Borgese

DISARMAMENT

Summary

The adoption of the United Nations Convention on the Law of the Sea changes the context within which the Treaty on the Prohibition of the Emplacement of Nuclear Weapons and Other Weapons of Mass Destruction on the Sea-Bed and the Ocean Floor and in the Subsoil Thereof is to be effective. The upcoming Third Review Conference on the Seabed Treaty will offer the opportunity to initiate a process of harmonizing and strengthening both Treaties in their interaction.

Five areas of interaction have been identified, and in each area, a proposal for action has been put forward.

1. The first concerns the definition of the geographical area to which the Sea-bed Treaty is applicable. Here a simple harmonization of terms has been suggested. It has also been pointed out that the Sea-bed Treaty, in accordance with the Law of the Sea as it existed in 1972, divides the seabed into two zones: One under national jurisdiction, the other under a high-seas freedom regime. The L.o.S. Convention adds a third area: the "Area," under the jurisdiction of the International Sea-Bed Authority. Different regimes for arms control may be called for within these three different regimes.

2. The second concerns the functional scope of the Seabed Treaty. Between the alternatives of de-nuclearization and de-militarization, the study recommends a geographically graduated approach: Voluntary de-nuclearization on the sea-bed underlying the territorial sea; denuclearization of the continental shelf area, from the 12-mile limit of the territorial sea to the outer limit of the shelf as defined in Art. 76 of the L.o.S. convention; and de-militarization of "the Area" which the L.o.S. Convention has reserved exclusively for peaceful purposes.

3. The third concerns verification. It is pointed out that the Seabed Treaty's verification procedures may be more unacceptable in the new setting created by the L.o.S.

convention than they were before. Three different verification regimes are proposed for the three different jurisdictional zones established by the L.o.S. Convention: (a) verification by national means on the sea-bed underlying the territorial sea which, it is to be hoped, will be de-nuclearized voluntarily; (b) verification on the basis of regional cooperation by means of regional mechanisms that may be created in connection with international instruments for regional de-nuclearization, in the Continental Shelf area; and (c) verification through the International Sea-Bed Authority in the Area established by the L.o.S. Convention.

4. The fourth concerns the monitoring of technological change. since the periodic review of the Sea-Bed Treaty "shall take into account any relevant technological developments," information on such developments must be forthcoming systematically and regularly. It is suggested that a Resolution be adopted requesting the Secretary General of the United Nations to issue, at regular intervals, surveys on deep-sea technologies, both military and civilian, which may be relevant for monitoring and surveillance. Such surveys, the study suggests, will be useful both to the CCD and the International Seabed Authority and its Preparatory Commission.

5. The fifth concerns dispute settlement. Procedures of control and verification are likely to be both more effective and more acceptable if there is a mechanism to settle disputes concerning verification. A system of dispute settlement was proposed by Brazil when the Seabed Treaty was first negotiated, but it was not included in the Treaty. The L.o.S. Treaty now establishes a comprehensive and binding dispute settlement system and an International Tribunal for the Law of the Sea. It is suggested that this Tribunal be given jurisdiction to settle disputes arising from verification procedures.

In conclusion, the study suggests a time table: Issue area (1) and (4) could be acted upon by the Third Review Conference in any case. Perhaps some recommendation could be

made on (2). Issue areas (3) and (5) are of a long-term nature. They should be considered once the U.N. Convention on the Law of the Sea comes into force. In the meantime a Consultative Committee consisting of experts on the Law of the Sea and on Disarmament should be appointed to utilize the period between the Second and the Third Review Conference to prepare the next significant step forward toward peace in the oceans.

Introduction

The Treaty on the Prohibition of the Emplacement of Nuclear Weapons and Other Weapons of Mass Destruction on the Sea-bed and the Ocean Floor and in the Subsoil Thereof entered into force on May 18, 1972. Two Review Conferences took place, in 1977 and 1983. No changes in the Treaty text were deemed necessary.

Yet significant developments have taken place since the adoption of the Treaty. Scientific and technological change has been escalating. The economic importence of the sea-bed came into focus, and the whole law of the sea is in a state of effervescence.

In December, 1982, the United Nations Convention on the Law of the Sea was adopted. It has since then been signed by 135 States and ratified by 15. It will come into force upon the 60th ratification. This Convention is a first piece, and a cornerstone of a new order in the oceans.

There are important linkages between the Sea-bed Treaty and the L.o.S. Convention. Studies are already being undertaken by some Governments.

