

## 5. NUCLEAR TESTING

### BACKGROUND

In the 1950s, the United States and Great Britain began negotiations with the Soviet Union to ban all forms of nuclear testing. While efforts to conclude a Comprehensive Test Ban Treaty (CTBT) proved unsuccessful, the negotiations bore some fruit with the signing of the Partial Test Ban Treaty (PTBT) in 1963. The PTBT prohibits the testing of nuclear devices in the atmosphere, under water and in outer space. As of January 1990, the Treaty had 119 states parties, although two nuclear weapons states -- France and China -- have yet to sign.

Further progress on the limitation of nuclear testing came when the United States and the Soviet Union signed the Threshold Test Ban Treaty (TTBT) in 1974, and the Peaceful Nuclear Explosions Treaty (PNET) in 1976. The former limits underground nuclear testing to 150 kt, while the latter does the same for so-called "peaceful nuclear explosions." Neither the TTBT or the PNET has, however, been ratified by the US Senate.

Efforts to achieve more ambitious limitations on nuclear testing continued when the Carter Administration reopened trilateral negotiations on a CTBT in 1977. Although some headway was made in developing a draft treaty, strong domestic political opposition in the United States was one of the main factors ensuring that progress was limited. These negotiations ceased with the advent of the Reagan Administration.

On 6 August 1985, the Soviet Union announced a unilateral moratorium on nuclear testing, later extended three times. Yet the Soviet initiative failed to prompt the United States to take similar action, or to resume negotiations on a CTBT. Soviet testing resumed on 28 February 1987. The US Congress has put forth proposals seeking a moratorium on nuclear tests above one kiloton, but these have never been accepted by the Administration.

The Reagan Administration maintained that, although it regarded a total ban on nuclear testing as a long-term objective, the need to ensure weapon reliability and national security required continued testing. In addition, the Administration contended that progress on a CTBT could be achieved only in stages: first, by securing more stringent monitoring provisions for the TTBT and the PNET; then, by negotiating intermediate limitations on testing; and finally by pursuing a total ban as part of a broad, effective disarmament process.

While the Soviets initially opposed the US government's approach to limits on nuclear testing -- favouring instead immediate negotiations on a total ban -- the prospects for accommodation began to brighten by the summer of 1986. One year later, the Soviets had largely acceded to the US position on how negotiations toward a CTBT should proceed.

On 17 September 1987, the two sides agreed to begin "full-scale stage-by-stage negotiations on nuclear testing" before 1 December 1987. The negotiations would begin by searching for mutually agreeable procedures for verifying the TTBT and the PNET. On 9