Given the growth of new science and technology and the attendant challenges of compliance and verification of the treaty regime, it was suggested

that the need to develop the idea of individual criminal responsibility was becoming increasingly apparent and that the time might now be ripe for meaningful discussion of moving the draft convention forward into the domain of public policy. In order to aid dissemination of the idea a number of information resources had been prepared and uploaded to the Harvard Sussex Program website¹ and a symposium for further discussion of the Draft Convention on the international criminalization of CBW is being planned.

Meeting of Experts BWC 24 – 28 August 2009

The topic being addressed by the Intersessional Process in 2009 is:

With a view to enhancing international cooperation, assistance and exchange in biological sciences and technology for peaceful purposes, promoting capacity building in the fields of disease surveillance, detection, diagnosis, and containment of infectious diseases: (1) for States Parties in need of assistance, identifying requirements and requests for capacity enhancement; and (2) from States Parties in a position to do so, and international organizations, opportunities for providing assistance related to these fields;

The Chairman of the meetings in 2009 is Ambassador Grinius of Canada. In considering a report on the Meeting of Experts, it was noted that that meeting had been extremely successful with a high level of participation and high quality expertise. In addition, a large part of the meeting had for the first time been webcast live to enable wider access and participation of those experts who were unable to attend the meeting in person.

There was rich discussion on implementation of the first paragraph of Article X during the Meeting of Experts. The Chairman had prepared a synthesis paper from the discussions at the Meeting of Experts which addressed six key themes:

- Aims
- Problems, challenges and needs
- Developing mechanisms for building capacity
- Developing the necessary infrastructure
- Developing human resources, and
- Developing standard operating procedures.

In essence, it was recognised that there was a need for the following:

- Sustainability
- Integrated approach
- Coordinate assistance, cooperation and capacity-building, and
- Identifying regional needs.

It was also noted that as the Seventh Review Conference in 2011 draws closer, it will be necessary to prepare for decisions at the Review Conference which will map out the future of the BWC. In this regards, it was suggested that the BWC should be seen as more than just an arms control treaty but rather as the *focal point of a broader security regime* that brings together activities in a number of arenas, such as science and human, animal and plant health.

II. Preparing for the Seventh BWC Review Conference in 2011

A. Preparing for a successful outcome

This session began by exploring opportunities for the future of the BWC beyond the Seventh Review Conference. It could be argued that it would not be a useful strategy for

the BWC to either revisit the verification protocol idea or to continue the intersessional process in its current form. There was a risk that a return to negotiations similar to those of the verification protocol could risk overwhelming States with divisive issues at the expense of actual activity that would address contemporary concerns with the BWC. Yet, at the other end of the spectrum, a simple continuation of the intersessional process with its preset agenda would not do enough to enrich *and strengthen* the BWC.

What is needed, it was suggested, is a new agenda that goes beyond the current scope of activities and addresses both cotemporary and medium-to-longer term questions. It was noted that many good ideas already exist but these need to be brought together. It was also suggested that intersessional activities should be reformulated to be made more ambitious and effective in the period 2012 to 2016 with an extended mandate, and that a wider range of stakeholders should continue to be brought into activities. Furthermore, it was argued that there is a need for a forum for States Parties to engage in discussion of a compliance strategy.

Reiterating the need for effective action, an alternative view was also presented on the verification protocol. It was suggested that the time might now be conducive for discussion of the protocol. It was proposed that a less prescriptive and less detailed new text could be prepared based on the text of 2001 in line with the mandate of the Special Conference of 1994. Furthermore, a phased approach could be adopted whereby decisions on more contentious issues could be

postponed until future Conferences of States Parties. Concerns were expressed, however, that such an approach based on the 2001 text might have “political baggage” and that advances in science and technology might not be adequately addressed.

This session ended by examining a possible means by which an assessment could be made of the success or failure of the regime to control BW. It was noted that the regime was much wider than simply the BWC itself and also included, for example, the Geneva Protocol, Security Council Resolution 1540, the Australia Group and national implementation measures. Some threat ambition categories were identified: (non)use; (non)integration; (non)possession; (non)acquisition; (non)aspiration that might be used in analysing the success or failure of the regime,

B. Improving the Monitoring of the Implementation of the Convention

This session opened with an examination of the importance of an implementation mechanism for the BWC. It was noted that many States Parties recognised the importance of a legally binding compliance mechanism, and at the Meeting of Experts in August 2009 there were several statements mentioning this in looking ahead to the Seventh Review Conference. It was said that it is time for action now so that ideas can be put forward through Working Papers at the intersessional meetings in 2010. Such ideas should provide a fresh start, with no preconditions, to consider a regime to build confidence in compliance so as to strengthen the effectiveness and improve the implementation of the Convention.

The promotion of partnerships with the life sciences industry and civil society was explored as a means to support the 2010 intersessional process and the upcoming review conference. It was said that the life sciences industry needs to be included in dialogue in a more concerted manner, modelled on the CWC experience, since private industry is indispensable in the development of effective codes of conduct and self-regulatory mechanisms. It was also noted that few States had collected information on industry in their CBM submissions but that this could provide a means to build confidence and harmonization of standards with regard to biosafety and biosecurity. However, it was argued that such mechanisms should apply broadly, not just to industry, but to all laboratories. It was further suggested that civil society must play a crucial role in outreach to educate and build awareness of the issue and to promote support for the necessary mechanisms within the BWC. Such awareness-raising should help to build trust and focus on industry as part of the solution.

This session ended by examining the promotional, rather than regulatory, aspects of the BWC. It was noted that during the Meeting of Experts in August 2009, the NAM group had submitted a Working Paper proposing a mechanism for effective implementation of Article X as a part of negotiations to strengthen the Convention. Similarly, Iran had submitted a Working Paper proposing a mechanism to deal with denials of technology and material transfers. It was therefore argued that cooperation and assistance should be strengthened within the framework of the convention to fully

implement Article X. However, it was also noted that while the BWC should not inhibit scientific freedom, it would be necessary to recognise that States Parties had responsibilities under both Article X and Article III – the non-proliferation obligation – of the Convention.

C. Improving the CBM regime

This session examined proposals to strengthen the CBM mechanism. It was noted that consensus needs to be built on what is needed, what is feasible and what information builds confidence. In order to build momentum to bring this agenda to the Review Conference, a series of workshops have been organised. The first workshop took place following the Meeting of Experts in August 2009. This workshop examined the history of CBMs, the strengths and weaknesses of the mechanism, how contexts have changed scientifically and politically, how existing CBM forms may be improved or remodelled, and what other elements of compliance assessment are necessary. A further workshop is scheduled to take place following the Meeting of States Parties in order to explore options for moving forward and what essential elements are required in a confidence building mechanism. A final workshop is planned for spring 2010 on Berlin in order to bring the ideas together.

It was further reiterated that States Parties need to start considering this issue in the coming year and to submit Working Papers in 2010 on what steps should be taken at the Seventh Review Conference to strengthen the CBM mechanism – through steps to facilitate their submission, through extended understandings as to what should be

declared under the existing CBMs, and through new CBMs on topics such as Article X, as well as on outreach, awareness-raising, education and codes of conduct. It was also suggested that States Parties should be encouraged to share legislative data through the CBM mechanism.

Questions were also raised over the mechanism through which States Parties analyse information submitted through CBM forms. It was argued that if they are not being effectively analysed then it could be argued that their value was questionable. However, it was said that CBMs should be seen as part of a broader effort of building confidence in compliance.

D. The Convergence of Chemistry and Biology

This session examined the convergences in chemistry and biology and attendant challenges for the treaty regime. The session opened by proposing that if chemistry and biology really are converging to such a degree, then the two Conventions – the CWC and BWC – ought also to be considering how best their regimes might be integrated. It was noted that while certain potential new agents (such as, for example, bioregulators) fall within the scope of both treaties, this does not necessarily mean they are doubly protected. It was also observed that although both conventions prohibit the weaponisation of toxins, it could be argued that this overlap, has not reinforced safeguards. Despite the magnitude of threat presented by new agents such as mid-spectrum agents they are only weakly controlled. It was suggested that opportunities should be taken during the 2011 and 2013 Review

Conferences of the BWC and CWC to bring convergences between the treaties into real prospects.

An update on advances in science and technology was provided, focusing on the areas of functional genomics, synthetic biology, systems biology and targeted delivery systems. It was noted that progress in functional genomics could facilitate the manipulation of complex microorganisms, including viruses, to meet designer specifications. Advances in sub-fields of synthetic biology are also opening up the possibility of the potential misuse of biological agents other than microorganisms and toxins, such as peptide and protein bioregulators of physiological systems, and it was argued that governance strategies are not sufficient to keep pace with developments. It was suggested that top-down and bottom-up approaches are necessary to address biosecurity at the level of provider, purchaser, principal investigator, project and premises. It was also noted that advances in systems biology – a field of biology that seeks to understand the working of complex physiological systems within and between cells – presents the largest potential scope for abuse through the manipulation of vital cellular targets. Of further concern are advances in agent delivery techniques. The production of defined nanoparticles combined with new methods for making substances absorbable through the nasal and respiratory tracts create a potential for greatly improved aerosol delivery of bioactive compounds. Improvements in targeting and gene transfer efficacy of viral vectors (potentially combined with aerosol delivery) further increase the dual-use risk.

It was noted that many of these developments represent a spectrum of threat agents that fall within the scope of both Conventions. In addition, it was observed that there is also convergence with other disciplines, such as informatics and engineering, not just chemistry and biology, which creates further complexity for the regime – particularly with regard to the coverage of Article I of the BWC. However, the central agents that cause harm are chemical or biological materials and for this reason convergence of the two regimes needs to be considered. It was observed that there could be difficulties in effective convergence of the the CWC and BWC until there is equal or full universalisation of both treaties. However, this was not an argument against developing better links between the two regimes so that both can learn from the successes of the other and cross-fertilization between the OPCW and the ISU encouraged.

In order to meet the challenges of advancing science and technology, it was argued that scientific advice needs to be a more formal and frequent part of the BWC process and that a compliance assurance mechanism was essential for maintaining the “web of prevention”. However, it was also noted that developments do not necessarily equate to an increased risk of misuse and it was important to avoid raising unnecessary alarm, while avoiding the dangers of complacency. Effective risk assessments need to be conducted.

This session ended with an overview of engagement with the scientific community during the intersessional process, focusing on the meetings of 2005 and 2008. It was argued that

without the opportunities offered by the intersessional process, far less progress would have been made toward engaging the scientific community in issues relevant to the BWC. In dealing with the challenge of convergence and the engagement of the scientific community, three key points were made:

- It is a dual-benefit opportunity. The need for sound advice in trends in science and technology provides an opportunity to engage scientists in the BWC process.
- Some of that process is already underway. Discussion of convergence is already occurring in some workshops.
- The work of scientific organisations must be complementary not competitive.

E. Concrete measures from the Intersessional Programme 2007-2010

This session began with an exploration of what concrete measures might be identified and adopted by the Seventh Review Conference in regard to the outcomes of the intersessional process. A number of concrete measures were identified:

- Consideration should be given to future annual meetings of States Parties. being able to discuss a wider range of topics
- States Parties should be encouraged to submit their CBMs and should provide a verbal update if they have not.
- States Parties should be encouraged to provide up to date information on their national legislation.
- States Parties should provide information on their national measures to ensure biosafety and biosecurity. It was noted that the ISU is trying to maintain record of nations’ biosafety and biosecurity approaches.

- States Parties should provide information on what steps they have taken nationally in regard to awareness raising, education and codes of conduct.
- States Parties should consider how to ensure that capacity building is taking place and whether the capacity within an individual State Party is adequate or not.

It was also noted that a BWC annual meeting, in addition to the MX and MSP, should be formalised in order to build momentum year on year, instead of having to over-compartmentalise a few aspects of the BWC in the intersessional meetings and defer any agreed decisions on actions until the subsequent Review Conference. It was said that consideration also needs to be given to how implementation of the convention can be taken forward. It was proposed that an accountability framework could be developed in which systematic and structured compliance reporting could be built into the BWC architecture (ie, during the proposed annual meetings).

The session continued with an exploration of the topics of the intersessional meetings 2007-2010.

1. Topics in 2007

Enhancing national implementation

A report on VERTIC’s Regulatory Guidelines for National Implementation of the BWC was provided. The Regulatory Guidelines serve as guidance to States Parties engaged in the process of preparing regulatory and administrative measures necessary to supplement their primary legislation for national implementation of the BWC, as well as obligations under Resolution 1540. Part I of the Regulatory Guidelines focuses on biosecurity, including guidance on the estab-

lishment of control lists for biological agents, toxins, and dual-use equipment and technology. Part II focuses on enforcement and includes guidance on establishing a National or Responsible Authority for the Convention and the establishment of a mechanism to respond to any biological incidents. The Regulatory Guidelines are available in five of the six official languages of the UN and are intended not as a set of model regulations, but rather as suggestions, tips and links to examples of best practices.

2. Topics in 2008

Measures to improve biosafety and biosecurity

WHO [in full if this is first use of acronym] activities in relation to laboratory biosafety and biosecurity, including the ongoing development of a guidance document on responsible life science research, was reviewed. The guidance document aims to raise awareness with different audiences and stresses the importance of openness and accountability as the best guarantees of progress and security. The guidance document also includes a self-assessment questionnaire to address needs and weaknesses within the research framework, research ethics, and laboratory biosafety and biosecurity. It was noted that there is no single solution or system for all countries and the guidance document is not intended as a global risk assessment. Rather, within the context of public health, it provides guidelines on the necessary elements of responsible life science activity.

The proposal by the Hamburg Research Group of global trade monitoring of biological dual-use goods was also explored. Based on

the fact that monitoring of trade data had helped to uncover Iraq's illicit BW program, it is proposed that such biological dual-use data be monitored globally. It was noted that trade data is registered using the Harmonized System (HS) which is maintained by the World Customs Organization (WCO) but that biological dual-use items are poorly described and identified in the HS nomenclature. It was suggested that customs codes for biotechnology and biological dual use items needs to be created in order to increase transparency of BW relevant trade. A proposal was developed by the Hamburg Group but, despite support from the WCO as well as some state and industry representatives, it was rejected on the basis that an NGO did not have the right to submit proposals to the WCO. The Hamburg Group are now trying to gain state sponsorship of the proposal.

Oversight, education, awareness raising, and codes of conduct

It was noted that one reason for the lack of awareness of dual use issues among the life science community is that biosecurity does not feature in university life science education. In order to address this deficiency it was argued that top-down State Party action will be required to bring awareness-raising on the radar. However, civil society can contribute productively by producing educational material and modules. Furthermore, it was suggested that the development of country and regional networks of lecturers interested in bringing biosecurity and dual use issues into their courses could generate a much faster development and uptake of material. The Bradford resource on developing an

educational module is now available online² and it is proposed that further use of online distance-learning technologies be applied to train-the-trainer programmes.

3. Topics for 2009

Promoting capacity building in the fields of disease surveillance, detection, diagnosis, and containment of infectious diseases

This session examined the EU Joint Action International Workshop (co-hosted with the ISU) on improving cooperation under Article X of the BWC for disease surveillance, detection, diagnosis and containment. Participants discussed three main themes that had emerged from the Meeting of Experts in August 2009 – coordination, integration of approaches to human, animal and plant health, and sustainability of cooperation. The workshop provided valuable input into how to make cooperation sustainable noting the challenges of commitment, political stability, human resources and infrastructure. It was also noted that coordination with NGOs and international organisations provided opportunities for information sharing.

