Editorial

The significance of the Conference on Facilitating the Entry into Force of the Comprehensive Nuclear-Test-Ban Treaty (Article XIV conference) in New York on 24 and 25 September 2009 cannot be overstated. It is being held in a new positive climate, a veritable renaissance of nuclear disarmament and non-proliferation. In particular, it is the first Article XIV conference in which the CTBT’s entry into force has become a realistic political objective in the near to medium term.

An increasing level of support for the Comprehensive Nuclear-Test-Ban Treaty (CTBT) is reflected in statements by groups such as the G8, the Non-Aligned Movement, and the European Union, and by the majority of delegations at the Preparatory Committee for the Nuclear Non-Proliferation Treaty (NPT) Review Conference in May 2009. The statement adopted by the Foreign Ministers participating in the September 2008 CTBT Ministerial Meeting was endorsed by 91 ministers, more than any previous statement.

Reflecting the renewed political prominence of the CTBT, this issue of Spectrum has an abundance of political and scientific contributions from prominent authors. No less than four foreign ministers explain why the CTBT is important to their countries: French Foreign Minister Bernard Kouchner and his Moroccan counterpart, Taieb Fassi Fihri, who will be jointly presiding over the Article XIV conference; Alberto Romulo, Foreign Minister of the Philippines and Carl Bildt, Foreign Minister of Sweden, the country currently holding the Presidency of the European Union.

With regard to the articles by political analysts, Chinese academic and nuclear arms control expert, Shen Dingli, explains why the CTBT should be ratified by China. James Goodby, former U.S. diplomat and specialist on nuclear non-proliferation and security issues, places the CTBT into the wider context of nuclear non-proliferation.

On the more scientific side, physicist and verification expert David Hafemeister presents a detailed analysis on the CTBT’s verifiability. Sidney Drell, physicist and longtime adviser to the U.S. government and the nuclear weapons laboratories, reflects on the Stockpile Stewardship Program, an important factor for the U.S. discussions on CTBT ratification. The North-West Pacific Tsunami Information Center in Japan explains how it profits from International Monitoring System (IMS) data for tsunami warning purposes. And finally, our own experts provide insights into the CTBTO’s findings on the May 25 North Korean nuclear test.

The global support for the CTBT is evident from the sheer numbers of signatures and ratifications: As of today, the Treaty has been signed by 181 States, 149 have ratified, and it is fast approaching the level of universality of the NPT and the Chemical Weapons Convention.

Since the fifth Article XIV conference in September 2007, four additional States have signed the CTBT: Barbados, Iraq, Timor-Leste and St. Vincent and the Grenadines. Nine have ratified: Bahamas, Dominican Republic, Malaysia, Barbados, Colombia, Burundi, Lebanon, Malawi and Mozambique. I applaud these countries for having taken this important step, each in itself a powerful beacon of support for the Treaty.

In particular, I would like to highlight Colombia’s ratification in January 2008. To enter into force, the CTBT must be signed and ratified by the 44 States listed in Annex 2 to the Treaty. These States participated in the negotiations of the Treaty in 1996 and possessed nuclear power or research reactors at the time. With Colombia’s ratification, the number of remaining Annex 2 States was reduced to single digits.

Let me turn to another important Annex 2 State – the United States. The support for the CTBT as expressed by President Barack Obama in his milestone speech in Prague on 5 April 2009, to “immediately and aggressively pursue U.S. ratification”, is of course extremely crucial. To achieve this goal, the growing bipartisan support for the Treaty is very important. The landmark Wall Street Journal op-eds by the four former U.S. foreign and defense policy leaders George Shultz, William Perry, Henry Kissinger and Sam Nunn in 2007 and 2008 started this movement. This and, most recently, indications of an increasing openness for reconsideration of the CTBT by some key Republicans, make U.S. ratification seem more likely than before.

All these developments have also stimulated discussions in some of the other remaining Annex 2 States. Indonesian Foreign Minister Hassan Wirajuda announced that his country would “immediately follow suit” when the United States ratifies.

