## A Review of Progress in Disarmament: 1975-1980

by J. Mårtenson

In the five years since the last Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, disarmament efforts have continued at various levels, multilateral, bilateral and regional. While the goal of a general and complete disarmament is still not in sight, there have been, during this period, some limited successes.

In 1976 for instance, Soviet-U.S. negotiations succeeded in producing two agreements, the Treaty on the Limitation of Underground Nuclear Weapon Tests (also known as the "Threshold Test Ban Treaty" or TTBT) and the Treaty on Underground Nuclear Explosions for Peaceful Purposes (the "PNE Treaty"). The former was, in fact, signed on 3 July 1974, but since the two treaties are interrelated, its ratification was not sought until the signing of the latter on 28 May 1976. The threshold Treaty removes the possibility of testing new or existing nuclear weapons going beyond the fractional-megaton range. In very general terms, it sets a nuclear "threshold", prohibiting tests having a yield exceeding 150 kilotons (equivalent to 150 000 tons of TNT). The parallel treaty on peaceful nuclear explosions (PNEs) places the same limit of 150 kilotons on the yield of any individual nuclear explosion for peaceful purposes. Neither treaty has so far been ratified.

Another achievement of bilateral negotiations during the period under review was the conclusion of the second phase of the Strategic Arms Limitation Talks (SALT) in June last year between the Soviet Union and the United States, with the aim of further limiting and reducing both offensive and defensive weapons. SALT II establishes an overall balance of strategic nuclear forces by restricting the Soviet Union and the United States to an equal, overall total of strategic nuclear delivery vehicles. The agreement consists of three basic parts: a treaty to last until the end of 1985, a shorter term protocol dealing with qualitative restrictions that will expire on 31 December 1981, and a joint statement of principles and basic guidelines for subsequent negotiations. Attached to the Treaty there is an agreed memorandum listing the numbers of strategic weapons deployed by each side according to various categories and a set of agreed statements and common understandings which set forth interpretations with respect to many of the provisions of SALT II.

The clear commitment in the agreement by the two Powers, to continue negotiations with the view to achieving further limitations and reductions of strategic arms, enhances the importance of the agreement and ensures the continuation of the process first initiated by the Soviet Union and the United States in 1968. SALT II represents an important step in the

Mr. Mårtenson is Assistant Secretary-General of the United Nations Centre for Disarmament. IAEA BULLETIN - VOL.22, NO.3/4 direction of arms regulation and disarmament in that it indicates a desire on the part of the two major nuclear-weapon Powers to restrain not only horizontal but also vertical proliferation. The Treaty has not yet been ratified but both parties have indicated their intention to abide by its provisions.

At the bilateral level, mention must also be made of the French-Soviet Agreement of 16 July 1976 and the Soviet-United Kingdom Agreement of 10 October 1977 on the prevention of accidental or unauthorized use of nuclear weapons, which provide that the parties will maintain and, possibly, improve their organizational and technical arrangements to prevent the accidental or unauthorized use of nuclear weapons under their control. The Parties have undertaken to notify each other immediately of any accidental occurrence or any other unexplained incident that would lead to the explosion of one of the nuclear weapons and would be construed as likely to have harmful effects on the other party.

Only one multilateral disarmament agreement has emerged since the conclusion in 1972 of the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction, i.e. the Convention on the Prohibition of Military or Any other Hostile Use of Environmental Modification Techniques, also known as the "ENMOD Convention".

In September 1974, the Soviet Union had submitted a draft convention which in a comprehensive manner provided for the prohibition of the use of any meteorological, geophysical or any other scientific or technological means of influencing the environment, including the weather and climate, for military and other purposes. Following bilateral negotiations, the Soviet Union and the United States worked out in August 1975 identical texts of a draft convention which was limited in scope to environment modification techniques having widespread, long-lasting or severe effects as the means of destruction, damage or injury to another State Party.

These texts were submitted to the Conference of the Committee on Disarmament (CCD). Further negotiations in that body, in the spring and summer of 1976, resulted in a modified text which was transmitted to the General Assembly for consideration. The Assembly, in turn, referred it to all States for consideration, signature and ratification. The "ENMOD Convention" opened for signature on 18 May 1977 and entered into force on 5 October 1978.

The Convention prohibits military or any other hostile use of environmental modification techniques having widespread, long-lasting or severe effects as the means of destruction, damage or injury to States Party to the Convention. The term "environmental modification techniques" refers to any technique for changing – through the deliberate manipulation of natrual processes – the dynamics, composition or structure of the earth, including its biota, lithosphere, hydrosphere and atmosphere, or of outer space.