These linkages go back to the common origin of both Treaties in the Maltese initiative of 1967 and the concept of the Common Heritage of Mankind which, from the very outset, integrated the notions of peaceful uses (Development) and reservation exclusively for peaceful purposes (Disarmament). Subsequently, these were divided. Peaceful uses became the mandate of the Sea-bed Committee and the Third United Nations Conferenc on the Law of the Sea. The reservation for exclusively peaceful uses was to be spelled out by the Disarmament Conference Committee (CCD). In reality, however, both aspects of the Common Heritage are inseparable. As was stressed at the first Review Converence in 1977, clearly the questions of military and nonmilitary activities on the sea-bed are closely interrelated, and under-water operations, whether peaceful or military, often

require the same technology.1/

Both the Sea-bed Treaty and the L.o.S. Convention profess it to be their purpose to enhance peace in the oceans. The States Parties to the Sea-bed Treaty express their conviction (Preamble) that "the prevention of the nuclear arms race on the sea-bed and ocean floor serves the interests of maintaining world peace, reduces international tensions, and strengthens friendly relations among States"; that "this Treaty constitutes a step toward a treaty on general and complete disarmament under strict and effective international control," and that they are "determined to continue negotiations to this end." In Article V, "the Parties to this Treaty undertake to continue negotiations in good faith concerning further measures in the field of disarmament for the prevention of an arms race on the sea-bed, on the ocean floor, and in the subsaoil thereof."

The States Parties to the L.o.S. Convention are "aware of the historic significance of this Convention as an important contribution to the maintenance of peace..." and they believe "that the codification and progressive development of the law of the sea achieved in this Convention will contribute to the strengthening of peace, security, cooperation and friendly relations among all nations..." More specifically, "the High Seas shall be reserved for peaceful purposes (Art. 88); the international seabed area ("the Area") "shall be open to use exclusively for peaceful purposes by all States..." (Art. 141); and also "Marine scientific research shall be carried out exclusively for peaceful purposes," not only in the Area (Art. 143), but in ocean space as a whole (Art. 240). The Convention further establishes that "In exercising their rights and performing their duties under this Convention, States Parties shall refrain from any threat or use of force against the territorial integrity or political independence of any State, or in amy other manner inconsistent with the principles of international law embodied in the Charter of the United Nations."

Discrepancies between the Sea-bed Treaty and the L.o.S. Convention arise from the time-lag between them. The concept of spacial organization of the oceans and of jurisdictions has changed in the decade 1972-1982. The Sea-bed Treaty was adopted when the United Nations still clung to the notion that ocean space could be "compartmentalized" and that the sea-bed could be dealt with in isolation. The L.o.S. convention is based on the recognition that "the problems of ocean space are closely interrelated and must be considered as a whole."

The interactions between the two Treaties will be examined under five headings:

The geographic scope of the two Treaties

Their functional scope

The problem of verification

Considerations of technology

Dispute settlement.

An attempt will be made in each case to make use of these interactions to advance the common goal and to strengthen both Treaties.

1. Geographic Scope

The area to which the Sea-bed Treaty applies (Art.I) is "the sea-bed and ocean floor and the subsoil thereof beyond the outer limit of a sea-bed zone" which is defined in Article II as follows: "The outer limit of the sea-bed zone referred to in Art. I shall be coterminous with the twelve-mile outer limit of the zone referred to in Part II of the Convention on the Territorial Sea and the Contiguous Zone signed in Geneva on 29 April 1958, and shall be measured in accordance with the provisions of Part I, Section II of this Convention and in accordance with international Law." Thus the area to which the Sea-bed Treaty applies covers (a) the sea-bed underlying the high seas and (b) the entire legal continental shelf as defined by the 1958 Convention on the Continental Shelf. Basically, the Sea-bed Treaty divides the sea-bed into two different zones: a zone under national jurisdiction, extending to a limit of 12 miles from baselines, and an international zone, under a regime of high-seas freedoms beyond that limit.

The L.o.S. Convention establishes a 12-mile limit for the Territorial Sea (Art.3) and a contiguous zone which "may not extend beyond 24 nautical miles from the baselines from which the breadth of the territorial sea is measured" (art.13). The definition of the legal continental shelf is far broader than under the 1958 Convention: the shelf may extent to 350 miles from the baselines from which the territorial sea is measured, and, in some cases, even further.

Beyond the limits of the Continental Shelf, the L.o.S. Convention establishes a new zone, "the Area," under the jurisdiction of the International Sea-bed Authority. Basically, the L.o.S. Convention divides the sea-bed into three different zones: a zone under national jurisdiction; a zone under national jurisdiction with high-seas freedoms; and a zone under the jurisdiction of the International Sea-bed Authority.