4. Topics for 2010

Assistance in the case of alleged use of biological or toxin weapons, including improving national capabilities for disease surveillance, detection and diagnosis and public health systems

This session examined WHO contributions to the UN Secretary General Mechanism for investigation of alleged use of CBW. It was noted that WHO provides support to the UN Office of Disarmament Affairs in terms of information sharing and

updating operational guidelines for conducting investigations. WHO also participated in the UNODA training course in Umeå, Sweden on investigations of alleged use of BW, providing background on international health regulations and detailed descriptions of several public health emergencies. However, it was noted that WHO maintains public health neutrality and is not involved in decision-making with respect to alleged use. In discussion, it was noted that any consideration of alleged use needed to recognise the inherent difficulties of distinguishing between natural and deliberate outbreaks of disease and between the use of chemical or biological agents on the basis of initial reports. Furthermore, consideration needs to be given to the mandate of the OPCW under the CWC and its relationship to the

UNSG. A further point related to the logistics of reaching the site of the alleged use – the international logistical capabilities available in the UN Office for the Coordination of Humanitarian Affairs (OCHA) were noted.

The session was rounded off with the observation that an integrated approach to BWC implementation was important. It was noted that other relevant multilateral agreements (chemical, health, trade, environmental and transportation) relating to biological and chemical materials can all contribute to the implementation of the BWC.

Concluding Remarks

The workshop concluded with the observation that between now and the next BWC Review Conference

there was a window of opportunity to look ahead and for all States Parties to look comprehensively at all the possible elements such as improving CBMs, an accountability framework, measures to build confidence in compliance, annual meetings of States Parties able to consider the consolidated agenda and networks so as to move beyond the intersessional process so as to arrive at a stronger BWC with more effective mechanisms in which the BWC is a central element in an integrated health, security and safety strategy.

Notes

¹ <http://www.sussex.ac.uk/Units/spru/hsp/Harvard-Sussex-Program-draft-convention.htm>

² www.dual-usebioethics.net

Roundtable on Nuclear Weapons Policies and the NATO Strategic Concept Review

London, UK, 13 January 2010

Rapporteur's Report

by Martin Butcher

Introduction

The roundtable was co-hosted by Des Browne MP, convener of the Top Level Group and Paolo Cotta-Ramusino, Secretary General of the Pugwash Conferences. It took place at the House of Commons, London, on January 15, 2010. There were twenty participants, all by invitation and in their personal capacities, including former senior ministers and government advisers from all major political parties; senior retired military; and key UK government and NATO embassy officials.

This report is not a consensus document, but a summary of the main points of the meeting, observing Pugwash/Chatham House rules.

The goal was to define better the issues surrounding NATO nuclear strategy and to identify areas that need further immediate examination. The meeting had a special focus on topical issues arising from recent statements from the German, Belgian, Norwegian and Dutch governments on the future role of nuclear weapons in Alliance strategy and resulting opportunities for UK leadership on these issues.

Currently, the US Nuclear Posture Review is considering how best to balance extended deterrence for allies with Obama's disarmament agenda. The forthcoming NATO Strategic Concept Review is set to discuss the revision of NATO's nuclear strategy. This presents policymakers with a rare and significant moment where strong political leadership can achieve positive change. In particular, a new dynamic has been created by the leadership shown by the new German Foreign Minister, Guido Westerwelle, in placing the withdrawal of US tactical nuclear weapons from Germany and the review of NATO nuclear strategy at the heart of the new coalition government's foreign policy. He has raised these issues with NATO ministers bilaterally and in the North Atlantic Council.

The experts group convened by NATO Secretary General Anders Fogh Rasmussen and led by Madeleine Albright has held three major seminars, and will convene a fourth, to be held in Washington DC, which will include an examination of NATO nuclear strategy. They are also consulting widely with NATO governments and taking advice from outside experts. There is a need to ensure that there is political leadership in this process, and that it is not conducted exclusively by experts and officials. Pugwash and the Top Level Group therefore convened this roundtable to examine possibilities

and obstacles to the revision of nuclear strategy in Europe, and the opportunities for political leadership presented by the current processes.

Political Situation

The roundtable began with an assessment of the different pressures on NATO countries, and on the Alliance as a whole, with regard to its overall nuclear strategy; the US security guarantee to European allies; the presence of US nuclear weapons in Europe; and the practice of 'nuclear sharing' – whereby nominally non-nuclear nations are equipped and trained to use nuclear weapons in the event of war.

It was noted that these competing pressures include, on one side, a continued requirement by all allies for extended deterrence and a European desire for a visible symbol of the US security commitment to Europe. On the other hand, opposition to the continued US nuclear presence is growing amongst European publics. As one participant observed, the mainstream political position in Europe is now aligned in support of the disarmament programme outlined by President Obama in Prague. In the context of the NPT, there is also growing pressure from non-nuclear weapon states for NATO to end Cold War burden sharing practices and to reduce the role of nuclear weapons in defence strategy.

The Nuclear Posture Review/ Strategic Concept Review Circular Political Dynamic

It was noted that a circular political dynamic is developing, which is inhibiting both the United States and European NATO nations from moving forward with arms reduction measures. Europeans are waiting for the outcome of the Nuclear Posture Review (NPR) before actively pursuing talks on nuclear strategy in the NATO context. And some in Washington DC are using European hesitation to argue for both the maintenance of forward based nuclear weapons in Europe, and for a continuation of relatively aggressive, counterproliferation based nuclear use strategy.

A need was felt to change this dynamic, to allow a mutually reinforcing dialogue across the Atlantic to replace the current mutually weakening absence of dialogue.

In the context of these current reviews, it was noted that nuclear disarmament has two important elements – the reduction and elimination of the weapons themselves, and the reduction of the role of these weapons in defence strategy. It was hoped that both the NPR and the NATO Strategic Concept Review (SCR) would reflect this reality.

Credibility of the Current Tactical Nuclear Weapons Deployment as a Deterrent

The NATO Strategic Concept states that “Nuclear forces based in Europe and committed to NATO provide an essential political and military link between the European and the North American members of the Alliance.” This policy requires widespread participation by all allies, including peacetime basing of nuclear forces.

There was some discussion as to the credibility of this arrangement. Most participants felt that this strategy had been a useful and necessary component of NATO’s defence posture during the Cold War. However, that has now changed. NATO is so uncertain of public support that nuclear weapons are no longer mentioned. Ministers no longer engage in nuclear decision-making as they did in the Cold War. US nuclear weapons have been removed, without public attention, from Greece and the UK. Turkey has ended its participation in nuclear sharing. Now three of the five remaining basing countries have requested the withdrawal of weapons publicly. Most, including US EUCOM, believe that these weapons have no conceivable military use, and that their deterrent value is zero as it is widely perceived that they cannot be used.

These factors have combined to produce a situation where US nuclear weapons in Europe play a negative role in non-proliferation and disarmament debates, and no longer fulfill their intended role in Alliance security. The burdensharing element of nuclear strategy has to a great extent wasted away, while some (notably in Eastern Europe) continue to rely on it for their security—though participants recognized this is perhaps for primarily symbolic purposes.

It was noted that the Baltic republics and Poland, in particular, still see a strong value in a US extended deterrent, and in the presence of US nuclear weapons of Europe – this despite the dynamic described above. However, they also have strong security concerns, relating to issues including energy security or cyber security, for which nuclear weapons

have no relevance. There is little or no consideration in their national debates of the negative effect that US nuclear deployments in Europe play in relations with Russia. They tend to see security as a zero sum game.

It was also noted that ending US TNW deployments in Europe would set a precedent that nuclear weapons are only based in the possessor country’s own territory. This would be important to prevent the development of nuclear sharing arrangements by other countries in other regions in future.

Across Europe, it was noted that the political centre has coalesced around an end to TNW deployments on the continent, and looks to some other form of guarantee from the US.

Extended deterrence in Asia

The unstable security situation in North-East Asia was noted, and contrasted with the very stable situation in which most of Europe finds itself.

Despite this there are no US nuclear weapons deployed in Asia, and extended deterrence is provided by a combination of a conventional military presence and the US Trident submarine fleet.

A strong need for a step by step approach to reducing and eliminating nuclear dangers in East Asia is necessary and possible.

The need for political leadership

The roundtable recognized a need for political leadership in several different ways. One participant noted that, during the Cold War, individual leaders were able to have quite a dramatic effect on the international

security situation – for example, Ronald Reagan’s disarmament engagement with the Soviet Union, and Gorbachev and Shevardnaze on the Soviet side who brought a completely new perspective to global politics. Such leadership is still possible, and indeed necessary.

Elected leaders have a duty to provide leadership to their officials. Absent such clear leadership, the decisions of officials tend towards the status quo when revising documents such as the NATO Strategic Concept.

President Obama has a particular duty to provide continued leadership, in the US and the world, because he has raised expectations with his Prague speech, and with the UN Security Council debate and resolution on nuclear disarmament and non-proliferation.

He has difficulties because the Prague speech was balanced, and the world heard the disarmament message, while many in the US heard his promise to maintain a strong deterrent.

Political leaders in Europe and Asia have a duty to provide leadership at home, and to communicate their support for the Prague agenda clearly to the President and other players in Washington DC, so the US debate is not conducted under false premises.

US security assurances for Europe

The vast majority of participants noted that US allies in Europe and North East Asia still feel a requirement for a strategic nuclear deterrent. This can be fulfilled with US and UK Trident forces which, it was felt, are far more credible than forward deployed TNW.

There is a perceived need, widely felt in both regions, for concrete US security guarantees. While some in Europe would still like these to include a forward based nuclear option, this is now a minority opinion. Some governments in Europe are promoting the presence of US and NATO integrated missile defence, based on tactical and theatre systems such as the US Patriot and

Aegis systems, as a strong alternative to the continued presence of nuclear weapons in the continent.

Further Steps

Strong concerns were raised that the process of consultation on the NATO Strategic Concept Review is not providing opportunity for adequate political and public consultation. In particular, there is little or no political leadership from governments at present. The consultation process and seminars give an appearance, but not reality of open debate. In fact, the process is closed to all but a handful of officials and experts.

There was a commitment to discuss these issues further; to engage with elected and appointed officials in the US and NATO, as well as with the experts group, and to foster public debate on US and NATO nuclear strategy and the issues examined in this roundtable.

Participants

General Sir Hugh Beach, UK

Rt. Hon. Margaret Beckett MP, UK, Former Secretary of State for Foreign and Commonwealth Affairs

Rt. Hon. Des Browne MP, UK, Convener, Top-Level Group

Mr Martin Butcher, UK, Consultant

Mrs. Sandra Butcher, US/UK, Senior Program Coordinator, Pugwash

Mr David Cole, UK, Atlantic Council

Prof Paolo Cotta-Ramusino, Italy, Pugwash Secretary General

Admiral de Coriolis, France, Defence Attaché, French Embassy

Prof. John Finney, UK, Chair, British Pugwash

Lord Geoffrey Howe, UK, Former Deputy Prime Minister

Mr Gordon Jones, UK Student Pugwash

Lord Lee of Trafford, UK, Liberal Democrat Spokesperson for Defence in the House of Lords

Mr Kaoru Magosaki, Japan, First Secretary, Embassy of Japan

Prof. Götz Neuneck, Germany, Pugwash Council Member

Captain Adamantios Paidas, Greece, Defence Attaché, Greek Embassy

Mr. Nick Pickard, UK, Head of Security Policy Department, Foreign and Commonwealth Office

Ms. Shata Shetty, UK, Researcher, Top Level Group

Andrew Somerville, RUSI Research Assistant to the Nuclear Security Project

Ms Birgitta M Tazelaar, Netherlands, Counselor (Political Affairs), Royal Netherlands Embassy

Baroness Williams of Crosby, UK, Adviser on Nuclear Proliferation to Prime Minister Gordon Brown, member of the Top Level Group

Nuclear Disarmament and Non-Proliferation:
*What role might Europe play
 in light of the upcoming NPT Review Conference*

29 January 2010, Sala Rappresentanza, University Of Milan, Milan, Italy

Preliminary Agenda

Please note: this meeting is under Chatham House rules. While the topics under discussion may be mentioned outside of the meeting, no viewpoints or comments may be attributed to particular participants. Our goal is to better define what would constitute a successful Review Conference, identify areas that need further immediate examination, and what role European countries and institutions might play maximizing the likelihood of success.

This meeting is organized by Pugwash, the Department of Physics and the Department of International Studies of the Università degli Studi di Milano.

09.00–09.15 *Welcome and introduction*

09.15–10.45 *Status of and prospects for disarmament in the near-term*

- US-Russian arms control negotiations
- Tactical nuclear weapons, US nuclear weapons in Europe (incl. Italy). Prospects for their elimination and establishing a precedent for non-basing of nuclear weapons on other territories
- Creating environment for further multilateral disarmament

10.45–11.00 *Break*

11.00–12.00 *Deemphasizing nuclear weapons: reducing their military and political role*

- Are the US nuclear posture review and the NATO strategic concept review likely to do the job?
- What ideas should be put forward?

12.00–13.00 *Progress on stalled treaties*

- What can be done to promote Comprehensive Nuclear Test Ban Treaty (CTBT) Entry Into Force?
- What is the status of and prospects for the Fissile Material Cut-Off Treaty (FMCT)?

13.00–14.30 *Lunch*

14.30–15.30 *Eliminating weapons of mass destruction from critical areas: the case of the Middle East*

- Importance of the Middle East resolution
- Concrete proposals for how to move forward

15.30–16.30 *Enhancing the role of the International Atomic Energy Agency (IAEA) in avoiding proliferation*

- Promoting stronger control measures for all countries involved in nuclear energy programs
- The value of the additional protocol and of the multinational fuel cycle

16.30–16.45 *Break*

16.45–17.30 *Recommendations and concluding remarks*

For information:

Paolo Cotta-Ramusino: Paolo.Cotta@mi.infn.it

Claudia Vaughn: pugwash@iol.it

Participants

Amb. Wa'el N. **Al-Assad** (Jordan), Director, Disarmament & Multilateral Relations Department, League of Arab States, Cairo, Egypt

Amb. Sergey **Batsanov**, Director, Geneva Office, Pugwash Conferences on Science and World Affairs; Member, Pugwash Council; Member, International Advisory Board, Geneva Centre for the Democratic Control of Armed Forces (DCAF)

Dr. Hans **Blix**, former Head of the Commission on Weapons of Mass Destruction; former Head of the United Nations Monitoring, Verification and Inspection Commission (March 2000-June 2003); former Director-General of the International Atomic Energy Agency (1981-1997); former Swedish Minister of Foreign Affairs (1978-79)

Dr. Chiara **Bonaiuti**, Defense Economics, Istituto di Ricerche Economiche e Sociali (IRES)

Dr. Jeffrey **Boutwell**, Executive Director, Pugwash Conferences on Science and World Affairs, Washington, DC, USA; Member, Pugwash Council

The Rt. Hon. Des **Browne** MP, Member of Parliament for Kilmarnock and Loudoun, UK, Concurrent position: Convener, Top Level Group of UK Parliamentarians for Multilateral Nuclear Disarmament & Non-Proliferation, Special Envoy to Sri Lanka, Member of Privy Council.