The situation is therefore as follows: there have been three important bilateral agreements between the Soviet Union and the United States in the period under review, but none of them have yet been ratified. In the same period, one multilateral disarmament agreement, the "ENMOD" Convention, was concluded. At the time of writing, only 29 States have ratified the Convention.

These measures are more in the nature of arms limitation than disarmament, in other words, they are designed to regulate competition and proscribe certain developments deemed to be particularly destabilizing, costly or of little military significance, rather than substantially to

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reduce important weapon systems. Article VI of the Non-Proliferation Treaty states that "Each of the Parties to the Treaty undertakes to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament ...". Results of these negotiations are still awaited.

Piecemeal measures, useful as they may be, have not provided a satisfactory answer to the needs of the international community. Referring to the question of partial measures the Secretary-General of the United Nations, in opening the meeting of the Preparatory Committee for the special session of the General Assembly devoted to disarmament in March 1977, said "There is a growing realization that in the context of a rapidly innovating arms race such an approach is bound to fail. Technological inventions tend to outstrip the pace of negotiations. The momentum of the arms race makes it hurdle the weak barriers that have been built to stop it." In conclusion, he stated "What is needed then, is a comprehensive approach aimed at real disarmament and one that is realistic concerning both the possibilities of disarmament and the danger of a continued lack of decisive progress."

The primary task continues to be the search for a treaty that would terminate all nuclear weapons testing. However, the trilateral talks on a comprehensive test ban which have now been going on for three years between the Soviet Union, the United Kingdom and the United States have not yet resulted in an agreed draft treaty. The Committee on Disarmament gives the highest priority to this subject. It is reported that progress has been achieved in connection with the verification problems of such a treaty including on-site inspection. A group of experts established by the Committee on Disarmament has elaborated a design for international co-operative measures to detect and identify seismic events, which could contribute to the solution of serious verification issues. The Secretary-General has recently submitted to the Committee on Disarmament a report which concluded that a comprehensive test ban is the first and most urgent step towards a cessation of the nuclear-arms race, in particular as regards its qualitative aspects.

Negotiations on prohibition of chemical weapons, have continued since 1971. The urgency and importance of negotiating an international convention on chemical weapons is widely recognized. The bilateral talks between the Soviet Union and the United States in this area, too, have not yet resulted in a draft treaty. It would appear that many questions in connection with the scope and the verification of a prohibition of the development, production and stockpiling of chemical weapons remain to be solved. In March of this year the Committee on Disarmament established an *ad hoc* working group to define through substantive examination issues to be dealt with in the negotiations on a multilateral convention on this matter.

On another matter, last year the Committee on Disarmament established an *ad hoc* working group to consider and negotiate on the very important question of effective international arrangements to assure non-nuclear-weapon States against the use or threat of use of nuclear weapons. There is general agreement on the need for extending the so-called "negative" security assurances to non-nuclear-weapon States but there are still some differences of opinion on how one could best go about it. Some countries wish to see the conclusion of an international convention on the subject while others are more inclined to consider other forms of guarantees, such as a Security Council or a General Assemgly resolution taking note of the individual declarations of assurance made by nuclear-weapon States. In regard to the scope and nature of the guarantees, some differences of view also remain to be reconciled.

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The question of the prohibition of radiological weapons is another of the attainable measures among the disarmament issues. It has been the subject of bilateral negotiations between the Soviet Union and the United States since 1977. Both countries have indicated the wish to conclude such an agreement and in fact, in 1979, they submitted to the Committee on Disarmament an agreed joint proposal on the major elements of a treaty prohibiting the development, production, stockpiling and use of radiological weapons. Progress has been made in this field and one hopes that the Committee would be in a position to submit a draft treaty to the General Assembly in the near future. In March this year the Committee also decided to set up an *ad hoc* working group with a view to reaching agreement on a convention prohibiting the development, production, stockpiling and use of these weapons.

Disarmament is a central and continuing concern of governments. The machinery for meaningful deliberations and productive negotiations exists and permits each State to make a contribution towards progress in disarmament. There is general agreement on the basic principles and priorities in the field of disarmament. All governments share an awareness of the grave consequences of the continued arms race for the economic development of all States, particularly the developing States. The arms race must be checked. On that, there is agreement. Progress should, thus, be possible, and is indeed essential, particularly in this period of aggravated international tension. What is needed is the political will to halt and reverse the arms race and to bring the on-going negotiations to a successful conclusion.