Already before the adoption of the L.o.S. Convention, the definition of the area to which the Sea-bed Treaty was applicable was found unsatisfactory. Delegates pointed out that the reference to the 1958 Geneva Convention was unfortunate since not all States Parties to the Sea-bed Treaty would be parties to the 1958 Convention.2/

If the reference to the 1958 Convention caused doubts and difficulties in 1970, these doubts and difficulties must be considerably greater today when the 1958 Convention is being superseded by the 1982 L.o.S. convention and references to a 12-mile contiguous zone limit are simply obsolete.3/

As pointed out during the Second Review Conference, special attention should be given to the problem of archipelagic waters as defined in the L.o.S. Convention. None of the archipelagic States has as yet signed the Sea-bed Treaty. Whether they sign or not, it is likely that vast sea-bed spaces, underlying archipelagic waters will be excluded from the Sea-bed Treaty regime, upon the coming into force of the L.o.S. Convention.This, clearly, will work to the advantage of the Superpower wielding political influence in the region.

In any case, Art.I and II of the Sea-bed Treaty ought to be revised. Reference should be made to the 12-mile limit of the territorial sea rather than to that of the contiguous zone. Reference must also be made to "the Area," which is reserved exclusively for peaceful purposes and which did not exist when the Sea-bed Treaty was adopted; and the sea-bed underlying archipelagic waters deserve special attention and, perhaps, additional protocols, probably in the context of regional de-nuclearization.

2. Functional Scope

The Sea-bed Treaty, as is well known, evolved through a number of drafts: first a USSR Draft and a USA Draft, separately, then, successive versions of a joint USSR-USA

Draft, until it became the Draft of the whole CCD. It is of some interest that the first draft submitted by the USSR (ENDC/240, 18 March 1969) provided (Art. 1) that "The use for military purposes of the sea-bed and the ocean floor and the subsoil thereof beyond the 12-mile maritime zone of coastal States is prohibited." During the early discussions in the CCD, the vast majority of delegations opted for a more comprehensive formula involving the complete demilitarization of the sea-bed and the ocean floor, thus keeping this new field of human endeavor entirely reserved for peaceful purposes in the interest of all mankind.4/

It was the USA Draft (ENDC/149,22 May 1969) that narrowed the scope of the Convention from "uses for military purposes" to "the emplanting and emplacing of nuclear weapons or other weapons of mass destruction."

The compromise was -- as was stressed by the vast majority of delegations -- to consider the Treaty in its present form merely as a first step which must be followed by other steps toward the total demilitarization of the sea-bed.

The Soviet Delegate, for example stressed the fact that a Treaty on the prohibition of the emplacement of nuclear weapons and other weapons of mass destruction on the sea-bed and the ocean floor and the subsoil thereof must become an important stage toward the next step, which will later completely exclude the sea-bed and the ocean floor and the subsoil thereof from the sphere of the arms race. In the preample of the Draft Treaty it is stated, he recalled, that the Parties to the Treaty "are determined to continue negotiations concerning further measures leading to this end. And, he stressed, "we are aware of the political significance of this provision."5/

This view was shared, more or less enthusiastically, by the entire CCD.

The political significance of the provision is that it

introduces a time dimension, a dynamic aspect, into the document, which clearly becomes process: stage in a process, from which we are obliged to move forward.

The L.o.S. Convention, on the other hand, reserves the sea-bed area, however delimited, the high sea, and scientific research, for "exclusively peaceful purposes." Although the meaning of this phrase is not clearly defined, one feels tempted to assume that it is comprehensive in character and comes closer to the concept of demilitarization than to that of de-nuclearization. Some delegations, in fact, have made a parification between "reservation for peaceful purposes" and "complete demilitarization." One Delegate, during the Second Review Conference stated explicitly that "The complete demilitarization of the sea-bed and ocean floor was a prior condition for the utilization of those areas and their natural resources for purely peaceful purposes." 6/

If we now wanted to harmonize the two Treaties with regard to the scope of the prohibition, we should translate the notion of graduation in time (successive stages of disarmament) into one of graduation in space (different regimes for various sectors of ocean space).

The establishsment of the International Sea-bed Authority and the reservation of the Area for exclusively peaceful purposes should be interpreted as the prohibition of uses for military purposes, as proposed in the original Soviet Draft and endorsed by the vast majority of delegations.

The next step in the negotiation, solemnly pledged by the States Parties to the Sea-bed Treaty, would be an amendment to this end. Such an amendment would consist of two parts.

The first part would be an addition to the preamble, taking cognizance of the adoption of the L.o.S. Convention.

-- noting that the United Nations Convention on the Law of the Sea, signed at Montego Bay on December 10, 1982, establishes that the Sea-bed, the ocean floor, and the subsoil thereof, beyond the limits of national jurisdiction, are the Common Heritage of Mankind, reserved for exclusively peaceful purposes;

Such an addition would be necessary in any case, and Delegations to the Second Review Conference were fully aware of it. The Delegate of Columbia, in particular, stressed the importance of the concept of the Common Heritage and the reservation of the Sea-bed for exclusively peaceful purposes. 7/

The formula, finally adopted by the Second Review Conference, is unsatisfactory.8/ It is to be hoped that, once the L.o.S. Convention comes into force, more adequate notice will be taken of it by the next Review Conference.