Mrs. Sandra Ionno **Butcher**, Senior Program Coordinator, International Secretariat, Pugwash Conferences, UK; Director, Pugwash History Project

Prof. Francesco **Calogero**, Member, Pugwash Council; Professor of Theoretical Physics, University of Rome "La Sapienza", Rome, Italy

Dr. Paola **Ceragioli**, Via Pistrucchi 6, Milano, Italy

Dr. Emilio **Ciarlo**, Head, Legal Section, Foreign Affairs Committee, Partito Democratico, Italian Parliament, Rome, Italy

Prof. Paolo **Cotta-Ramusino**, Secretary-General, Pugwash Conferences on Science and World Affairs; Member, Pugwash Executive Committee; Professor of Mathematical Physics, University of Milan, Italy

Dr. Marco **De Andreis**, Director, Economic and Fiscal Studies, Italy's Customs Agency, Rome

Amb. Jayantha **Dhanapala** (Sri Lanka), President, Pugwash Conferences on Science and World Affairs, and former Under-Secretary-General for Disarmament Affairs at the United Nations (1998-2003)

Amb. Sergio **Duarte** (Brazil), UN High Representative for Disarmament, New York, NY; President of the 2005 VII Review Conference of the Parties to the Treaty on the Non-proliferation of Nuclear Weapons, in New York

Prof. John **Finney**, Emeritus Professor of Physics, University College London and the London Centre for Nanotechnology; Chairman, British Pugwash Group; Chair, WMD Awareness Programme; Chair, Nuclear Weapons Policy Liaison Group

Dr. Matteo **Gerlini**, Research Fellow, University of Florence, Department of Studies on the State, Italy

Dr. Venance **Journé**, Researcher, National Scientific Research Council (CNRS), Paris, France;

Mr. Sverre **Lodgaard**, Member, Pugwash Executive Committee; Researcher (and former Director 1997-2007), Norwegian Institute of International Affairs (NUPI), Oslo

Prof. Saideh **Lotfian**, Chair, Pugwash Council; Associate Professor of Political Science, and Associate Dean for Research, Faculty of Law and Political Science, University of Tehran, Iran

Dr. Maurizio **Martellini**, Secretary General, Landau Network – Centro Volta, Como, Italy; Professor of Physics, Università dell'Insubria

Dr. Steven **Miller**, Director, International Security Program, Center for Science & International Affairs (CSIA), Harvard University, Cambridge, Massachusetts, USA, Member, Pugwash Council; Co-Chair, U.S. Pugwash Group

Federica On. **Mogherini Rebesani**, Member of the Italian Parliament

Prof. Dr. Götz **Neuneck**, Physicist, and Member, Pugwash Council; Deputy Director and Head of the "Interdisciplinary Research Group Disarmament, Arms Control and New Technologies", Institute for Peace Research and Security Policy (IPSH), Hamburg, Germany

Dr. Alexander **Nikitin**, Member, Pugwash Council; Director, Center for Political and International Studies (CPIS), Moscow; Vice-Chairman, Russian Pugwash Committee of Scientists for Disarmament and International Security

Prof. Marco **Pedrazzi**, Professor of Public International Law, Faculty of Political Sciences, Milan University, Italy

Prof. Maurizio **Scaini**, Docente di Geopolitica, Corso di laurea in Scienze Internazionali e Diplomatiche, Facoltà di Scienze Politiche, Università di Trieste, Sede di Gorizia

Prof. Carlo **Schaerf**, Professor of Physics, University of Rome "Tor Vergata", Rome, Italy; Founder in 1966 (with Prof. Edoardo Amaldi) of The International School on Disarmament and Research on Conflicts (ISODARCO), and currently its Director and Chairman of the Board

Mr. Nikolai **von Schoepff**, Head of Division, Nuclear Arms Control and Non-Proliferation, Federal Foreign Office, Berlin, Germany

Amb. Mohamed **Shaker**, Chairman, Egyptian Pugwash Group, and Vice Chairman, Egyptian Council for Foreign Affairs (ECFA), Cairo

Amb. Tibor **Toth**, Executive Secretary of the Preparatory Commission of the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO), Vienna, Austria

Amb. Carlo Trezza, Chairman of the Advisory Board of the UN Secretary General for Disarmament Matters (2010) ; Currently Co-Director and Diplomatic Advisor to CASD (Italian Center for High Defense Studies), Rome, Italy

Prof. Mario Vadacchino, Associate Professor, Department of Physics, Faculty of Engineering, Politecnico di Torino, Italy

Mr. Franco Zallio, Senior consultant (Middle East & North Africa, Russia), Director, Global Watch; ISPI-Italian Institute for International Political Studies, Milan

OBSERVERS:

Mr. Riccardo Alcaro, Research Fellow, Istituto Affari Internazionali (IAI), Rome, Italy

Dr. Anna Giulia Micara, Adjunct Professor of International Law, European Law and International Trade Law, University of Milan

Dott.sa Claudia Nannini, PhD Candidate in International Law, University of Milan

dott. Andrea Spagnolo, PhD Candidate in International Law, University of Milano, Italy

dott.sa Sara Gradilone, PhD Candidate in International Law, University of Milano, Italy

Mr. Andrea Carati, Research Fellow, Security and Strategic Studies, Istituto per gli Studi di Politica Internazionale (ISPI), Milan, Italy

Mr. Simone Comi, Research Assistant, Security and Strategic Studies, Istituto per gli Studi di Politica Internazionale (ISPI), Milan, Italy

STAFF:

Claudia Vaughn, Program Coordinator, Rome Pugwash Office, Mobile: +39-333-456 6661, pugwash@iol.it

24th ISODARCO Winter Course on: Eliminating Nuclear Weapons and Safeguarding Nuclear Technologies

ANDALO (TRENTO), ITALY

9-16 January 2011

DIRECTOR OF THE SCHOOL:

Carlo Schaerf

University of Rome "Tor Vergata", Rome, Italy)

DIRECTORS OF THE COURSE:

Matthew Evangelista

Cornell University, Ithaca, NY, USA

Giorgio Franceschini

Peace Research Institute Frankfurt (PRIF), Germany

PURPOSE

ISODARCO has organized residential courses on global security since 1966 primarily in Italy but also in China, Germany and Jordan with the generous support of private foundations and international and national institutions and organizations. The courses are intended for those who would like to play a more active and technically competent role in the field of international conflict resolution as well as those who already have a professional interest and experience in this field. The courses are intensive, interactive, and interdisciplinary in focus. The subject matter spans the technical and scientific dimensions of these problems as well as their sociological and political implications.

After a decade and more during which the issues posed by nuclear weapons were largely eclipsed by concerns over ethnic wars and the threat of terrorism, there is renewed serious interest in the goal of nuclear disarmament.

The **2011 ISODARCO Winter School** will be devoted to the practical steps that should be implemented to achieve a nuclear-weapon free world and to the challenges and open questions on the road to nuclear zero.

If you wish to receive any additional information on the subject, please, send an E-mail to: isodarco@roma2.infn.it

Report on Consultations *Delegation of Former European Ministers*

LED BY THE RT. HON. DES BROWNE MP

Washington, DC, 1–4 March 2010

Report

by *Martin Butcher*
and *Shata Shetty*

Introduction

The Pugwash Conferences brings together, from around the world, influential scientists, scholars and public figures concerned with reducing the danger of armed conflict and seeking cooperative solutions for global problems. In line with its mission, Pugwash has over fifty years experience of Track II work in US-Russia and European arms control, non-proliferation and

disarmament initiatives, including supporting negotiation and implementation of seminal treaties such as the Non-Proliferation Treaty, the Comprehensive Test Ban Treaty and others. Pugwash has also, since its inception, worked to reduce the salience of nuclear weapons in defence strategies, and thus the risk of the use of nuclear weapons in conflict.

From March 1-4, 2010, Des Browne MP led a delegation of senior European leaders to Washington, DC to discuss European attitudes to nuclear arms and disarmament policy with the Obama administration.

The delegation included:

- Former UK Secretary of State for Defence Des Browne;
- Former Norwegian Prime Minister Kjell-Magne Bondevik;
- Former Czech Foreign Minister Jan Kavan;
- Former Italian Minister for European Affairs Giorgio La Malfa;
- Pugwash Secretary-General Paolo Cotta-Ramusino; and
- Pugwash President former Ambassador Jayantha Dhanapala.

They were joined by: Pugwash Executive Director Jeffrey Boutwell; Martin Butcher (rapporteur), Special Projects Coordinator, Pugwash; and Shata Shetty, (rapporteur), researcher to the Top Level Group of UK Parliamentarians for Multilateral Nuclear Disarmament and Non-Proliferation.

Members of the delegation met with senior administration officials at the National Security Council, the Department of Defense, the Department of State and the Office of Science and Technology Policy. Roundtable discussions were held at the Nuclear Threat Initiative, the Brookings Institution and the Atlantic Council. The British Embassy hosted delegation members for a working dinner.

The aim of the delegation was to understand the current situation within the Obama administration on



Jan Kavan, Kjell-Magne Bondevik, Des Browne, Paolo Cotta-Ramusino, and Giorgio La Malfa.

key items related to the agenda springing from the President's landmark April 2009 Prague speech on nuclear arms and disarmament, including:

- NATO nuclear policy and US nuclear deployments in Europe;
- Strategic arms negotiations;
- Entry-into-force of the Comprehensive Test Ban Treaty; and
- The May 2010 Non-Proliferation Treaty Review Conference.

As senior leaders from across the political spectrum, all of whom have had experience on policymaking on national security issues, they sought to ensure that European perspectives on these issues were heard and understood by their colleagues in the administration.

The following report is a composite of the perspectives and opinions expressed in meetings with senior administration officials, European diplomats, and with think-tanks and NGOs in Washington DC. It can serve as a background to understanding administration policy on nuclear arms and disarmament. As with all Pugwash meetings, there was no attempt to seek consensus and the views in this report should not be attributed to any one participant.

We would especially like to acknowledge the support of The Ploughshares Fund and the Connect US Fund for this visit. Pugwash would like to thank the Nuclear Threat Initiative, the Brookings Institution and the Atlantic Council for their support in organizing this delegation's programme.

The Nuclear Posture Review

The delegation's visit had been timed to coincide with the revised date announced by the Obama adminis-

tration of its Nuclear Posture Review (NPR), with the aim of engaging the administration and lawmakers on the substance and implementation of this key policy document. Instead, with the NPR postponed to allow for further debate on key issues, the delegation engaged with the administration on key issues under debate as the NPR is concluded.

The delegation offered some points based on mainstream European thinking on nuclear weapons policy. Noting that the US Nuclear Posture Review is now delayed until late March or more likely April, it was pointed out that people around the world are concerned. They are looking for this document to show progress toward implementing the President's agenda, and will be discouraged if it is a status quo document. Administration officials stressed that the President is committed to the whole Prague agenda, and that the goal is to reduce the roles and numbers of nuclear weapons; to strengthen deterrence and maintain a safe arsenal. They described the NPR as a roadmap for achieving the goals set out in Prague.

In particular, the delegation stressed that if the Nuclear Posture Review could send a strong signal that the purpose of nuclear weapons is only to deter the use of nuclear weapons, this will demonstrate that steps are being taken to decrease the salience of nuclear weapons in defence doctrines. A corollary of this is that non-nuclear weapons states parties to the NPT should receive guarantees that they will never be attacked by US nuclear weapons.

The delegation heard that there will be a reduction of the role of nuclear weapons in US strategy through changes in declaratory policy. These

changes could be considerable. The administration will stress that they wish to downgrade the role of nuclear weapons in relations with Russia and China. The discussion is framed as to whether the deterrence of other nations' nuclear forces is the sole role or the primary role of US forces. The new declaratory policy could be linked to stronger Negative Security Assurances in the context of the Non-Proliferation Treaty (NPT), under which non-nuclear weapon states party to the NPT are assured that they will not be attacked with nuclear weapons.

It was suggested to the delegation that if the number and role of nuclear weapons in the arsenal are reduced, then greater provision for conventional Prompt Global Strike (PGS) and ballistic missile defences will be necessary. There is still a debate about whether the PGS is a niche capability or whether it is the future of strategic deterrence as the US moves towards eliminating nuclear weapons.

Finally, it was made clear that the final outcome of the NPR will be a political decision for the President. The bureaucracy will present options to the President, and he is fully capable of taking big decisions that "leapfrog" the more cautious recommendations from departments.

Extended Deterrence in Europe

The delegation stated the desire of the mainstream of European politics across the continent to contribute to the success of the President's Prague agenda, and stressed the extent to which the disarmament portions of that speech had been welcomed in Europe. It was felt that this message may not be heard clearly enough in Washington DC.



Gary Samore, Shata Shetty, Kjell-Magne Bondevik, Des Browne, Giorgio La Malfa, Martin Butcher



Jayantha Dhanapala, Des Browne, John Holdren, Paolo Cotta-Ramusino, (Giorgio La Malfa), Martin Butcher, Shata Shetty.

The issue of the removal of forward based US nuclear weapons in Europe, a small remainder of the Cold War arsenal, is one where Europe can assist the President directly.

Delegation members also stressed the extent to which all NATO members have a responsibility to address nuclear issues, as all NATO nations rely on nuclear weapons for their defence. There is a clear desire in the administration for a debate on how to assure extended deterrence in new security circumstances. There is no question that allies continue to require some form of nuclear deterrent from the United States, and also a clear demonstration of US military support for the security of Europe.

The administration is keen to ensure that changes in arrangements for NATO deterrence do not prompt proliferation in Europe.

The delegation emphasized the need for strong political leadership to drive the NATO Strategic Concept Review process.

They also said that recent initiatives from the Norwegian, German, Belgian, and Dutch governments seeking to explore ways to guarantee European security without the presence of US nuclear weapons on European soil deserve attention and discussion.

The administration has engaged in the debate with key allies, and welcomes the chance in the NATO Strategic Concept Review to discuss the role of nuclear weapons in Europe. It was made clear that the German initiative was helpful, and the 5-nation letter to the Secretary General of NATO calling for debate was welcome. There are concerns that, if NATO does remove nuclear weapons from Europe, some newer NATO members might raise the need for enhanced contingency planning, a

strengthened NATO Response Force and a demonstration that the US defence guarantee is solid. This might complicate relations with Russia, who might perceive these moves as aggressive – given their new strategic concept that lists NATO as a major threat to Russia.

The delegation noted that newer NATO members tend to be viewed from Washington DC as a homogeneous bloc, which they are not. There is a diversity of opinions in central and eastern Europe on the nature of security threats, and relations with Russia. Administration officials noted that there is a tendency in the region to conflate Article V mutual defence guarantees solely with nuclear weapons. However, the delegation noted that it is far from true that all newer NATO members wish to retain nuclear weapons in Europe.

Administration officials stated that there is a need to address the small number of nuclear weapons based in Europe in the context of overall sub-strategic nuclear forces. Russia has some 5,000 such weapons, and the US 2,000. There are hopes that these can be included in future arms control negotiations. There are concerns that the seeming increasing reliance by Russia on non-strategic nuclear weapons, and their integration into warfighting doctrine, is complicating the possibility of withdrawal from Europe. The delegation expressed the opinion that the 200 or so weapons in Europe could be withdrawn to clear a path for negotiations on the larger number of weapons.

The delegation stated that the removal of US nuclear weapons from Europe can help establish a norm that no country should base its

nuclear weapons on foreign soil. This may be an important precedent to make at this time, before other countries follow the current US example.

Action this year to announce a withdrawal would be popular with the Non-Aligned Movement. It seems that the administration is ready to make one substantial move in the very short term, and then consider other smaller steps to complete withdrawal – possibly in conjunction with the deployment of the first stages of Phased Adaptive Missile Defences in Europe. It was said that ballistic missile defences can form part of a 21st Century system of deterrence, although there are some problems with this, notably the negative effect on future arms control and security relations with Russia.

