



Editorial



When Ratifying States and supporters of the Comprehensive Nuclear-Test-Ban Treaty (CTBT) gather this September in Vienna for the fifth Article XIV Conference, they will examine ways and means to accelerate the entry into force of the CTBT.

Why is it so important to join this steadily growing community of like-minded countries? Each and every signature or ratification strengthens the political value of the Treaty. Even without having entered into force, the CTBT helped to create a strong international norm against nuclear testing. The CTBT's raison d'être is to transform this norm into binding international law, thus helping to prevent unimaginable suffering to human beings and to the global environment. To achieve this, the ten remaining States whose ratification is imperative for entry into force need to join those who have already ratified the Treaty, recognizing its genuine non-proliferation and disarmament value, its verifiability and its contribution to international and regional peace and security.

In the past 11 years, the CTBTO Preparatory Commission has set up an elaborate verification system with global coverage that will verify compliance with the Treaty once it has entered into force. The system has already proven its relevance and maturity in the context of the nuclear test announced by the Democratic People's Republic of Korea (DPRK) in October 2006. With less than 60% of the stations in test mode operation, the event was – despite its low yield – well recorded by the system. A large number of seismic stations and the noble gas network, in combination with the atmospheric transport modelling, provided important data and data products, which were sent on time and in high quality to Member States.

The global reach of our verification system was underlined by the fact that noble gas readings were picked up by a station in Canada, more than 7500 kilometres away from the DPRK. While the North Korean event validated the internal procedures and technical capabilities of the system, it also underlined the urgent need for completing it. As of today, 210 monitoring facilities have been certified, meeting the stringent technical requirements of the CTBTO. Another 120 are in various stages of construction, many of them in remote locations, or remain to be built.

Due to the outstanding financial contributions of several Member States, the budgetary situation of the organization has dramatically worsened, thus endangering the completion of the verification regime. Today, our estimate is that US\$ 24 million or more of the 2007 total annual budget of US\$ 110 million, will be in arrears by the end of the year. In response to this serious situation and in order to achieve a balanced budget, I had to introduce stringent austerity measures, which will have a serious negative impact on programme activities, including the build-up, operation and maintenance of the monitoring stations. In the last nine months alone, we certified 33 new stations and installed a new global communications infrastructure and a new operations centre. This shows that with the necessary resources the system will grow as planned. I call on all Members of the Commission to redouble their efforts and encourage States Signatories to meet their payment obligations.

This special issue of CTBTO Spectrum focuses on the political importance of early entry into force leading up to the Article XIV Conference and the many challenges arising when building a global verification system. World-renowned personalities, such as United Nations Secretary-General Mr Ban Ki-moon and Dr Hans Blix, former Chairman of the Weapons of Mass Destruction Commission, give their views on the significance of the CTBT. Their contributions are complemented by a special feature analysis by Dr Rebecca Johnson, Director of the

Acronym Institute, and a respected voice from the non-governmental community.

Other internationally acclaimed figures and scientists writing in this tenth issue of CTBTO Spectrum are Ambassador Jaap Ramaker, Special Representative for the CTBT, on the upcoming Article XIV Conference, Professor Helga Kromp-Kolb, on the potential value of International Monitoring System data for global climate change and Dr Douglas Christie, on the latest findings in infrasound research.

This issue also provides insights into the often challenging work of the Provisional Technical Secretariat (PTS). It reports on climatic and environmental hardship that PTS staff members experienced when carrying out certification tests at an infrasound station in Cape Verde. It gives a vivid example of PTS maintenance activities by following a remote operating vehicle checking the cable of a hydroacoustic station in Australia, and it reports on newly established scientific exchange platforms. Finally, three PTS staff members describe the correlation between atmospheric transport modelling and noble gas findings in the context of the DPRK event.

There is no other monitoring system comparable to the one built by the CTBTO. Its uniqueness in terms of global reach, state-of-the-art detection technologies and participatory approach to the verification results is unmatched. I hope that the successful handling of the DPRK event by the PTS has convinced Member States that their significant investments in the verification regime were justified. Ultimately, the monitoring system's worth will only become fully realized once the Treaty enters into force. I therefore urge all States to use the upcoming Article XIV Conference as an opportunity to recommit themselves to achieving this goal.

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