The second part of the amendment would consist of an operative Article: a new Article III (the numeration of the following Articles to be adjusted accordingly) which would read:

Article III

The use for military purposes of the sea-bed and the ocean floor and the subsoil thereof beyond the limits of national jurisdiction ("The Area") is prohibited

Such an Article would clearly link and harmonize the two Treaties and move the whole system one step further towards the exclusion of the sea-bed, the ocean floor and the subsoil thereof from the arms race, as solemnly undertaken in the Preamble and in operative Article V of the Sea-bed Treaty and re-affirmed by Delegation after Delegation, during the negotiation and the reviews of the

Treaty. The adoption of the L.o.S. Convention makes this step necessary and possible.

3. Verification

The most crucial issue, and the one most difficult to resolve in the drafting of the Sea-bed Treaty, was the issue of verification.

Verification provisions should be regarded as the key element in all disarmament measures 9/ Most countries wanted to internationalize verification procedures at the time the Sea-bed Treaty was being negotiated. It was found essential that the principle of international responsibility in the matter of control should be recognized in the provisions of the Treaty. In other words, an adequate procedure introducing -- through machinery to be determined -- recourse to international organisations was to be established.10/

There were two reasons for this. First, there was a general awareness of the fact that very few countries had the technical capability to participate in verification procedures, which, thus, basically had to be entrusted to the superpowers: not a satisfactory prospective for most countries. Secondly, coastal States may have had legitimate concerns with regard to possible infringements of their sovereign rights in the continental shelf by "verifying States." Both problems, obviously, would be alleviated by internationalization of the verification procedures.

A number of proposals were put forward at the time. Some States wanted a special body responsible for the surveillance of sea-bed installations and monitoring compliance with the prohibitions of the Treaty. Others suggested that existing international organizations could be entrusted with the task.

Both the USA and the USSR objected to the internationalization of verification procedures. They

considered it unnecessary, premature, and costly to establish a special body and equip it with the necessary technology.

Canada, through George Ignatieff, introduced an important working paper (CCD/270), identifying a number of criteria for efficient and acceptable verification procedures. First, Mr. Ignatieff said, they must, to the satisfaction of all signatories, detect any significant breaches of the treaty with a minimum of delay, providing in the last analysis incontrovertible evidence; and, secondly, they must be in accord with and support the existing Law of the Sea as it affects the interests of coastal States.

It is this latter criterion that makes a thorough review of the verification system inevitable today.

Let us now consider the issue of verification in the light of technological developments, the territorial organization and the legal and political situation arising in the wake of the L.o.S. Convention.

As pointed out above, there are now three juridical regimes -- not two -- to which verification procedures must be adapted.

(1) the twelve-mile sea-bed zone, referred to in Art.II of the Sea-bed Treaty and corresponding to the Territorial Sea of the L.o.S. Convention. Here, no change in the system of verification, surveillance and enforcement is needed. this is the responsibility of the coastal State which, it is to be hoped, will voluntarily abstain from emplacing nuclear weapons and other weapons of mass destruction in the sea-bed under its territorial sea, and take the necessary measures of monitoring and surveillance to ensure that no other State engages in activities prohibited by both Treaties.

(2) Far more complex is the situation arising from the continental shelf area, between the 12-mile limit of the

territorial sea and the outer limit of the continental shelf as defined in Art. 76 of the L.o.S. Convention.

It is true that, in strictly legal terms, verification in that zone could continue on the basis of freedom of navigation recognized by the L.o.S. Convention, and in accordance with Art. III of the Sea-bed Treaty. But would it be politically realistic to rely on these procedures in the changed situation?

On the one hand, advancing technologies have intensified and diversified the peaceful activities in this area, and verification operations by foreign States would constitute, commensurately, more of a nuisance. On the other hand, there can be no doubt that the rights of coastal States in the continental shelf area have not only been extended geographically but also strengthened functionally.

The 1958 Convention on the Continental Shelf recognized the "jurisdiction" of the coastal State for its exploration and the exploitation of the natural resources" (Art.5), and there is nothing in that Convention that would conflict with the right of other States to observe activities on the sea-bed and ocean floor under the high-seas freedoms.

The L.o.S. Convention is far more specific in granting "the exclusive right to construct and to authorize and regulate the construction, operation and use of artificial islands, installations and structures in the EEZ (Art. 60) and on the continental shelf (art. 80), and, again, while there is nothing that would explicitly prohibit observation of activities by a foreign State, it is highly doubtful whether, in fact, coastal States would be willing to acquiesce to such "observation."