It was made clear that modalities for drawing down nuclear weapons based in Europe, and potentially eliminating them, are the focus of administration discussions, but that there is a desire to avoid unintended consequences. In particular, there is concern to achieve this without destabilizing NATO.

The delegation heard that some newer NATO nations tend to equate the Article 5 mutual defence guarantee of the NATO treaty with nuclear deterrence, and that there is a desire and need to examine their security needs in depth to see how best these can be assured. As part of this, and to improve Allied solidarity, there is a need to adapt the Alliance to the full range of 21st century security issues. In that context, there was agreement that nuclear weapons are irrelevant to issues such as energy or cyber-security. The delegation stressed that NATO must do all it

can to meet the needs of newer members in the current and near future context. Administration officials also stressed the need to address concerns about Russia amongst some allies.

There was an awareness that budgetary issues, particularly the need to procure a new generation of Dual Capable Aircraft in the medium term, may make this debate moot. There are doubts in the administration that European nations are willing or able to purchase F35s, or to make the Eurofighter dual capable. There are also security concerns about the risk of terrorists seizing warheads based in Europe, particularly following the recent incident at Kleine Brogel in Belgium. These issues colour the NATO nuclear debate.

START Follow-On and Comprehensive Nuclear Test Ban Treaty

The delegation offered any assistance that might be useful to the administration in the achievement of the negotiation and ratification of the START Follow-on agreement, and on the ratification and entry-into-force of the CTBT.

It was also said that while Europeans understand that the US may find it necessary in the lead-up to the CTBT and START Follow-On ratification processes to increase funding to ensure the safety and reliability of its nuclear stockpiles, any assurances that can be made, and repeated at the highest levels, that this will not entail new nuclear warheads nor increased weapons capabilities will be very reassuring to allies and might possibly decrease the likelihood of continued arms races in other parts of the world.

Start Follow-On

There was clear frustration from the administration that the START follow-on agreement had not yet been concluded. It had been hoped that this would have been finished and forwarded to the Senate for ratification to proceed, since the Treaty is a relatively modest step intended to bring arms control back on track and prepare the ground for future agreements, rather than a transformative step itself.

Negotiations with the Russians are proving more difficult than had been anticipated, and perceived divisions in Moscow are fuelling that difficulty. There is concern that issues believed solved such as missile defence, have then been reopened by the Russian side.

The treaty will achieve a modest cut in launchers and reduction of around one-third in deployed warheads. Even this has proved difficult because of the unequal nature of the US and Russian arsenals. However, the treaty is mostly concluded with issues such as verification, telemetry (sharing of information on missile tests) and inspections the major outstanding problems.

There is also a need to work out a compromise on missile defence. If these are in any way limited by the treaty, then it will never pass the Senate. The Russians have concerns that, in the future, US missile defence plans could negate their nuclear arsenal and give the US a first strike capability over Russia. The administration is at pains to incorporate Russia into missile defence to the extent possible, and to stress that it is aimed at Iran and others, not at Russia. However, suspicion of the US runs deep in Moscow. However, this

acknowledgement of Russians concerns in no way translates to a readiness to slow missile defence programmes.

It was noted that the administration and NATO are keen to work cooperatively with Russia on missile defence. However, up to now, missile defences have been a very difficult issue which impede the possibility of progress in arms control and disarmament beyond the START follow-on agreement with Russia. The desire of some NATO nations to move forward, even without Russia, is a further complicating factor, as is strong support for missile defence programmes in the US Senate and a refusal to link them into arms control agreements.

The timing now means that START ratification in the Senate is uncertain at best this year, despite a willingness to move as quickly as possible in the Senate. It may be that mid-term elections mean that most hearings and a vote on START will not happen until 2011.

As President Obama said in Prague, there is a desire to work on a post-START agreement with the Russians, and this could cover non-deployed weapons, as well as tactical or sub-strategic weapons.

CTBT Ratification

With the delay on negotiation and ratification of the START follow-on agreement, the ratification of the Comprehensive nuclear Test Ban Treaty has slipped. The administration has begun to engage the Senate on this, but it will not come to the Senate before 2011 at the earliest. It is important that this is done well, as the treaty cannot be allowed to go to a vote and fail again, as that will kill the treaty.

The delegation heard that, with this as with other specific items on the President's agenda, support from Europe will be welcome and necessary to ensure success.

The President has boosted the budget for the National Nuclear Security Administration by \$5 billion over 7 years. The enhanced capacity to maintain the nuclear arsenal is intended to give confidence to the Senate that the US can keep its nuclear arsenal safe, secure and reliable without nuclear testing.

The JASON independent scientific advisers to the Department of Defence have said this is possible. The National Academy of Sciences is completing a report for Congress which will say the same thing.

Some concern was expressed that the funding boost for NNSA may have come too early for the CTBT, and that while it might help with arms reductions in the START process, it will have been discounted by the time the CTBT comes forward for a vote. Also that this strategy was pursued to no avail in 1999. However, administration figures were clear that they felt the President was laying the necessary groundwork for ratification of both treaties. In this context the question of the new capability under the Reliable Replacement Warhead programme was raised, and the delegation was assured that the President has terminated the RRW and no new weapons will be designed under President Obama.

The UK in particular, and possibly France, could be of assistance in demonstrating to Congress how a nuclear nation can maintain an arsenal having ratified the test ban treaty.

It was felt that lessons from the UK would be particularly valuable in this field, because of the tight links between the UK and US programmes. *A visit of senior Congressional staff to AWE Aldermaston and London for briefings on how the UK achieves this task in late 2010 or early 2011 could be useful.*

Non-Proliferation Treaty Review Conference

The delegation conveyed the need for a successful review conference, and the urgent need for concrete steps toward disarmament in the lead up to the NPT Review Conference.

Concluding the START Follow-On negotiations, progress on the CTBT and FMCT, and removal of US nuclear weapons from Europe are important steps in the right direction. In particular, consultations should be organized involving all the Middle Eastern states aimed at defining an "agenda of progress" for a Middle Eastern zone free of weapons of mass destruction.

These concerns were heard and understood by the administration. A desire for a successful review conference is shared. It was felt that, while the timing has not been what was wished for, that successful negotiation of the START follow-on and strong public support for CTBT ratification should contribute to a positive outcome. It was said that the administration is in a weak position with regard to Pakistan and progress on the NPT, because of the need for their assistance in other policy areas.

The administration wishes to make progress on the Middle Eastern resolution, and is working to this end with countries in the region. They are particularly conscious that this is important with regard to Iran.

There was an awareness of a need for progress across all pillars of the NPT – disarmament, non-proliferation and peaceful uses of nuclear energy. There is an understanding that the lack of specific progress since the Prague speech may lead to disappointment, and that expectations need to be managed. There is a hope that nations will understand that the administration is acting in good faith.

Conclusion

Consultations with the administration were extremely useful, as the delegation gained greater insight into current thinking in Washington, DC on a wide range of key issues in arms control, non-proliferation and disarmament.



Participants in the Atlantic Council roundtable led by Walter Slocombe (pictured on the right)

The delegation took away a deeper understanding of the administration’s strategy for implementing the agenda laid out by President Obama in Prague, and clarified ways in which Europeans can support that agenda.

They ensured that senior figures in the administration heard strong

messages of support from Europe, representing diverse geographic and political spread of opinion, for the Prague agenda in general, for specific steps to achieve the President’s goals for multilateral nuclear disarmament, and for ways in which Europeans can independently help create a positive environment for future progress.

Delegation Members

Mr. Kjell Magne Bondevik

Bondevik served as Prime Minister of Norway from 1997 to 2000, and from 2001 to 2005, making him Norway’s longest serving non-Socialist Prime Minister since World War II. Bondevik was a member of the Storting (Parliament) from 1973 to 2005. In addition to leadership positions in his party, the Christian Democratic Party, Bondevik was also Minister of Foreign Affairs 1989-1990, Minister of Church and Education, 1983-1986, also Prime Minister Willoch’s deputy 1985-1986, and state secretary at the Office of the Prime Minister during 1972-1973.

The Rt. Hon. Des Browne, MP

Browne has been a Labour member of Parliament since 1997. He served as Parliamentary Under-Secretary of State, Northern Ireland Office 2001-03; Secretary of State for Defence 2006-08 and Scotland 2007-08, and as the Prime Minister’s Special Envoy to Sri Lanka 2009-. He is the convener of the Top

Level Group of UK Parliamentarians for Multilateral Nuclear Disarmament and Non-Proliferation, which includes 16 former UK ministers.

Mr. Jan Kavan

Kavan was the foreign minister of the Czech Republic from 1998 until 2002, and deputy prime minister from 1999 until 2002. He was a member of the Federal Assembly from 1990-1992, a member of the Senate from 1996-2000 and a member of the Chamber of Deputies from 2002-2006. He was also the President of the United Nations General Assembly from 2002 until 2003. He is a member of the Czech Social Democratic Party (SSD).

Hon. Giorgio LaMalfa

LaMalfa has served as member of the Italian Parliament, 1972-1994 and since 1996. He served as a member of the European Parliament 1989-1992, 1994-1999 and as Budget Minister 1980-1982. He was Chairman of the Foreign Relations Committee of the Chamber of

Deputies 1983-1987, Chairman of the Comitato per la Legislazione of the Chamber of Deputies, 1998. He was Secretary General of Italy’s Republican Party, 1987-2001, Chairman of the Finance Committee of the Chamber of Deputies 2001-2005, Minister of European Affairs, 2005-2006, and President of Italy’s Republican Party 2001-2006.

Amb. Jayantha Dhanapala

Dhanapala is Pugwash President (2007 -), former UN Under-Secretary General for Disarmament Affairs, 1998 - 2003, Ambassador of Sri Lanka to the USA (1995-7) and to the UN Office in Geneva (1984-87). He was President of the 1995 NPT Review and Extension Conference and a member of both the International Weapons of Mass Destruction Commission (the Blix Commission) and the Canberra Commission on the Elimination of Nuclear Weapons.

Prof. Paolo Cotta-Ramusino
Cotta-Ramusino is Secretary General of the Pugwash Conferences on Science and World Affairs since August 2002. He is also Professor of Mathematical Physics at the University of Milano (Italy) and Senior Researcher at the Italian National Institute of Nuclear Physics. He was

formerly Director of the Program on Science, Technology and International Security at the Landau Network - Centro Volta (Como) (where he conducted research on the conversion of Russian Nuclear Cities and the development of programs for cooperation on energy-related issues in the Korean peninsula).

Dr. Jeffrey Boutwell, Executive Director, Pugwash Conferences.

Mr. Martin Butcher, Special Projects Coordinator, Pugwash Conferences

Ms. Shata Shetty, Researcher, Top Level Group of UK Parliamentarians for Multilateral Nuclear Disarmament and Non-Proliferation.

Talking Points

General Points

Europeans welcome the leadership of President Obama and the US administration in encouraging international progress on the move to a nuclear weapons free world.

Drawing on the bipartisan impetus provided by seminal pieces in the Wall Street Journal by Messrs Shultz, Kissinger, Nunn and Perry, this debate has been taken up in countries across Europe, and our delegation members are key leaders in promoting dialogue on these issues in our home countries.

However, there is a need to begin to implement these measures, and show concrete progress, both in decreasing the number of nuclear weapons, and their salience.

NATO and Nuclear Weapons

Recent initiatives from the Norwegian, German, Belgian, and Dutch governments seeking to explore ways to guarantee European security without the presence of US nuclear weapons on European soil deserve attention and discussion.

Strong political leadership must drive the NATO Strategic Concept Review process.

In the lead up to the Non-Proliferation Treaty Review Conference,

strong steps toward reducing the salience of nuclear weapons in US, British and NATO nuclear postures and concrete steps such as the removal of US nuclear weapons from Europe can help create a more positive process.

Removal of US nuclear weapons from Europe can help establish a norm that no country should base its nuclear weapons on foreign soil. This may be an important precedent to make at this time, before other countries follow the current US example.

Nuclear Posture Review

The US Nuclear Posture Review is now delayed until late March or April, and people around the world are concerned. They are looking for this document to show progress toward implementing the President's agenda, and will be discouraged if it is a status quo document.

If the Nuclear Posture Review could send a strong signal that the purpose of nuclear weapons is only to deter the use of nuclear weapons, this will demonstrate that steps are being taken to decrease the salience of nuclear weapons in force doctrines (this is reported to be a key point of contention in the NPR Review). A corollary of this is that non-nuclear weapons states parties to the NPT

should receive guarantees that they will never be attacked by US nuclear weapons.

Comprehensive Test Ban Treaty & START Follow-On

While Europeans understand that the US may find it necessary in the lead-up to the CTBT and START Follow-On ratification processes to increase funding to ensure the safety and reliability of its nuclear stockpiles, any assurances that can be made, and repeated at the highest levels, that this will not entail new nuclear warheads nor increased weapons capabilities will be very reassuring to allies and might possibly decrease the likelihood of continued arms races in other parts of the world.

Non-Proliferation Treaty Review Conference

It is urgent that concrete steps toward disarmament are taken in the lead up to the NPT Review Conference. Concluding the START Follow-On negotiations, progress on the CTBT and FMCT, and removal of US nuclear weapons from Europe are important steps in the right direction.

Consultations should be organized involving all the Middle Eastern states aimed at defining an "agenda of progress" for a ME zone free of weapons of mass destruction

Schedule of Meetings and Seminars

Please note that hyperlinks are provided in the text, indicated by underlined text. If you hold down the <control> button while clicking, you will be redirected to the relevant web page.

Monday, 1 March:

- 17:30 Coffee with Julian Borger, The Guardian
Des Browne, Giorgio La Malfa, Jan Kavan, Paolo Cotta-Ramusino
Hotel Palomar
- 19:30 Dinner with **Mr. Dominick Chilcott**, British Deputy Head of Mission
Residence of the Deputy Head of Mission

Tuesday, 2 March:

- 9:00–10:00 “Joint Assistant Secretary of Defense Roundtable” with principals engaged in US Nuclear Posture Review
Amb. Alexander Vershbow, Assistant Secretary of Defense for International Security and former US Ambassador to NATO
Michael Nacht, Assistant Secretary of Defense for Global Strategic Affairs
Julianne Smith, Principal Director for Europe and NATO, Office of the Under Secretary of Defense (Policy).
- 12:00–13:30 “European Perspectives on the NPR, Extended Deterrence and the New NATO Strategic Concept”
A luncheon roundtable, for 20–25, chaired Mr. **Walter Slocombe**, former UnderSecretary of Defense for Policy
Atlantic Council
- 18:00 Fourth Annual Christopher J. Makins Lecture
“The Transatlantic Community: Time for Some Lateral Thinking”
The Rt. Hon. Lord George Robertson of Port Ellen
Former Secretary General of NATO

Wednesday, 3 March:

- 08:45–10:00 Press and Media Breakfast (entire delegation)
Old Ebbitt Grill
- 10:30 Meeting with National Security Council
Gary Samore, Special Assistant to the President and White House Coordinator for Arms Control and Weapons of Mass Destruction, Proliferation, and Terrorism
- 12:00–13:00 Teleconference with former US **Secretary of State George Shultz** and former Senator Sam Nunn
Nuclear Threat Initiative
- 14:30–17:15 **Ellen Tauscher**, Undersecretary of State for Arms Control and International Security Affairs
Dr. **John Holdren**, advisor to President Barack Obama for Science and Technology, Director of the White House Office of Science and Technology Policy, and Co-Chair of the President’s Council of Advisors on Science and Technology (PCAST)
OSTP, New Executive Office Building.
- 19:00 Dinner with **Joan Rohlfing**, President NTI and senior staff

Thursday, 4 March:

- 09:30–11:00 “European Perspectives on Current Nuclear Issues”
Brookings Policy Seminar
Roundtable discussion 25-30
Amb. Steven Pifer, Senior Fellow, Foreign Policy, Center on the United States and Europe, Director, Arms Control Initiative

Report on Consultations *Delegation of Former European Ministers*

LED BY THE RT. HON. DES BROWNE MP

Moscow, 24–28 April 2010

Summary¹

A delegation of senior former European ministers visited key officials and experts in Moscow from 24–28 April 2010. The delegation included:

Des Browne (delegation leader), Former British Secretary of State for Defence;

Jan Kavan, Former Deputy Prime Minister and Foreign Minister of the Czech Republic;

Giorgio La Malfa MP, Former Italian Minister of European Affairs;

Vappu Taipale, Former Finnish Health Minister; and

Shirley Williams (Baroness Williams of Crosby), Former Adviser on Nuclear Proliferation to British Prime Minister Gordon Brown.

