Under a CTBT regime, the nuclear-weapon States would be expected to maintain high reliability of nuclear weapons to ensure deterrence. However, if confidence in the stockpiled weapons were to be gradually eroded, the probability that a nuclear-weapon Power would launch a first disarming nuclear strike would be further diminished.

A CTBT would provide a tangible proof that the nuclear-weapon Powers have decided to proceed from quantitative cuts of their arsenals to qualitative constraints.

By contributing to confidence building, a CTBT may facilitate the negotiation of other multilateral arms control measures. It is noteworthy that no multilateral nuclear arms control agreement of a global nature has been concluded since 1980.

A CTBT would signal a considerable reduction in the human and material resources which are spent on the development and modernization of nuclear weapons. The savings would be substantial; the cost of a single nuclear weapon test explosion is estimated at 30-100 million US dollars.

The conclusion of a CTBT would fulfil the pledge undertaken by the parties to the 1963 Partial Test-Ban Treaty to negotiate a total ban on nuclear weapon test explosions. It would also go some way towards meeting the obligation undertaken by the nuclear-weapon Powers under the 1968 Non-Proliferation Treaty, and included in United Nations resolutions, to bring about nuclear disarmament.

In the early days of the nuclear era, a CTBT would have had a major impact on limiting the numbers of nuclear weapons and their overall capability. Today, the major reductions that are underway in the United States and former Soviet armouries are more significant than a CTBT would be at this moment. Nevertheless, a CTBT would add to the benefits of these reductions.

II. Arguments for further testing - an assessment

Many reasons have been advanced in favour of nuclear testing. Among the main arguments are: to support the development of new nuclear weapons, to ensure confidence in the nuclear stockpile and to improve the safety and security of nuclear weapons. Some of these arguments have merit. However, they must be weighed carefully against the arguments in favour of a CTBT.

Looking back over more than three decades of occasionally intense public debate over nuclear test limitations and the advisability of a CTBT, it is striking how the arguments against a CTBT are now weakened.

During the 1980s the traditional objection in the United States to a CTBT (lack of verifiability) was supplemented by a long list of objections. Each is considered in turn below.