It is generally acknowledged that the military implications of the EEZ are intentionally ambiguous and that they are in fact interpreted differently by different groups of States.

Michael Morris has analysed the military aspects of the EEZ and the Continental Shelf in an article in Ocean Yearbook III (University of Chicago Press, 1983). He concludes that "it is clear that a broad range of third-State military activities still is permitted in EEZs." He points out that "the optional exemption of military activities from...conflict resolution procedures allows the superpowers broad discretion in relying on EEZ naval activities without violating the law of the Sea." However, he states, "the status of uninvited third-party military activities involving the continental shelf is unclear. Such military activities by superpower navies would, therefore not violate the law, but might cause coastal State reprisals, if detected or suspected."

No coastal State, developed or developing, is likely to react favorably to systematic "snooping" by superpowers on their installations and activities on the continental shelf.

Perhaps the most practical solution to this problem would be in the direction of regional cooperation in monitoring and surveillance.

Regional cooperation in monitoring and surveillance is bound to increase in many areas, in the wake of the L.o.S. Convention and the Regional Seas Programme launched by UNEP in 1974, covering, by now, 11 ocean regions, and based on the cooperation of about 110 States and a great number of intergovernmental and nongovernmental organizations. Monitoring and surveillance with regard to the ocean environment, living resources, maritime traffic, etc., is likely to be carried out more and more on a regional, rather than on a purely national, basis.

At the same time, another development may beccme increasingly important, and that is the de-nuclearization of oceanic regions.

Already an established fact under the Treaty of Tlatelolco, regional de-nuclearization is explicitly recognized by the Sea-bed Treaty in Art. IX, which establishes that "the provisions of this Treaty shall in no way affect the obligations assumed by States Parties to the Treaty under international instruments establishing zones free from nuclear weapons."

The current, strong, political movement in favour of de-nuclearization may multiply the number of such zones, in the Baltic, the seas around the Nordic countries, the Mediterranean, the Indian Ocean, the South Pacific and other regions. International Conventions for regional de-nuclearization are likely to contain provisions for effective verification. These provisions would cover the landmass, the water column as well as the continental shelf.

In many regions, such arrangements might be politically more acceptable than the provisions of Art.III of the Sea-bed Treaty, which entrusts verification procedures, practically, to the good will of the superpowers.

To anticipate and encourage such a development, a new paragraph 6 might be inserted in Art. III of the Sea-bed Treaty (the numeration of the subsequent paragraphs to be adjusted accordingly), which might read as follows:

> 6. Verification pursuant to this article may be undertaken by regional verification mechanisms established under international instruments creating zones free from nuclear weapons

Such a provision would be a logical development of Article IX of the Treaty. It would serve to adjust the Treaty to the legal and political situation arising from the L.o.S. Convention; it would go a long way toward assuaging the misgivings of coastal States against superpower

"snooping," and it would establish a desirable link between arms control measures on the sea-bed and in the superjacent waters, recognizing that the problems of ocean space are closely interrelated and must be treated as a whole: a recognition basic to the L.o.S. Convention, but that had not yet been aquired at the time the Sea-bed Treaty was adopted.

(3) The third zone, "the Area," which did not exist in 1972, calls for a different system of verification, taking cognizance of the special jurisdictional regime of the Area and the powers and responsibilities of the International Sea-bed Authority, which creates a totally novel situation, basically different from the one existing when the Sea-bed Treaty was adopted.

To fulfil the tasks imposed on it by Part XI of the L.o.S. Convention, that is, among other things, directly to explore and exploit the mineral resources of the Area, the Authority, through its operational arm, the Enterprise, must be equipped with complex technology, including deep-sea photographic and televisive equipment, acoustic apparatus (sonar), seismic equipment and micro-electronics to computerize seismic, acoustic, and optical data; in short, the very same technology needed to verify compliance with the prohibitions of the Sea-bed Treaty in the Area. As pointed out at the beginning of these pages, a number of delegations were quite aware of the close interrelationship between military and nonmilitary activities on the sea-bed and the identity of deep-sea technology for peaceful or military purposes.

The Sea-bed Authority, furthermore, has the institutional infrastructure to carry out inspection. Art. 153 of the L.o.S. convention empowers the Authority

> to take at any time any measures provided for under this Part to ensure compliance with the provisions and the exercise of the functions of control and regulation assigned to it thereunder

> or under any contract. The Authority shall have the right to inspect all installations in the Area used in connection with activities in the Area.