They were joined by Prof. Francesco Calogero, Former Pugwash Secretary General; Prof. Paolo Cotta-Ramusino, Pugwash Secretary General; Amb. Sergey Batsanov, Member International Pugwash Council; Prof. Alexander Nikitin, Member International Pugwash Council, and Sandra Ionno Butcher, Senior Program Coordinator, Pugwash.

Key Points:

The European middle ground is now in favor of multilateral nuclear disarmament. The delegation's purpose was to engage the Russian decision-makers and political elite in the process of exploring how to ensure European security without nuclear weapons.

There is strong support for the 're-set' of US-Russian relations as signified by the political importance of the New START Treaty. There are good chances for a positive vote on the treaty in the Russian Duma and Federation Council. There also is recognition that "there is no euphoria in Russia for nuclear disarmament."

While verification, transparency and irreversibility are all important elements of New START, the numerical decrease is not sufficient to ensure the current momentum toward further progress on multilateral nuclear disarmament can be maintained. Establishing a high-level independent citizen monitoring system may be useful as a confidence building measure, drawing on the experiences with the INF Treaty.

Planned synergy in US and Russian ratification is welcome. Debate on both sides is encouraged to proceed with sensitivity to the domestic political realities in both countries.

The issue of tactical (and, more broadly, non-strategic) nuclear weapons, and the interrelated areas of European security architecture, ballistic missile defenses, deterrence doctrine, and conventional force structures all need urgent and most likely asymmetrical exploration, especially as NATO undertakes its Strategic Concept Review.

Broader Russian concerns *vis a vis* NATO's force structure and capabilities must be addressed if there is to be future progress on nuclear disarmament. These discussions must be led politically if they are to overcome NATO's institutional dysfunctions.

The role of US nuclear weapons in Europe must be addressed urgently, and the concept of extended deterrence needs to be revisited. It is imperative to establish a principle that no country will base nuclear weapons outside its own territory.

The rest of the world is watching the US-Russian process closely. If there is a sense that nothing further will be accomplished on multilateral disarmament for the 7 years it will take for New START implementation, this will have a negative impact, not only on decisions among countries in other regions, but it may also affect arrange of issues, for example, forthcoming debates in the UK on warheads.

There was a shared desire to work cooperatively to address areas of common interests between Russia, US, and NATO on some of the most challenging issues, including the Iran situation, Afghanistan, addressing extremism, securing nuclear materials, etc.

While the overall message from the Russian side was sobering, the delegation was told that compromise solutions are possible “if you approach Russia with respect.” It is precisely this purpose that led to the delegation’s visit, and the intent behind the desire to work in partnership with Russian colleagues on ways forward via the emerging European Leadership Network, future Pugwash meetings, and other fora. The delegation was pleased with the variety of creative ideas that were produced and looks forward to continued interaction.

Introduction

The Pugwash Conferences² brings together, from around the world, influential scientists, scholars and public figures concerned with reducing the danger of armed conflict and seeking cooperative solutions for global problems. In line with its mission, Pugwash has over fifty years’ experience

of Track II work in arms control, non-proliferation and disarmament initiatives, including supporting negotiation and implementation of seminal treaties such as the Non-Proliferation Treaty, the ABM Treaty, the Comprehensive Test Ban Treaty and others. Pugwash also, since its inception, has worked to reduce the salience of nuclear weapons in defense strategies, and thus the risk of the use of nuclear weapons in conflict.

From 24-28 April 2010, former UK Defence Secretary Des Browne led a delegation of senior European leaders to Moscow to discuss European attitudes to nuclear arms and disarmament policy with key policy makers and experts. This delegation builds on an earlier similar delegation that visited Washington, DC 1-4 March 2010.

This project on “New Nuclear Reality” was organized by the Pugwash Conferences on Science and World Affairs, Russian Pugwash Committee, Center for Euro-Atlantic Security of the MGIMO University, Russian Political Science Association, and the Friedrich Ebert Foundation in Russia. We also would like to acknowledge the support of Connect US and the Ploughshares Fund who made this and related work possible.

The delegation included:

Des Browne, Former British Secretary of State for Defence;

Jan Kavan, Former Deputy Prime Minister and Foreign Minister of the Czech Republic;

Giorgio La Malfa MP, Former Italian Minister of European Affairs;

Vappu Taipale, Former Finnish Health Minister;

Shirley Williams (Baroness Williams of Crosby), Former Adviser on Nuclear Proliferation to British Prime Minister Gordon Brown.

Many of the delegates are engaged in a new European Leadership Network for Multilateral Nuclear Disarmament³ that Des Browne is convening. The ELN will bring together senior figures to help foster and coordinate debate within Europe and to increase the influence of the European voice on these issues in the US and globally.



Browne, Cotta-Ramusino, Calogero, Kavan, LaMalfa, Williams.

They were joined by Amb. Sergey Batsanov, Member International Pugwash Council; Prof. Francesco Calogero, Former Pugwash Secretary General; Prof. Paolo Cotta-Ramusino, Pugwash Secretary General; Prof. Alexander Nikitin, Member International Pugwash Council, and Sandra Ionno Butcher, Senior Program Coordinator, Pugwash.

Our meetings with a wide range of officials and experts took place at the MFA, the Duma (the lower chamber of Parliament), the Council of Federation (the upper chamber of Parliament), the Institute for Contemporary Development, International Federation for Peace and Conciliation, the Russian Academy of Sciences, and the Institute for Strategic Stability of the “ROSATOM” State Corporation.

General comments

The delegation’s message was to express the view that across the political spectrum **Europeans unanimously welcome the leadership Presidents Medvedev and Obama have shown** in negotiating the follow-on to START treaty and to express appreciation of the tremendous political significance of this ‘re-set’ of Russian-US relations and the impetus and energy it provides for further progress.

The delegation underscored the **urgency of cooperatively engaging**



Meeting with Deputy Foreign Minister Sergey Ryabkov.



Greeting by Acad. A. Andreev
(Photo: Russian Academy of Sciences)



Kavan, Williams, Kozyrev.

with policy makers and experts in Russia to help keep this momentum moving, not only in the ratification process for the so-called “New START” treaty, but also on other areas of shared objectives in creating conditions for an eventual world free of nuclear weapons, for promoting multilateral nuclear disarmament, revitalizing the Non-Proliferation Treaty (NPT) and securing nuclear materials. There is hope on the Russian side this may contribute to more widespread acceptance of Russia as an equal partner, sharing the same disarmament and non-proliferation goals with the international community. All sides seek to ensure that these perspectives will find their way into the US debates on these issues, accurately reflecting the new mainstream bipartisan European views in favor of multilateral nuclear disarmament.

The general tone of the Russian counterparts with whom our delegation met was supportive of the outreach made by the delegation, and there was overwhelming (though not unanimous) agreement that it is important to start to explore steps toward a nuclear weapons free world. However, this was counterbalanced by a seemingly a-synchronistic and extreme unease expressed by the lack of further progress in addressing **Russian concerns vis a vis NATO policy and force posture**, and

a reminder that there is still widespread belief in Russia that nuclear weapons guarantee security. As one participant said, “There is no euphoria in Russia for nuclear disarmament.”

While the current focus is on US-Russian negotiations, given the fact the two combined arsenals comprise nearly 95% of the nuclear weapons in the world, the delegation reinforced the message that US allies over the world are waiting for US invitation to play into that environment, and they also are ready to develop a narrative receptive to and consistent with views of the Russian Federation.

New START treaty⁴

Political significance is crucial

The recent agreement signed by Presidents Medvedev and Obama on 8 April 2010 is recognized on all sides as an important and positive political development.

In Russia it is widely perceived as a big political success, signaling a ‘re-set’ of relations between Russia and the US, and it will be the **first bilateral arms control treaty between the US and Russia (as opposed to the former Soviet Union) to enter into force.**

It brings back arms control, and predictability via the verification and transparency regime.

Irreversibility was also a major goal.

The treaty provides a guarantee against a new arms race. It provides a basis for future cooperation.

As one senior Russian policy maker stated, the Russians consider signing the treaty to be “the first major step toward setting up a global nuclear security system.”

The **political leadership provided by the two presidents** (who interacted personally during the 10 months of treaty negotiations on some 14 occasions) was perhaps unprecedented, and proof of the importance of strong political leadership in this area. Their relationship was referred to as “businesslike” and a “working interaction,” and this has developed an important “mutual understanding” between the two leaders.

The **treaty corresponds with Russian national plans to downsize their arsenal** due to technical realities of the life times of current weapons systems and is in sync with Russia’s modernization plans. For example, while START II (which did not enter into force) limited multiple-independently targetable re-entry vehicles (MIRVs,) this treaty does not.

Another important element of the “re-set” is that it was noted on the Russian side there is a lack of institu-

tional memory and involvement in arms control at a practical level, and that the Russians had to rely heavily on people who were involved in START I. Many MFA officials lack technical ability on these issues. Reengaging in arms control will help redevelop this expertise.

This corresponds with the experience of the delegates who are working to set up a European Leadership Network to similarly educate politicians in their countries. It was noted that a generation of political leaders have been “de-skilled” on these issues. **There are very few leaders in Europe who are sensitized to the complexity of issues involved with these discussions.** There is strong hope that the emerging European Leadership Network will include Russians as well.

Numerical limitations do not provide for significant cuts

This treaty was referred to as a “status quo treaty.” It codifies a “text-based parity.” While the treaty went further than limits discussed in the US-Russian understanding of July 2009, the cuts are not as significant as the Russian side originally sought. It allows for a total of **1550 warheads and a ceiling of 800 deployed and non-deployed delivery vehicles (of which 700 can be deployed)**, in reality the actual numbers of cuts are not significant in and of themselves. **These limits apply 7 years after the treaty enters into force, and the treaty will last for a duration of 10 years, with an option to extend for another five if both sides agree.**

The treaty has been presented as a **reduction of 30% in the limit on the deployed strategic nuclear arsenals of**

the two sides allowed under the 2002 Moscow Treaty.

Actual cuts will not be this significant. By some estimates⁵ under the agreed counting rules (especially the rule that allows bombers to count as only 1 warhead despite the fact they can carry many more) the actual number the US will cut might be approximately 100-200 warheads removed to storage⁶. This is perhaps the most controversial element of the agreement. The counting rules are a bit complicated, and estimates vary of the true impact of these cuts. Some Russian analysts say the cuts will be only on the US side (though Russian future plans are affected), and it is “reluctantly welcomed” by the Russian politically elite.

However, the US Federation of American Scientists analysis is that the US deploys 1650 and Russia deploys 1740, meaning in actual terms the US will need to reduce 100 warheads and Russia 190 to reach the New START limits⁷.

The 1550 ceiling for warheads was lower than the initial US offer, and Russian analysts say the very limited actual cuts will be made all on the US side (in return the US achieved its goals on verification issues). Agreed limits are “comfortably high” from the Russian perspective, it saves the Russians from a perceived need to build up their arsenal but allows continued development of MIRVs and other desired technology.

While recognizing the treaty’s strong political significance mentioned above, some participants raised concerns that the lack of significant decrease of the number of weapons in the nuclear arsenals of the US and Russia **must be followed quickly with plans for discussion of future reduc-**



Meeting at the Duma with Igor Puzanov MP (Committee for Defense) and Sergei Kolesnikov MP (Committee for the Protection of Health and co-president IPPNW).

tions. Failure to do so may lead to a negative reaction at the NPT Review Conference, and may not be significant enough to curtail modernization trends in other states with nuclear weapons.

The seriousness of the risks of nuclear proliferation requires that further steps for disarmament must be bold.

In addition, **rapid breakout capability exists.** This is especially true on the US side, which could for example within days redeploy by one estimate approximately 2,000 additional warheads to Trident and Minuteman III. (It was noted however that this in effect represents de-alerting of the majority of the arsenal.) Russia is not concerned about this breakout capability, because they expect to have a similar capacity by the end of the decade.

It is important to note, however, that in this “fragile” world situation, the 7 years provided is a long time and the states were encouraged to take full advantage of this time period.

Treaty provides a restart for limited verification and transparency measures

Unlike the 2002 Moscow Strategic Offensive Reductions Treaty (SORT), which one participant wryly referred



Pikaev, Nikitin.



Cotta-Ramusino, Browne, Williams, Kavan, Taipale at the Russian State Duma.

to as a “SORT-of” treaty), this new treaty importantly contains verification and transparency measures.

Unlike the START I treaty that has expired, the new treaty **does not allow for permanent inspections**, an initial US demand. This change addresses what Russians considered an unequal situation given that the US is not producing strategic nuclear weapons and Russia has started a new modernization program. The treaty does allow for on-site inspections, data exchanges, exhibitions and notifications of changes to strategic nuclear forces, for example.

Telemetry will be provided on a case-by-case basis, and each side can decide what to provide (including the option of providing no data). Russians were concerned that telemetry information from Russian tests could help the US design missile interceptors. It is believed the US gave in to this Russian demand largely due to the fact it has its own national technical means and the Russians do not.

The treaty contains real limits on strategic missile defense while encouraging cooperation on ballistic missile defense

It was pointed out that in recognizing the increasing importance of the “interrelationship between strategic offensive arms and strategic defensive arms” the treaty’s preamble may have created some problems for rati-

fication. It was noted that it is **important to recognize how difficult it was for Russia to conclude the treaty in the absence of the previous pillar of the Anti-Ballistic Missile Treaty.**

However, **Article V of the treaty provides a real limit on the converting strategic ICBMs and SLBMs for missile defense interceptors and vice versa.** This is considered a real limit, and one which (barring unforeseen elements in the as yet unavailable technical annexes) may in fact mean the end of plans, for example, for US Ground Based Interceptor program.

Ratification process

Presidents Medvedev and Obama reportedly planned to simultaneously seek ratification of the treaty. There was some concern expressed on the Russian side that this may be unrealistic given the realities of the ratification process in the Duma. However, there was a **strong signal for a cooperative engagement throughout the ratification process.** This was originally supposed to start in late April, but this was delayed due to Russian holidays, until mid-May.

The lower house of the Russian Duma began its first informal consultations of the treaty on 27 April. At the time of writing this report, the US President transmitted it to the Senate on 13 May⁸, and Russia is expected

to begin the formal process within a few weeks⁹.

