

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 negotiated on-site hydrodynamic methods as a step toward a CTBT.

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.¹ 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.

After their two-day meeting at Jackson Hole, Wyoming, in September 1989, Secretary of State James Baker and Mr. Shevardnadze announced that the verification protocol to the PNET had been accepted *ad referendum* by their negotiators. They also announced that discussions on the protocol to the TTBT were proceeding well and that agreement had been reached on three methods of verification: hydrodynamic methods, seismic methods and on-site inspections. They did not reveal from what yield level such recording methods might be authorized, but agreement was said to have been reached on that point.

On 22 January 1990, the Bush Administration announced that discussions on further limits on nuclear testing would not begin immediately following signature of the protocols to the PNET and TTBT, which was scheduled for June 1990 during the Bush-Gorbachev Summit in Washington. This decision was not well received by the US Congress as it contradicted the promise made by President Reagan in 1986 (which he reiterated to the Soviet Union in 1987) that the United States would continue stage-by-stage negotiations on further limits once the verification protocols to the TTBT and PNET were ratified. The Bush Administration explained its decision on the grounds that it was impossible to establish further limits without harming US national security. The US Administration stated that new complex verification techniques would be included in the protocol to the TTBT and that they wished to be able to analyze them for some time before determining further measures to be taken.

On 1 June 1990 in Washington, Presidents Bush and Gorbachev signed the verification protocols to the TTBT and the PNET. Under the provisions of the PNET protocol, the parties are

¹ "U.S., Soviet Union Sign Joint Verification Experiment Agreement." *Department of State Bulletin* (August 1988), p. 67.