Art. 165 provides that the Legal and Technical Commission of the Authority shall

> Make recommendations to the Council regarding the establishment of a monitoring programme which shall observe, measure, evaluate and analyse by recognized scientific methods on a regular basis the risks and effects of activities in the Area with respect to pollution of the marine environment, ensure that existing regulations are adequate and complied with and coordinate the implementation of the monitoring programme approved by the Council;

It shall also

> make recommendations to the Council regarding the direction and supervision of a staff of inspectors who shall inspect activities in the Area to determine whether the provisions of this Part, the rules, regulations and procedures prescried therunder, and the terms and conditions of any contract with the Authority are being complied with.

And, finally, it provides that

> the members of the Commission shall, upon the request by any State Party or other party concerned, be accompanied by a representative of that State Party or other party concerned, when carrying out their function of supervision and inspection.

In other words, the Convention provides for a fully developed institutional framework for multi-purpose

(environmental, administrative, fiscal) inspection and verification, in which any State party, whether industrialized or developing, can fully participate.

True, these functions of monitoring, surveillance and verification are restricted to "activities in the Area," which, in turn, after long and inconclusive debates have been defined in the narrow sense as "all activities of exploration for, and exploitation of, the resources of the Area" (Part I, article 1, Use of Terms). Military activities in the Area have intentionally been excluded from the Authority's right to inspection. It should, however be borne in mind that the reservation of the Area for exclusively peaceful purposes is one of the basic principles of the L.o.S. Convention and that the Review Conference, to be called 15 years after the commencement of commercial production in the Area, is enjoined, under para.2 of Article 155, to ascertain, among many other things, "the use of the Area exclusively for peaceful purposes." It is difficult to see how it can do so, unless one assumes that the Authority has indeed verified compliance with this basic principle during the intervening years.

It also should be borne in mind that, as Elizabeth Young put it in a paper as early as 1973, that

> the activities of various existing and planned United Nations bodies and of an ocean regime's own organization are bound to result in a considerable international presence in ocean space. This presence of itself would have an arms control effect, proportionate to its scale and the range of its activities, and at some point it will be necessary to consider how this effect can be enlarged and enhanced...Any inspectorate, research exercise, monitoring body, is part of a de facto international verification system. In setting them up, the arms control significance of the information they are to acquire should be kept in view and eventually concerted 11/ (emphasis added)

Given the close interrelationship between military technology and technology applied for peaceful purposes, it would be uneconomical to provide for two independent monitoring and verification systems: one for military, and one for peaceful operations.

Monitoring, surveillance and verification are very costly in areas under national jurisdiction. Experts have recommended time and again the use of monitoring and surveillance equipment and manpower 'simultanenously for multiple purposes to achieve better cost/efficiency. Thus military craft on surveillance mission can, at the same time, transport goods or passengers. The same electronic gear can be usd to monitor the movement of ships and for fish finding. Communication networks can serve security as well as civilian purposes -- to mention only a few examples.

A comprehensive study, undertaken by the Commonwealth Secretariat for the Government of the Solomon Islands thus recommended:

> In the light of the Solomon Islands extensive EEZ (EEZ area = 1,520,000 sq km; land area = 28,500 sq km) as well as the limited infrastructure facilities in the form of ports, processing and handling facilities, trained manpower, technical and financial resources, the consultants recommended a multi-purpose system of surveillance...This system is to cover not only the patrolling of fishing activities, but also such tasks as immigration and customs control, coast guards, defence, search and rescue operations...12/

The experts gathered at Pacem in Maribus, likewise, recommended that

> the cost of services and technologies can be reduced by

. the integration of systems at the national level, avoiding organizational duplication of efforts and taking advantage of the multi-purpose capacity of surveillance technologies. Means of surveillance thus can be utilized, simultaneously, for transport of goods and persons and for communication, to increase cost/efficiency ratios.

There are obvious differences in the means applied to monitoring and surveillance in the waters of the economic zone and those applied for verification on the deep sea-bed. But the principle of utilizing the same means for the monitoring of military and of peaceful uses for cost/efficiency is exactly the same. Considering, on the one hand the cost, on the other hand, the close relationship, or even identity, between military and scientific/industrial deep-sea technologies, it would be utter wastefulness not to utilize the same technological and institutional systems for both purposes.

The International Sea-bed Authority -- no matter what its technical defects at this stage of development of the Law of the Sea -- is the greatest and most daring innovation of the Law of the Sea Conference. It embodies and articulares the revolutionary principle that the Sea-bed and ocean floor and the subsoil thereof, beyond the limits of national jurisdiction are the Common Heritage of Mankind and are reserved exclusively for peaceful purposes. If the de-militarization of the Area is the logical interpretation of the fundamental goals of both Treaties, the next logical step would be to entrust verification procedures in the Area to the Sea-bed Authority. this would respond to the expressed desire of the overwhelming majority of States, to move in the direction of internationalizing controls. It would serve to harmonize the two Treaties and to advance their common goals. 13/

To achieve this purpose, two measures would have to be taken: An amendment to the Sea-bed Treaty would be required.