There is **no serious opposition to the treaty expected in Russia.** Two-thirds of the Russian parliament are ready for it just because they support all governmentally initiated proposals. The remaining one-third may support being convinced by treaty’s essence. According to one senior policy maker, “This is a case where common sense should prevail over party.”

There was some discussion of the need for synergistic statements during the ratification process in both countries, as a way to help address possible concerns that may arise during debates. It was noted that the US political system is perhaps more deeply divided than any time since Vietnam, and the Obama administration has some very clear limits on what they may be able to accomplish.

Citizen monitoring

It would be positive to establish a Track 1½ process for monitoring of the New START treaty by influential non-governmental public figures, involving international network of former Ministers and Defense and Foreign Affairs, with an organizational role of International Pugwash, on the model of parallel public inspections conducted in the years of the implementation of the INF Treaty (the Intermediate and Shorter Range nuclear Forces Treaty).

Further progress on strategic nuclear disarmament

The UK and others stand ready to enter into **multilateral discussions**, perhaps after the next US-Russian treaty, but **if that time is too far removed, the current interest may not be able to be sustained.** The engage-

ment of France and China in the process needs to be nurtured.

It was noted also that the UK faces decisions in the next parliament on warhead issues, if there is a sense that multilateral nuclear disarmament is moving forward and that these warheads may be redundant then this could affect the thinking and attitudes toward making this investment. It therefore would be helpful to have more people who understand these issues visit the UK and make this argument.

The crucial role of the **involvement of civil society**, to the extent possible, was emphasized in our meetings.

Tactical nuclear weapons

Tactical nuclear weapons are outside current US-Russian discussions

The new treaty does not touch the issue of tactical nuclear weapons. Russia is estimated to have at least 2,000 tactical nuclear warheads, and the US approximately 500, of which 150-200 are deployed on the territories of its NATO allies.¹⁰

Some NATO allies have requested reconsideration of the basing of US nuclear weapons in Europe. However, Secretary of State Hillary Clinton reportedly linked any further action on this topic with the need for Russia to make significant moves in this area given the Russian numerical superiority. It is unclear how this topic is likely to be addressed in the NATO Strategic Concept Review. The recent US Nuclear Posture Review reinforced the role of extended deterrence, pledged to proceed with life-extension for the B-61 bombs, and said that “any changes to NATO’s nuclear posture should only be taken after a thor-

ough review within – and decision by – the Alliance”.

Our delegation was told by some interlocutors that the media reports of Clinton’s Tallinn comments were greeted in Russia with a “sigh of relief” as her public stand now removes any pressure the Russians might have felt to engage in discussions on tactical nuclear weapons.¹¹

Future progress on non-strategic/tactical nuclear weapons needs revitalization

It was clear from conversations across the spectrum of policy makers and experts that **there is neither much thinking nor enthusiasm in Russia on next steps for tactical nuclear weapons arms control**. It is equally clear that Russian policy makers do not feel pressure from the US to review their position on tactical nuclear weapons.

This was sorely at odds with the optimism that seemed possible when a delegation of senior European former ministers held a round of similar meetings in Washington, DC in early March 2010.

The prevailing approach in Russia is that as long as the US does not withdraw its tactical weapons to its own national territory as Russia has done, it remains an unequal situation. From this Russian perspective, discussions need to start from an equal footing.

To some extent this represents a genuine confusion on broader issues, and need for further discussion on issues such as: What is the role of US nuclear weapons based, for example, in Turkey? Why does Russia needs tactical nuclear weapons, for which missions and how many? One Russian expert asked whether from



*Former Czech Foreign Minister Jan Kavan and Former UK Defence Secretary Des Browne.
(Photo: Russian Academy of Sciences)*



*Vappu Taipale and Francesco Calogero.
(Photo: Russian Academy of Sciences)*

the Russian perspective they should want these weapons out of Turkey or if they might prove useful *vis a vis*, for example, Iran.

Some members of the delegation expressed an interest in holding a similar series of discussions with decision makers and experts in Turkey on these and similar issues and we plan to pursue this idea.

It was noted that **discussions on tactical nuclear weapons will bring arms control to a new juncture**, where it will no longer be adequate to discuss delivery vehicles, but discussion of warheads will be imperative.

A signal of willingness to engage on tactical nuclear weapons is essential

There is a largely silent majority view in the rest of Europe that US NATO weapons serve no purpose. There is intense private discussion within the alliance on what role they will play in 10 years, the length of time current

Secretary General will be in place. There are those who want to play a part in these discussions, but they need to better understand: if they pursue this issue, would it be reciprocated by Russia?

The delegation was also told that the current Russian reluctance to discuss non-strategic or tactical nuclear weapons is not necessarily unchangeable and the views within Russia are not necessarily homogenous. One participant said, **Everything can be discussed with Russia** “if you show enough respect,” meaning that Russia as a re-emerging global power wants to be an equal partner at the decision-making in international security area. However, some believe the military establishment won’t discuss this until the US withdraws its weapons from Europe and unless the UK and France join the discussions (addressing also some concerns about French sub-strategic nuclear weapons).

Possible ways forward include:

- **Linking informal tactical nuclear arms control with CFE Treaty follow up**, since if NATO might yield on the conventional side this may encourage Russia to give up some tactical nuclear weapons;
- Some parallel **unilateral actions could be considered**, however there was caution that there may be a need for full scale negotiations because there are not the same incentives today of the crisis situation that led to the last round of unilateral action;
- It might be possible to start with discussions for removing them to **central storage sites**;
- Tactical nuclear weapons can be



Amb. Sergey Batsanov.



*Shirley Williams (Baroness Williams of Crosby).
(Photo: Russian Academy of Sciences)*



*Alexey Arbatov.
(Photo: Russian Academy of Sciences)*

linked with non-deployed strategic weapons cuts;

- Emphasizing the need for progress given the **economic realities** (i.e. US NATO allies will find it extremely difficult to pay for the needed upgrades for the aircraft to carry the B-61s).
- Discussions could explore creating a **possible nuclear weapons free zone in Central Europe**.

There was a concern addressed, however, that it is **important not to overload the already difficult political agenda** by trying to address this issue now. From this perspective it might be preferable to explore options for future directions of arms control, including tactical weapons, and involving other nuclear weapons states, thinking in a non-symmetrical way.

Ballistic missile defenses

Though Russia formally does not consider NATO to be an adversary any longer, the Russians are quite seriously concerned about expanding NATO military infrastructure, and link questions to BMD to this context. To the extent possible, **Russia should be consulted**. The lack of consultation before decisions were taken on the new Bulgarian and Romanian deployments was noted. For example, the role of the recent Romania discussion highlighted an

area of tension. The presidents reportedly reached an understanding not to allow this to undermine their efforts.

There is concern in Russia as to future potential instability that may be created by continued massive US investment in BMD capabilities, and the perceived need to prepare their force structure to avoid a possible imbalance 20 years from now, particularly given concerns over possible space-based components.

There were some who thought that exploring further prospects for a **joint US-Russian BMD program** may prove useful, building on the NATO Tallinn ministerial discussions, and some felt Russia should respond positively. However, serious issues would need to be explored, including how the threat assessment would be conducted, how the chain of command would work in reality, etc. In other words, according to one participant, “the devil is in the political will.” The example was provided of problems encountered during the Yeltsin/Clinton initiated data exchange Center, when the project was killed for political reasons but with the technical pretext, relating to the tax status of the officers at the Center. Possible synergy could be explored on the military production side, to the economic benefit of both sides.

However, in this context it is imperative for further discussions to be held on the **feasibility and affordability of the proposed technologies**, and scientists can play an important role in advising their governments on this.

Conventional weapons/European security architecture

Conventional force balances affect nuclear arms control and disarmament

In a reversal from the Cold War dynamics, today Russia sees an overwhelming conventional imbalance *vis a vis* NATO forces. There are many who believe that progress on further nuclear disarmament, especially in the non-strategic realm, cannot be made without tying this in with discussions on conventional forces.

It was noted that Russia is the only country in the world which shares borders with 16 other countries, which explains its cautiousness when it comes to conventional forces strength/weakness.

Plans for new US conventional capabilities is a serious concern for Russia

The US plans to pursue the new “**Prompt Global Strike**” program is causing consternation in Russian circles. There is concern that adding conventional warheads to US ICBMs will hold Russian ICBMs at risk.

NATO posture is a major concern still in Russia and needs to be addressed jointly

NATO expansion (one participant preferred the term “opening”) to Eastern Europe, and “the remilitarization of the Eastern border” remains a significant concern to Russia. Russians asked the delegation to give a greater understand of

whether or not NATO policy is homogenous.

It was recognized that at a certain level, **NATO is politically dysfunctional** (a situation acknowledged by current NATO Secretary General Anders Fogh Rasmussen), and that the rules prevent a proper dialogue and debate on some key issues. At the ministerial level there is no discussion on the diversity of views within the alliance, and it is important to encourage NATO to develop a coherent political position.

It was noted that the NATO-Russia Council proved not to be effective enough, and it didn’t work as a mediator in political moments when such mediation was mostly needed, for example, in the days of the recent Russian-Georgian war and the respective increase of tensions.

Ways to **increase Russian participation within NATO** framework could be further explored. Some suggested the possibility of the ultimate goal of Russia becoming a NATO member or at least a partial member (integrated into the political and not military NATO structures). There is a danger, however, that such a broad “northern” alliance would increase insecurity among “southern” countries and may in fact be counterproductive in terms of creating international stability. The delegation members seek to send the message both to the US and to Russia that mainstream Europe will not oppose further Russian-NATO integration.

Dialogue could be renewed on discussions of **non-offensive defense**, and NGOs could play a significant role here, drawing for example on the Pugwash workshops on this issue during the Cold War.

There is a need to develop deeper understanding of the different viewpoints in NATO. All new NATO members do not have a **common perspective**.

There is a need to discuss and analyze threats and what collective security can do to meet those threats. Russia can and should play a role in those discussions. For example, there is need for continued discussion on Afghanistan within NATO and with its partners, and this is an area where further building on common interests could be explored.

There also was discussion that many in the rest of Europe tend to think of NATO as a collective security mechanism, with a role that is not primarily focused toward Russia. In this sense, in Russia the prevailing frame of mind with respect to NATO is perhaps more traditional.

The **Strategic Concept review process must be politically driven** and as open as possible. It appeared that to some extent certain Russian interlocutors were better briefed on the NATO Strategic Concept Review than some US NATO allies.

Russian proposal for a European Security Treaty

This treaty draft is meant to be the basis for discussions on a new architecture for European security that would include also soft security issues. Russia pushes the idea of the new all-European security treaty quite intensively, insisting that



Paolo Cotta-Ramusino.

existing old security institutions (like OSCE or NATO) do not work in time of actual political crises. Medvedev has said this draft is an “invitation to dance.” There has as yet been **inadequate response**.

One proposal for a way forward was to set up an international security commission, with subgroups/working groups, depending on priorities on agenda. This could be one more forum in which members of the emerging European Leadership Network might participate.

Extremism

It might be possible to further explore approaches to dealing with extremism. For example, a **joint roundtable was proposed** to bring together people who were involved in the **Northern Ireland** peace process and people engaged in addressing the situation in the **Northern Caucasus**. Parallels exist in the need for political solutions, despite one side having military superiority.

Some members of the delegation were concerned about news reports that the FSB was to be given increased powers. They were cautioned however that it is important in opposition to such moves, not to fortify the position you don't want to strengthen.

Nuclear doctrines

It is important to further explore the role of nuclear deterrence. It is due to the continued legacy of deterrence postures that political relations between the two countries remain hostage to military infrastructures of the Cold War. At the same time, some of the Russian counterparts were suggesting, that while deterrence can't be discarded overnight, a serious search for an alternative basis

for security should begin soon.

Negative security assurances will be important to further explore.

Some participants thought it might be useful to start discussions on a **treaty or UN Convention on non-use of nuclear weapons**, drawing from the experience of the 1925 Geneva Protocol banning the use of chemical and biological weapons, which contributed to creating norms that made possible the biological weapons convention (1972) and chemical weapons convention (1993). Others questioned the efficacy of such this and other no-first use pledges.

Middle East¹²

The delegation discussed prospects for setting an **agenda for progress** at the NPT Review Conference on this important topic, which was part of the deal in 1995 that led to indefinite extension of the NPT. A draft proposal for establishing a UN-appointed representative or advisor was discussed, along with options for a conference in the region on these issues.

There is an intersect of interests between Russia and Europe/US on Iran. This issue comes up in discussion of BMD threats, regional stability, and tactical nuclear questions.

There was some concern addressed that the political debate about Iran has become separated from the technical realities. **Russia could play a significant role** in bringing back some of the earlier ideas discussed. For example, it might be possible to revisit the idea of removing the LEU to Kish Island under the IAEA supervision. This idea was supported at the time by Russia. There is a

concern however, that the US and France are losing interest in this idea because their original goal was to remove LEU altogether from Iran and that Iran has now produced much more LEU.

Pugwash has proposed a **commission** in which **scientists from Iran and the West** could sit and discuss these issues, and there is a hope that Russian scientists and technical people could contribute to that debate. This process should be matched with encouraging the immediate implementation of the additional protocol in Iran.

It was recognized however that the time is drawing closer when UN Security Council may impose sanctions. Problems were discussed regarding the need to better identify an agenda for the process in the absence of a mutual interpretation between the E3+3 and Iran.

There is some discussion on the impact of a new UNSC resolution on the outcome of the Review Conference. Some warned that this could be risky and might have a consequence for the NPT that is not productive.

Looking forward

The bilateral US-Russian relationship is watched closely in other parts of the world. Further progress in arms control, disarmament, and revision of nuclear doctrines to decrease reliance on nuclear weapons will be needed to send the appropriate signals that the two countries take seriously their Article VI commitments under the NPT.

It is important to set a further process in motion now, as some raised the question, **What will happen after Obama and Medvedev?**

Schedule

24 April, Saturday

Main arrivals day

25 April, Sunday

14:00–17:00 Business lunch at the upper floor of the hotel, followed by orientation and introductory overviews:

- Overview, “**New Russian-US Nuclear Treaty: Problems and Prospects**” by Dr. Alexander Pikaev, director of the Nuclear Disarmament program at the Institute for World Economy and International Relations
- Overview, “**Current State of Russian-Western Relations (Russia-EU, Russia-NATO)**” by Victor Mizin, former MFA official, currently deputy director of the Institute for International Studies, Moscow State Institute of International Relations
- Overview of the **program of the visit and information on ministries and agencies** by Prof. Alexander Nikitin, member of International Pugwash Council, Director of the Center for Euro-Atlantic Security
- Delegation discussed potential international initiatives and approaches which it would be presenting to the Russian ministries and Parliamentary committees.

