

December 1987, during the first round of talks, Robert Barker, head of the US negotiating team, announced plans to hold joint nuclear test explosions in order to calibrate equipment to help in verifying any future limits on testing. The Joint Verification Experiment (JVE) would also aid in settling differences between the superpowers regarding their preferred methods for monitoring the size of atomic tests. The Soviets prefer to rely on seismic devices, while the United States prefers the Corrtex system of hydrodynamic measurements. The Soviets have, however, agreed to negotiate on-site hydrodynamic methods as a step toward a CTB.

At the Moscow Summit on 28 May to 1 June 1988, President Reagan and General Secretary Gorbachev noted that substantial progress had been made on a new protocol to the PNET. They instructed their negotiators to complete expeditiously work on this Protocol, as well as to complete a protocol to the TTBT as soon as possible after the Joint Verification Experiment had been conducted and analyzed. In the meantime, US Secretary of State Shultz and Soviet Foreign Minister Eduard Shevardnadze approved a schedule for the JVE, and reached an agreement on its conduct, allowing each side to measure the yield of an explosion conducted at the other party's test site using both teleseismic and hydrodynamic yield measurement methods.<sup>1</sup> On 17 August 1988 stage one of the experiment was undertaken at the Nevada site. The experiment was concluded with the detonation of a nuclear device at Semipalatinsk on 14 September 1988. Both US and Soviet officials judged the tests to be successful.

During a meeting in Washington with Soviet Foreign Minister Shevardnadze on 21 and 22 September, US Secretary of State Shultz stated that the Reagan Administration hoped to complete the verification protocols to the TTBT and the PNET and submit them to the Senate for ratification before the Administration left office in January 1989. One week later, President Ronald Reagan signed the FY89 military spending bill, which included a directive to the US Department of Energy to undertake a Nuclear Test Ban Readiness Program in order to ensure the reliability of the US nuclear arsenal should nuclear testing become prohibited in future.

By the end of 1988, work on the protocol for a PNET had been substantially completed. Progress on a protocol for the TTBT has been slower, due to the complexity of the negotiations and the US insistence that it be permitted to use Corrtex to monitor all tests above 75 kt. Resumption of the talks is expected following the Bush Administration's review of the negotiations.

Additional efforts to limit nuclear testing have been made in multilateral forums. In 1983, the UN Conference on Disarmament (CD) established a CTB working group. Now called the Ad Hoc Committee, the group has been unable to agree on a programme of work and has not met since 1983.

Despite the inability of the CD to agree on a mandate for the CTB working group, the Group of Scientific Experts (GSE)--a CD body charged with developing a global system of seismic monitoring--met in Geneva from 7 to 18 March 1988. Building on its work of the previous year, the Group continued to develop the conceptual design of a modern, international, seismic data exchange system, and reached agreement on the functional specifications of a global system. In addition, the Group agreed to undertake

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<sup>1</sup> "U.S., Soviet Union Sign Joint Verification Experiment Agreement." *Department Of State Bulletin* (August 1988), p. 67.