This would take the form of a further addition in Art.III, following the new paragraph 6 proposed above. There would be a new paragraph 7 (the numeration of the subsequent paragraphs to be adjusted accordingly) which would read:

> 7. In the Area established by the United Nations Convention on the Law of the Sea, verification pursuant to this Article shall be undertaken by the International Sea-bed Authority through the organs for surveillance and inspection authorized in Art. 165 of that Convention.

Once this were done, two simple amendments to the L.o.S. Convention would be required.

The first would be the omission of the words "used in connection with activities in the Area" in Art. 153. The last sentence of para.5 of that Article would read

> ...the Authority shall have the right to inspect all installations in the Area [used in connection with activities in the Area].

The second would be an addition to Art. 165, para.2 (m), as follows:

> (m) make recommendations to the Council regarding the direction and supervision of a staff of inspectors who shall inspect activities in the area to determine
>
> - whether the provisions of this Part, the rules, regulations and procedures of the Authority, and the terms and conditions of any contract with the Authority are being complied with;
>
> - whether the Area is being used exclusively for peaceful purposes.

This may be a long-term proposition But if it were to

be considered by the Third Review Conference, which must be called between between 1988 and 1990, it would not be too early to start thinking about it now.

The geographic scope, the functional scope of the Sea-bed Treaty and its verification procedures have been under constant discussion by the CCD and the First and Second Review Conference on the Sea-bed Treaty.

There are, however, two further aspects of the Treaty, in its interaction with the L.o.S. Convention, that merit attention. One is the need to monitor changes in sea-bed technologies, since any review of the Treaty must take into account any relevant technological development (Art. VII of the Sea-bed Treaty). The second concerns dispute settlement in connection with verification procedures.

4. Monitoring Sea-bed Technologies

Numerous delegations, during the negotiation of the Treaty as well as during the two Review Conferences, mentioned the importance of technological change as the basis of possible changes in the verification procedures. Delegates stressed that the procedures of verification will obviously have to be altered in the light of experience and changing technology and that this should be one of the subjects of the review conferences.14/

the needed information on technological developments, however, was hard to come by. During the First Review Conference, the Delegate of the Netherlands expressed his disappointment because the Conference had not received any information on "relevant technological developments", to quote the expresion used in Article VII of the Treaty. It was hard to believe, he said, that there was nothing to be said on that subject: that would imply the absence of all military activities on the sea-bed, which seemed rather unlikely. Participants may well reach the conclusion that further arms control or disarmament measures with respect to the sea-bed were superfluous or impracticable, at least for

the time being, but such a conclusion should not be drawn until after the relevant issues had been examined.15/

And the Delegate of Romania stressed that there was a gap in the Treaty, which failed to specify how information relating to technological progress made in sea and ocean research could be made available to all States. However, Art. VII provided that the review of the Treaty "shall take into account any relevant technological developments." To judge by the enormous sums spent on research in the ocean depths, significant progress, which was likely to have an impact on the operation of the Treaty and about which the States Parties should be informed, must have been made. 16/

During the Second Review Conference, the Delegate of Sweden stressed once more that it was essential that States parties should be given the necessary information on technological developments in the area to which the Treaty related. By and large, two factors appeared to be conducive to increased militarization of the seas and sea-bed: the ever increasing effectiveness of satellite and other surveillance and reconnaisance systems, and the improved capacity to combat naval forces with long-range precision weapons. First, outlying underwater bases for submarines and other submersibles could, for instance, supply submarines and other submersibles with weapons, foodstuffs, etc., which would give such submersibles a longer operating time in a specific area. Secondly, mobile underwater caissons containing missiles or other weapon systems could be constructed inside a State's territorial waters and then, particularly in times of crisis, be taken in tow and lowered on to the sea-bed in suitable areas. That procedure would provide good protection against strategic surveillance and decrease the range needed for the missiles. Third, the exploitation of offshore oilfields situated at great depths had led to the development of undersea production systems, which were sometimes also used in severe climatic environments, such as in the Arctic region. Some of them, the so-called dry systems, used atmospheric pressure chambers placed on the sea-bed. Such undersea production

systems were most likely to become very common in the future. That development generated an experience and a technology that had possible military applications. A combined civil and military use of those systems was a clear possibility. another example was the possibility of accommodating missile installations on offshore platforms. Fourth, another area in which research and development were being actively pursued related to the technology in small submersibles, particularly remote-control vehicles. That was an area in which civil and military needs often coincided and important advances were made in underwater communication and navigation. The progress in that field might very well be of relevance to the possible development of more advanced mobile weapon systems which could be installed on the sea-bed a long time before being activated and sent to the point of action. Regardless of whether or not the use of these installations for military purposes was at present envisaged, or whether or not they attracted any interest, it was imperative that the participants in the Conference should look to the future and take into account the possibilities which those installations afforded. 17/