26 April, Monday

10:00–12:30 Discussion “**New Nuclear Reality and Russian-Western Relations**” at the International Federation for Peace and Conciliation (prospect Mira, 36)

Discussion was attended by ~20 Russian experts. Presentations by:

- Dr. Viktor Kamyshyanov, President of the Federation for Peace and Conciliation (presentation “**Public Monitoring of the Disarmament**”)
- Dr. Andrey Zagorsky, Director of the Center for War and Peace Studies, MGIMO University
- Dr. Sergey Oznobishnev, Director, Institute for Strategic Assessments (presentation on “**Russian Reaction to New Start: Time to Change Pattern in Russian-Western Relations**”)
- Evgeny Voronin, Ambassador (Ret.), Leading Researcher, Center for Euro-Atlantic Security (presentation “**New Russian Military Doctrine**”)
- Valery Zemskov, former official of the Russian MFA and of the Collective Security Treaty Organization, currently researcher at the Center for Euro-Atlantic Security (presentation “**New Patterns of Military Integration**”)

15:00–16:30 Visit to the **Russian State Duma** (lower Chamber of the **Parliament**). Meeting with MPs and experts from Defense and Security committees:

Meeting is co-chaired by MP Igor Puzanov (Committee for Defense) and MP Sergei Kolesnikov, co-president of IPPNW, Deputy Chair of the Committee of Protection of Health, Russia State Duma

17:00–18:00 Meeting with leadership of the **Russian Academy of Sciences** (Presidium of the Academy, Leninsky prospect)

- Meeting with two **First Deputy President of the Russian Academy of Sciences** (Acad. A. Andreev),
- Director of the Arms Control Program at the **Moscow Carnegie Center** Academy corr. member Alexey Arbatov
- Deputy Director of the **Institute for World Economy and International relations** Academy corr. member Vladimir Baranovsky

- Director of the **Institute for Oriental Studies** Dr. Vitaly Naumkin
- Director of the **International Nuclear Center at Dubna** Acad. Alexander Syssakyan

20:00 Dinner meeting (at the hotel) with **former Minister of Foreign Affairs of Russia** Andrey Kozyrev

27 April, Tuesday

10:00–12:15 Discussion at the **Institute for Contemporary Development**.

Topic of discussion: “**Russia in NATO Someday? Future for Russia-NATO Relations**”. Meeting is chaired by Institute’s Chairman of the Management Board Igor Yurgens. Presentations by:

- Dr. Tatiana Parkhalina, Director of the Center for European Security,
- Lt.-General (Ret.) Eugeny Buzhinsky, in 2001-2009 Chief of the International Treaties Department, Ministry of Defense
- Maj.-General (Ret.) Vladimir Rubanov, Chief of “Informexpertise”
- and by other ICD researchers.

13:00–14:00 Visit to the **Ministry of Foreign Affairs**.

Meeting with Deputy Foreign Minister Sergey Ryabkov (responsibility area – security and disarmament) and officials from the Security and Disarmament department of the MFA.

14:30–16:00 Visit to the **Council of Federation** (upper Chamber of the Parliament) Dr.Sergey Kortunov, Chief of Expert Group of the Committee on Defense and Security, Council of Federation, and Dr. Alexander Korotaev, Advisor to the Chairman of the Committee

17:00–18:30 Visit to the **Institute for Strategic Stability of the “ROSATOM” State Corporation** (former Atomic Ministry). Meeting with the former Minister for Atomic Energy Acad. Viktor Mikhailov and experts of the Institute for Strategic Stability.

Notes

¹ Please note: This report was written by the rapporteur, Sandra Ionno Butcher, Senior Program Coordinator, Pugwash Conferences on Science and World Affairs (sibutcher@earthlink.net). This is the rapporteur’s personal report of selected points of discussion from the delegation’s meetings in Moscow. As with all Pugwash meetings, there was no attempt to reach consensus. However, the report does seek to summarize the various positions presented. No position described herein should be attributed to any particular person.

² www.pugwash.org

³ <http://www.rusi.org/eln/about>. See also: www.toplevelgroup.org.

⁴ This treaty has been dubbed “New START” on the US side, without a corresponding term, except the “START-III”, on the Russian side.

⁵ Without access to classified information, it is not possible to be precise about these numbers.

⁶ See for example, analysis by Hans Kristensen, Federation of American Scientists. <http://www.fas.org/blog/ssp/2010/03/newstart.php#more-2826>

⁷ Ibid.

⁸ The US State Department’s website includes background materials: <http://www.state.gov/t/vci/trty/126118.htm>

⁹ http://www.upi.com/Top_News/US/2010/05/14/Russia-expected-to-ratify-START-in-June/UPI-34951273877689/

¹⁰ Federation of American Scientists, *ibid.*

¹¹ The actual position is more nuanced than media reports suggest. For example, NATO Spokesman James Appathurai said on 22 April 2010, “As I said, no decisions were taken. No specifics or specific proposals were put on the table, but one point was stressed by many and that is, of course, that this is a discussion that cannot just include NATO in the broader sense. NATO’s nuclear policy is for NATO to decide. But when it comes to reducing the

number or role of nuclear weapons in Europe, it is impossible to ignore Russia, which has, I believe, some 3,000 sub-strategic nuclear weapons in Europe, and there was a substantial amount of discussion about how both from a bilateral U.S.-Russia point of view, but in a larger context of reduction, Russia should be engaged in a discussion of reducing the number of nuclear weapons in Europe.... I did not say that there would be no moves without the Russians. I did say that Russia had to be taken into account when looking at the broader issue of reducing the total holdings of nuclear weapons in Europe. So big distinction.” http://www.nato.int/cps/en/natolive/opinions_62906.htm

¹² Please note this section pre-dates the recent announcement of the agreement between Turkey, Brazil, and Iran and the recent US announcement regarding sanctions.

Herbert Marcovich 1920–2009

Marcovich was an active member of the original Pugwash Continuing Committee and the later Pugwash Council. He attended more than 57 Pugwash meetings and played a crucial role in the Pugwash Vietnam backchannel, an initiative credited with laying the groundwork for the subsequent Paris peace negotiations.

Personal life and scientific career

Herbert Marcovich died in Rueil-Malmaison, near Paris, on November 7th, 2009.

He was born in Cairo on October 10th, 1920 in a cosmopolitan environment. He became a French citizen in 1933, thanks to his father, a newspaper editor. After his father's death, in 1935 the family moved to Alexandria.

In 1938, Herbert moved to Paris at the age of 18 to study medicine. The anti-Jewish laws obliged the family to flee the capital in 1942. After a few months in the free zone, where he worked in a factory in St Amand Montrond, the family tried to reach Spain across the Pyrénées. They were stopped and locked in the Castelmoulin jail. In late 1943, he managed to reach Algeria and he joined the free French army as a doctor in the Spahis unit with which he took part in fighting in the Vosges and Germany.

Upon his demobilisation, he resumed his medical studies; he had always been passionately interested in research. He joined the Centre National de la Recherche Scientifique in 1949 in the laboratory of Boris Ephrussi at the Orsay University (Paris). He then joined the department of Radiology and Oncology, working with Professor A. Lacassagne at the Pasteur Institute in Paris. From 1952 to 1967, he worked with Professor Latarjet at the Radium Institute on mutagenesis under the action of ionizing radiation. In 1967 he joined the Institute of Microbiology of the Orsay University (Paris). He was reinstated at the Pasteur Institute in 1975 as Head of the Laboratory in the recently established Genetic Engineering Unit. Until his retirement, he worked on cellular aging and oncogenic transformation of viral origin.

Author of numerous publications, he developed in 1976 with David Perrin, a unit of production “pure” water humorously called “gold water”, the patent for which was filed by the Institut Pasteur.

Marcovich was a man of vast literary culture, who loved music. His family writes that they “will never forget his mastery of the flute and cello.”

Involvement in Pugwash

According to Marcovich's family, “The dramatic events he experienced during the Second World War and his life-long commitment to research in basic sciences led him to engage early on in the Pugwash Conferences. He agreed fully with the organisation's perspective that scientific, rigorous analysis prevails in arguments of authority, ideology or power. Without vain illusions but with conviction, he shared the goal of preventing armed confrontation in solving conflicts of this world.”

Herbert Marcovich was involved with Pugwash from the earliest days, having been invited to become involved by Antoine Lacassagne, upon his return from the first conference in Pugwash, Nova Scotia in 1957. Marcovich expressed surprise, however, nearly 50 years later in an interview, that he was asked to be one of five members on the first continuing committee (which later became the Pugwash Council). He said that when he asked Joseph Rotblat why he was being chosen, Rotblat replied “because you answer my letters.” Marcovich laughed about this later, saying he was “not diplomatic at all,” and this shocked the Soviets. According to Marcovich, Artsimovich referred to him as the “bête noire”.

Marcovich went on to attend 57 international Pugwash meetings between 1959 – 2001, in addition to his involvement with the French Pugwash group. He would speak of the friendly attitude that existed at the meetings, despite many disputes with the Soviets. For example, he remembered discussions with Millionshchikov about the freedom in the West to read all sorts of publications.

Perhaps most famously, Marcovich played a key role in a little-known Pugwash back channel to Ho Chi Minh during 1967. Code named “PENNSYLVANIA”, this initiative involved Henry Kissinger, Robert McNamara, and President Johnson himself, in the search for an opening to dialogue with North Vietnam.

The initiative grew out of a small meeting in Paris in June 1967, that was originally scheduled to discuss the Six-Day War and Vietnam. The meeting went forward despite the fact the Six-Day War ended before the meeting was held. The meeting involved Androssian (USSR), Bauer (France), Doty (USA), Feld (USA), Marcovich (France), Millionshchikov (USSR), Perrin (France), and Rotblat (Pugwash Secretary-General). Henry Kissinger, who had been involved in prior Pugwash activities, was in Paris at the time, and was invited to come to the meeting.

At the meeting Kissinger made a comment that the White House would stop bombing the North, if Hanoi would commit to not take advantage of this pause to increase their infiltration to the South. The statement was considered interesting, and when Kissinger implied the North Vietnamese were not aware of this, discussion turned to what role Pugwash might play in discussing such an option with Hanoi. As Marcovich wrote in a 1976 article in the Pugwash Newsletter, “The desire to take advantage of any opportunity to be useful in such a tragic situation led to the proposal to send to Hanoi a Pugwashite to convey this information.” Through connections in French Pugwash, Raymond Aubrac was brought into the picture. Aubrac was a former leader of the French Resistance who was personal friends with Ho Chi Minh. Both Aubrac and Marcovich insist that they considered this only a proposal that arose from the Pugwash meeting, and not a direct message from the US government. Marcovich acknowledged in the 1976 piece that they were “[i]n ignorance of preceding secret negotiations and of the circumstances of their failure.”

Aubrac had rejected earlier approaches by other groups to use his personal connection with Ho Chi Minh, but he accepted this opportunity due to Pugwash’s reputation. What followed must have been a whirlwind of activity for Marcovich and the others. They had to receive funding for the trip (this came from a private dinner where high ranking people were asked to donate without being told why).

They were unable to get a visa to go directly to Hanoi, so they stopped first in Phnom Penh, where with the help of

an Australian journalist, Wilfred Burchett they were granted visas for Hanoi, and they traveled to Hanoi on 21 July 1967 and stayed there for four days of meeting with officials. Aubrac met privately with Ho Chi Minh. Upon their return to Paris, they spent a whole day debriefing with Henry Kissinger. There was a decision made to continue to use this channel. A planned second visit to Hanoi was apparently scuppered by the poorly timed US bombing of a bridge. The channel stayed open through October. The available volumes of official documents about PENNSYLVANIA show how seriously this channel was taken on the US side, and how high the connections reached. There was one point in the negotiations where Marcovich and Aubrac felt the wording of a document was improperly translated, resulting in “could” rather than “would”. Marcovich later said the temptation had been overwhelming to change this, but they remained true to the wording they were given. Following the collapse of this route, Kissinger continued to try to use Pugwash channels, this time involving the Soviets, into early 1968.

In a 1996 interview with Harry Kreisler, McNamara credited PENNSYLVANIA with laying the groundwork for the San Antonio accords, “the foundation for the start of the negotiations between North Vietnam and the U.S. in Paris.” In a book by McNamara and others, called *Argument Without End*, which is an interesting meeting between former US and Vietnamese officials, a former official in the Ministry of Foreign Affairs in Hanoi Nguyen Khac Huynh said, “PENNSYLVANIA did *not* fail. PENNSYLVANIA proved to us in the Foreign Ministry of the DRV—and to the leadership—that talks were about to begin. As such, it gave tremendous support and encouragement to those of us who were at that moment working on a negotiating strategy. We were very encouraged.... PENNSYLVANIA succeeded several months after it was initiated, because it provided the basis for beginning the Paris peace process. There is your answer. Our ears were not ‘deaf.’ We ‘heard’ you. And we gave you our answer after Tet.” Some have said that the initiative could not have moved forward because it coincided with planning that was underway for Tet. Marcovich said in his 1976 article that some asserted that McNamara’s departure from the US DoD was linked in some way to the ‘failure’ of PENNSYLVANIA.

Marcovich was an understated man. Despite his name having been known worldwide for a period of time when partial information about this initiative became available

in the early 1970s, he was humble about his role in this important history. He concluded the 1976 article with the following: “Since then, Raymond Aubrac has become an interested participant in the Pugwash Conferences. As for Henry Kissinger, M had the opportunity to see him twice in the White House, and to exchange Christmas greetings cards. Kissinger’s name has sometimes appeared in the international press. M went back to his lab.”

This obituary was compiled by former Pugwash Council Member Venance Journé (based on correspondence with Marcovich’s family) and Director of the Pugwash History Project Sandra Ionno Butcher, with input from researcher Gordon Wyn Jones.

Please note: a new edition of the Pugwash History series, focused on PENNSYLVANIA, is due to be published later this spring. Written by Sandra Ionno Butcher and Gordon Wyn Jones, it will go into greater detail, based on primary source documents and interviews.

Carl Kaysen (1920–2010)

Carl Kaysen, professor emeritus of political economy at MIT and a leading figure in US national security affairs for many decades, died on February 8, 2010 in Cambridge, Mass.

In the Kennedy administration in the early 1960s, Kaysen was deputy special assistant to McGeorge Bundy, the president’s national security advisor. Kaysen was also President Kennedy’s personal representative to talks that resulted in the 1963 signing of the Partial Test Ban Treaty to prevent nuclear bomb tests in the atmosphere, underwater, and outer space.

During the Cuban missile crisis in October 1962, Kaysen played a key role in coordinating White House foreign policy while the President, Bundy, Robert McNamara and other officials focused on the Russian nuclear missiles in Cuba.

Kaysen was born in Philadelphia and did graduate work at Columbia and Harvard universities before later teaching at both Harvard and MIT and being the director of the Institute for Advanced Study in Princeton, N.J. During World War II, Kaysen was involved as an intelligence officer in the strategic bombing campaign against Germany.

Prof. Kaysen first attended a Pugwash meeting in January 1964 – the 12th Pugwash Conference in Udaipur, India – and continued his involvement with Pugwash for the next 40 years. He was the cochair of the Committee on International Security Studies at the American Academy of Arts and Sciences in Cambridge, Mass.

Alexey Sissakian (1944-2010)

The Russian Pugwash Committee noted with deep regret the sudden death of Academician Alexey N. Sissakian, on May 1, 2010.

Son of a famous Soviet scientist, Nikolay, who himself participated in Pugwash activities in the 1950s and 1960s, Alexey Sisskian distinguished himself in the field of elementary particle physics as well as theoretical and mathematical physics. He was department chair at the Moscow Institute of technical physics and the National Research Nuclear University - MIPHI, and Professor at Lomonosov Moscow State University. For many years he was also a researcher at the Joint Institute for Nuclear Research (JINR) in Dubna, Moscow Region. In 2006 Acad. Sissakyan was elected as a Director of JINR.

Alexey Sissakyan was Acting Member (Academician) of the Russian Academy of Sciences (RAS) and member of the RAS Presidium. He was also elected as a President of Union of Scientific Cities of the Russian Federation.

In 2007 he began his active participation in the activity of the Russian Pugwash Committee. Acad. Sissakian was organizer and Chairman of the Dubna branch of the Russian Pugwash. In 2009 he was approved by the RAS Presidium as the First Deputy Chairman of Russian Pugwash Committee.