But we should be careful not to let these positive signs slacken our efforts. Neither can ratification by the United States nor by any of the other countries be taken for granted. Determination, conviction and persistence at the highest political level in all CTBT supporting countries are needed now more than ever.

It is significant that the UN Security Council, which will gather at the Heads of State level at its meeting on 24 September in New York, will focus on nuclear non-proliferation and disarmament issues, including the CTBT. The meeting, which will be presided over...
by President Obama, will be held back-to-back to the Article XIV conference. Taken together, these two meetings will give unprecedented attention to the CTBT at the highest political levels. This is an opportunity that should not be missed.

Of course, the decision to sign and ratify the CTBT will remain the sovereign decision of each country. Already the security benefits derived from a global freeze on the qualitative development of nuclear warheads are a compelling argument for every country that values cooperation over weaponization in dealing with its neighbours.

But the real benchmark for the political value of any arms control treaty is its verifiability, and this is the CTBT’s greatest asset: Over 75 percent of the IMS’ 337 monitoring facilities have been certified to date. Due to immense progress in monitoring technologies, the IMS is already performing better than envisaged by the Treaty’s negotiators for the complete system.

Again, the facts speak for themselves. When the Democratic People’s Republic of Korea (DPRK) announced that it had conducted its second nuclear test on 25 May 2009, the CTBT’s monitoring system demonstrated its reliability by performing in a timely, integrated and coherent manner, as it had done at the first DPRK test in October 2006.

Twenty-three seismic stations succeeded in detecting the event immediately. Two hours later the first automated waveform data were made available to over 1100 secure user accounts in 110 Member States, in accordance with the Treaty’s time lines. Analyses sent to Member States later and in the form of bulletins, provided further information on the DPRK event. By the time the UN Security Council convened in New York, all members, big or small, permanent or non-permanent, had first-hand information from the CTBTO at their disposal.

Although a substantial number of noble gas systems had been built in the region and the system’s detection capability was excellent at the time of the second nuclear test, no radioactive noble gas was measured this time. Apparently none – or less than 0.1 percent – of the noble gases from the explosion had escaped into the atmosphere. However, the overwhelming seismic evidence alone would have provided a firm basis for a decision by the CTBTO’s future Executive Council to dispatch an on-site inspection.

The CTBTO proved that it is able to launch such an on-site inspection through the Integrated Field Exercise (IFE08) in September 2008, the most elaborate on-site inspection exercise ever conducted by the organization. Two hundred participants, including 40 inspectors and 50 tonnes of equipment, were transported to the remote former Soviet nuclear test site of Semipalatinsk in Kazakhstan.

The IFE08 tested all elements of an on-site inspection under conditions that were as realistic as possible. The exercise provided yet further proof of the CTBT’s verifiability. It has demonstrated that this final layer of the CTBT’s verification regime, on-site inspections, will serve as a strong and reliable deterrent to potential violators of the ban on nuclear explosions once the Treaty enters into force.

To stay abreast of the latest technological developments, the CTBTO has forged partnerships with relevant industries and the scientific community. A recently launched platform for interaction with the scientific community is the International Scientific Studies (ISS) project, a year-long series of independent assessments and studies of the CTBT’s verification regime. Approximately 300 scientists from roughly 80 countries participated in this project, which culminated in a conference in Vienna, Austria, from 10 to 12 June 2009. A separate publication on the ISS project will be available from the CTBTO in October 2009, featuring articles by many of the key scientists who are leading and coordinating the different studies.

Apart from demonstrating that the CTBT’s verification regime functions efficiently, the recent DPRK test also provided evidence of the international community’s zero tolerance for nuclear testing. Every nuclear test since the CTBT opened for signature on 24 September 1996 has been condemned unanimously by the UN Security Council. This condemnation reflects international public opinion, which is vehemently opposed to nuclear testing. In a global environment characterized by multilateralism, diplomacy and the peaceful resolution of conflicts, nuclear testing is simply out of place.

Nuclear testing concerns all countries, whether big or small, whether North, East, South or West. With dedicated support from all, entry into force of the CTBT can finally be reached. We will have made a clear, visible step on the road towards a nuclear-weapon-free world.

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