Acad. Sissakian helped organize several Russian Pugwash meetings, and he helped facilitate the visit of the President of the Pugwash Conferences, Amb. Jayantha Dhanapala, to Dubna in June 2009. He also participated at the 58th Pugwash Conference, held in the Hague, Netherlands, in April 2009.

His colleagues and friends shall miss not just his scientific talents, but his kind personality, poetic talent, and interest in science history.

*Mikhail A. Lebedev,
Russian Pugwash Committee*

Albert Tavkhelidze (1930-2010)

Academician Albert Nikiforovich Tavkhelidze passed away on 27 February 2010, age 80. Tavkhelidze was an outstanding physicist and science organizer, the Georgian Plenipotentiary to the Joint Institute for Nuclear Research (JINR, Dubna, Moscow Region), a member of the JINR Scientific Council, one of the establishers and a scientific supervisor of the RAS Institute for Nuclear Research, and the laureate of the Lenin Prize and the State Prizes. He was also President of the Georgian Academy of Sciences (1986-2006) and a member of the Presidium of the Academy of Sciences of the USSR.

Academician Tavkhelidze was active in the Pugwash Conferences for more than 30 years, beginning in 1976. From 1992 to 2006 he was Chairman of the Georgian National Pugwash Committee.

Tavkhelidze was devoted to science; he was notable for his rare sense of purpose and working capacity, and for his ability to unite people to implement ambitious goals. He was demanding to himself and to his colleagues, and at the same time, he was a kind and sympathetic person. He will be greatly missed by his colleagues, friends, and family.

*Academician Yury Ryzhov
Chairman, Russian Pugwash Committee*

Alexander Pikayev (1962-2010)

Dr. Alexander A. Pikayev, a leading Russian expert in disarmament and arms control, died at his home in Malta at the age of 48.

Dr. Pikayev was Head of Department of Disarmament and Conflict Resolution Studies of the Center for International Security at the Institute of World Economy and International Relations (IMEMO) of the Russian Academy of Sciences (RAS). In addition, he was an advisor to the deputy of the State Duma (Parliament) of the Russian Federation, Deputy Chairman of the Committee of Russian scientists for global security, and a member of the Scientific Council of the Moscow Carnegie Center.

For several years, Dr. Pikayev was Scientific Editor of the Russian version of SIPRI Yearbook, scientific leader of the IMEMO Yearbook on Disarmament and Security, and editor-in-chief of Nuclear Proliferation magazine.

Dr. Alexander Pikayev was very active in Pugwash Conferences programs and projects. Since 1996 he had participated in many international Pugwash workshops and consultations on nuclear forces and chemical weapons, and other key problems of international relations and security. Since 2001 he was a member of the Russian Pugwash Committee under the RAS Presidium.

*Mikhail A. Lebedev
Russian Pugwash Committee*

Eric Lars Tollefson (1921-2009)

Eric Lars Tollefson, a longtime member of the Canadian Pugwash group, passed away in Calgary, Alberta on September 20, 2009. Born October 15, 1921, in Moose Jaw, Saskatchewan and raised on the family farm near Mossbank, Eric earned his B.A. Honors and M.A. from the University of Saskatchewan and a Ph.D. in Physical Chemistry from the University of Toronto. He then worked with the National Research Council in Ottawa before moving to Tulsa, Oklahoma, where he worked with Standard Oil of Indiana. In 1967, Eric was invited to join the Chemical and Petroleum Engineering Department of

the University of Calgary and ultimately became Head of the Department. Eric was very concerned about the impact on the environment posed by the burning of fossil fuels, and the threat to civilization from nuclear weapons. He served as the first Chairperson of the University of Calgary Peace and Conflict Resolution Study Group and on the Executive of the Canadian Pugwash Group. Eric attended a total of ten international Pugwash meetings, from the *31st Pugwash Conference* held in Banff, Alberta in August 1981 to the *47th Pugwash Conference* held in Lillehammer, Norway in August 1997.

Pugwash Council for the 2007–2012 Quinquennium

EX-OFFICIO MEMBERS

President

Amb. Jayantha Dhanapala is a former Under-Secretary-General for Disarmament Affairs at the United Nations (1998-2003), and former Ambassador of Sri Lanka to the US (1995-97) and to the UN Office in Geneva (1984-87). He is currently Chairman of the UN University Council, a member of the Governing Board of SIPRI, and several other advisory boards of international bodies. He also has been a member of both the Canberra Commission (1996) and the WMD Commission (2006).

Secretary-General

Prof. Paolo Cotta-Ramusino is Secretary General of the Pugwash Conferences (since August 2002) and Professor of Mathematical Physics at the University of Milan. He is the former Director of the Program on Science, Technology and International Security, Landau Network-Centro Volta, Como, and former Secretary General of the Union of Italian Scientists for Disarmament (USPID).

Executive Director

Dr. Jeffrey Boutwell is Executive Director of the Pugwash Conferences on Science and World Affairs, former Associate Executive Officer at the American Academy of Arts and Sciences in Cambridge, and former Staff Aide at the National Security Council in Washington, DC.

Former Secretary General

Prof. Francesco Calogero is Professor of Theoretical Physics at the University of Rome "La Sapienza". Formerly, he was Secretary General of Pugwash (1989-1997), Chair of the Pugwash Council (1997-2002), and a member of the Governing Board of SIPRI (1982-1992).

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Amb. (ret.) Ochieng Adala, of the Africa Peace Forum (APFO) in Nairobi, Kenya, is former Permanent Representative of Kenya to the United Nations in New York (1992-93), former Deputy Secretary/Director for Political Affairs, Ministry of Foreign Affairs and International Cooperation (1988-92), and

former Ambassador of Kenya to the Arab Republic of Egypt, the Kingdom of Morocco, Algeria and Tunisia.

Amb. Sergey Batsanov is Director of the Geneva Office of International Pugwash, member of the Pugwash CBW Steering Committee, and member of the International Advisory Board of the Geneva Centre for the Democratic Control of Armed Forces (DCAF). He is former Director of Special Projects at the Organization for the Prohibition of Chemical Weapons (OPCW) in The Hague, and former Representative of the USSR/Russian Federation to the Conference on Disarmament, Geneva (1989-93).

Dr. Adele Buckley is a physicist, engineer and environmental scientist, and past Chair of the Canadian Pugwash Group. She was formerly Vice President of Technology & Research at the Ontario Centre for Environmental Technology Advancement (OCETA) in Toronto, Ontario, Canada.

Dr. Lynn Eden is Associate Director for Research and Senior Research Scholar at the Center for International Security and Cooperation (CISAC), Freeman Spogli Institute for International Studies (FSI), Stanford University in California, and co-chair of the US Pugwash Committee.

Prof. John Finney is Professor of Physics in the Department of Physics and Astronomy at University College London, Deputy Chairman of the British Pugwash Group, and Chair of the WMD Awareness Programme. His former positions include: Professor of Crystallography at Birkbeck College in London; Chief Scientist at the ISIS Facility of the Rutherford Appleton Laboratory; and Science Coordinator for the European Spallation Source Project.

Prof. Galia Golan-Gild is Professor of Government at the Interdisciplinary Center (IDC) in Herzliya, Israel, and Professor Emerita in the Department of Political Science at The Hebrew University of Jerusalem, where she was also Darwin Professor of Soviet and East European Studies, and Chair of the Department of Political Science.

Prof. Karen Hallberg is Professor of Physics at the Instituto Balseiro (Bariloche, Argentina), Research Fellow of the Argentine National Council of Science and Technology at the Centro Atomico Bariloche (National Commission of Atomic Energy), Fellow of the Guggenheim Foundation, Member of the board of the Latin American Center of Physics (CLAF), Commission Member of the International Union for Pure and Applied Physics (IUPAP), and member of the Bariloche Group for Science and World Affairs (Argentine Pugwash branch). She was formerly a member of the Board of the Argentine Physical Association.

Dr. Peter Jones is Associate Professor in the Graduate School of Public and International Affairs at the University of Ottawa, Ontario, Canada. He was formerly: Senior Policy Advisor, Security and Intelligence Secretariat, Privy Council Office, Ottawa (The Prime Minister's Department), Project Leader, Middle East Project, Stockholm International Peace Research Institute (SIPRI) and Desk Officer in the Arms Control and Disarmament Division Department of Foreign Affairs and International Trade, Ottawa.

Gen. (ret.) Dr. Mohamed Kadry Said is Head of the Military Studies Unit and Technology Advisor at the Al-Ahram Center for Political and Strategic Studies, Al-Ahram Foundation in Cairo, Egypt, and Member of the Committee of Strategic Planning of the Egyptian Council of Space Science and Technology.

Dr. Mustafa Kibaroglu is Associate Professor (non-proliferation, arms control & disarmament matters) in the International Relations Department of Bilkent University, Ankara, Turkey, and was formerly with the International Security Program & Project on Managing the Atom at the Belfer Center for Science and International Affairs, John F. Kennedy School of Government, Harvard University.

Mr. Sverre Lodgaard is former Director of the Norwegian Institute of International Affairs (NUPI) in Oslo, former Director of the United Nations Institute for Disarmament Research (UNIDIR) in

Geneva, and former Director of the Peace Research Institute of Oslo (PRIO).

Prof. Saideh Lotfian is Associate Professor of Political Science at the University of Tehran. She was formerly Deputy Director of the Center for Middle East Strategic Studies (1996-2002), and Visiting Iranian Fellow at St. Antony's College, Oxford University (2003).

Dr. Riad Malki is Minister of Foreign Affairs and Minister of Information of the Palestinian National Authority. He is also Director General of Panorama (The Palestinian Center for the Dissemination of Democracy and Community Development) in Ramallah, West Bank, Palestine, and formerly taught at BirZeit University School of Engineering.

Amb. Miguel Marin-Bosch is Professor of Disarmament and International Security, President of Desarmex (an NGO in México, D. F.), and a former Deputy Foreign Minister of Mexico.

Gen. (ret.) Talat Masood, Independent Columnist, Commentator and Analyst, Islamabad, Pakistan [formerly: retired Lt. General; Secretary, Defence Production Division, Ministry of Defence; Chairman, Pakistan Ordnance Factories Board; various command, staff and instructional appointments in the armed forces]

Prof. Amitabh Mattoo is Vice Chancellor of the University of Jammu, Jammu, J&K, India, a Member of the Prime Minister's Task Force on Global Strategic Developments, and Professor of Disarmament Studies at the School of International Studies, Jawaharlal Nehru University (JNU), New Delhi. He was formerly a Member of the National Security Advisory Board of India.

Dr. Steven Miller is Director of the International Security Program of the Belfer Center for Science and International Affairs at Harvard University's Kennedy School of Government, Editor-in-chief of the quarterly *International Security*, and Co-chair of the US Pugwash Committee. Formerly, he was a Senior Research Fellow at the Stockholm International Peace Research Institute (SIPRI), and

taught defense and arms control studies in the Political Science Department at the Massachusetts Institute of Technology.

Prof. Marie Muller is Dean of the Faculty of Humanities, former Director of the Centre for International Political Studies at the University of Pretoria, former Council Member of the Academy of Science of South Africa, and former (Founding) Chair of the Pugwash South Africa Group.

Prof. Götz Neuneck is a physicist working on international security issues and technical aspects of arms control. He is currently Project Leader of the "Interdisciplinary Research Group Disarmament, Arms Control and New Technologies" at the Institute for Peace Research and Security Policy (IFSH) in Hamburg. He teaches in the postgraduate Master's Programme "Peace and International Security", is a Member of the Council of the German Physical Society (DPG), and Deputy Chairman of the Working Group "Physics and Disarmament" in the DPG.

Dr. Alexander Nikitin is Director of the Center for Political and International Studies (CPIS), Vice Chairman of the Russian Pugwash Committee of Scientists for Disarmament and International Security, Professor at Moscow State Institute for International Relations, President of the Russian Political Science Association, Director of the Center for Euro-Atlantic Security of MGIMO University, and Board Member of the Russian Academy of Political Sciences.

Mr. Niu Qiang is Secretary General and Senior Researcher at the Chinese People's Association for Peace and Disarmament (CPAPD) in Beijing, China.

Gen. Pan Zhengqiang is Deputy Chairman of the China Foundation of International Studies, a retired Major General in the Chinese People's Army, and former Director of the Institute of Strategic Studies.

Acad. Yuri Ryzhov is President of the International Engineering University in Moscow, Chair of the Russian Pugwash Group, Academician of the Russian

Academy of Sciences, former Member of the Presidential Council of the Russian Federation, and former Ambassador Extraordinary and Plenipotentiary of Russia to France.

Prof. Ivo Slaus is Director of the World Academy for Southeast Europe Division, President of Croatian Pugwash, a Member of the Club of Rome, and a Fellow of the Academia Europea. Formerly, he was a Member of the Croatian Parliament, Chairman of the Parliamentary Subcommittee on Science, Higher Education & Technology, Professor of Physics at Rudjer Boskovic Institute, and Foreign Secretary of the Croatian Academy of Sciences & Arts.

Dr. Mark Byung-Moon Suh is a South Korean political scientist, Chairman of the Korea Trust Fund, and a Visiting Scholar at the Institute for Peace Affairs (IPA) in Seoul. He was formerly a Senior Researcher and Korean Co-ordinator of the Free University of Berlin in Germany, President of the Korean Pugwash Group, and member of the Presidential Advisory Council on Peaceful and Democratic Unification of Korea.

Dr. Tatsujiro Suzuki is Visiting Professor at the Graduate School of Public Policy (GRASPP) at The University of Tokyo, an Associate Vice President at the Socio-economic Research Center of the Central Research Institute of Electric Power Industry (CRIEPI) in Tokyo, and Co-Founder of Peace Pledge in Japan. He was formerly Professor at Keio University Graduate School of Media and Governance (April 2001-March 2004), Visiting Associate Professor in the Department of Quantum Engineering and Systems Science at the University of Tokyo.

Dr. Bob van der Zwaan is Senior Scientific Researcher at the Energy Research Center of the Netherlands (ECN) in Amsterdam and at Columbia University's Earth Institute in New York. He has held former research positions at the BCSIA at Harvard University, IVM at the Vrije Universiteit Amsterdam, CISAC at Stanford University, IFRI in Paris, and CERN in Geneva.

Calendar of Future Pugwash Meetings

2011

9-16 January 2011
Andalo (Trento), Italy

24th ISODARCO Winter Course on *Eliminating Nuclear
Weapons and Safeguarding Nuclear Technologies*

17-20 June 2011*
Berlin, Germany

59th Pugwash Conference on Science and World Affairs

* Tentative

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Professor Ivo Slaus
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Dr. Tatsu Suzuki
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Rome Office
Pugwash Conferences
via dei Riari 86
I-00165 Rome, Italy
Phone: **39-06-6878376
E-mail: pugwash@iol.it

Washington, DC Office
1111 19th Street NW
Suite 1200
Washington, DC 20036
Phone: **1-202-478-3440
Fax: **1-202-238-9604
E-mail: pugwashdc@aol.com

Geneva Office
16 rue de la Voie-Creuse
1211 Geneva, Switzerland
Phone: **41-22-919-7920
Fax: **41-22-919-7925
E-mail: pugwash@gcsp.ch

London Office
Flat A Museum Mansions
63A Great Russell Street
London WC1B 3BJ, England
Phone: **44-20-7405-6661
Fax: **44-20-7831-5651
E-mail: pugwash@mac.com