Enormous improvements have indeed been made, during the past five to ten years, also in the exploration/verification technologies that are relevant in this context. SEABEAM measures time of travel of narrow sonic beams reflected at various angles so that bathymetry along a swath several kilometers wide can now be precisely determined. DEEP TOW of Sripps Institution tows a number of scientific instruments close to the ocean bottom, with very high resolution; the SEAMARC developed at Lamont-Doherty and similar instruments are well known examples. Even more significant than progress in data-gathering technology has been the staggering progress made in data processing and interpreting. The application of micro-electronics to the processing of seismis data has increased the efficiency of oil exploration literally thousands of times. This is applicable to verification procedures as well.

In view of these developments, the flat statement, by

the Depositary States, to the Second Review Conference, that no technological developments have taken place which would impact in any way on the provisions of the Treaty, are simply unacceptable. They were unacceptable to a number of Delegations.18/

A considerable amount of information is available, although it is dispersed. Some countries (Canada, Sweden) have indeed specialized in gathering information on seismic and acoustic data collection, processing and interpretation. Some information on recent or predictable developments in Marine Geophysics can be gathered from the UNESCO/IOC study, "Expected Major Trends in Ocean Research, up to the Year 2000," while the Ocean Economics and Technology Branch has started a data bank on deep-sea technologies. UNIDO is exploring the possibility of establishing an International Centre for Marine Industrial Technology, which might provide valuable information. The Preparatory Commission for the International Sea-bed Authority and the International Tribunal for the Law of the Sea is studying a proposal, put forward by the Delegation of Austria, for the establishment of a Joint Enterprise for Exploration, Research and Development (JEFERAD). JEFERAD would operate a Technology Bank, cataloguizing, acquiring, developing and adapting technologies for the future Enterprise of the Authority. Since these are the same technologies required for surveillance and verification, the Prep.Com, through JEFERAD, could make a most important contribution to the work of the next SBT Review Conferences.

What is needed is a systematic survey of exploration, monitoring and surveillance technologies, to be released to Governments, let us say, three months prior to the opening of a SBT Review Conference.

The Second Review Conference took a timid initial step in this direction. the Conference, in its final Declaration, "invited the Secretary-General of the United Nations to collect such information from officially available sources and publish it in the United Nations Yearbook on

Disarmament." The limitation to "officially available sources" may be self-defeating. Whoever collects this information ought to be free to draw on any sources he can lay his hands on. Otherwise the result might be as frustrating as it was in 1983.

5. Dispute Settlement

At the time the Sea-bed Treaty was being negotiated, various Delegations indicated the need for some mechanism to settle disputes regarding verification, if verification was to be effective. It wa felt that there must be some mechanism to ensure that, in the final analysis, disputes regarding verification can be solved once the concern of a State is engaged that the Treaty is not being fully complied with.19/

On September 9, 1969, Brazil submitted a working paper to the CCD "On the Settlement of Disputes Arising from the Implementation of a Treaty for the Non-Armament of the Sea-Bed and the Ocean Floor." In this document, the Brazilian Government re-iterated its firm conviction that any normative convention for the non-armament of the sea-bed and the ocean floor would be incomplete if it were not to include appropriate provisions for the solution of disputes and controversies arising from its implementation.20/ The paper stressed that the inclusion of such provisions in the Treaty will considerably facilitate the very acceptance of any control mechanisms by a substantial number of States. The Brazilian Delegation was fully aware, when presenting its working paper, that the Treaty under examination would become the first international instrument on arms control and disarmament negotiated in the Committee on Disarmament to include provisions for the settlement of disputes.

Unfortunately, the time was not ripe for the Brazilian proposal. No provision on dispute settlement was included in the Treaty.

The First Treaty, on a global scale, to include a comprehensive and binding system of dispute settlement

relating to the application and interpretation of the Treaty is the U.N. Convention on the Law of the Sea. Its provisions have rightly been hailed as constituting an important step forward in the development of international law and the maintenance and enhancement of peace.

Obviously, there are certain gaps in this sytem of dispute settlement: inevitable concessions to the prevailing mood of nationalism. One of these gaps is that military activities are exempted from submission to mandatory dispute settlement.

The interaction between the two Treaties might provide a splendid opportunity to narrow this particular gap, without really compromising national interests or security, and to develop both Treaties in the direction of their solemnly professed fundamental goals.

This could be achieved, not by deleting the exemption of military activities, which would be unacceptable, but by extending the jurisdiction of the International Tribunal for the Law of the Sea, established by the L.o.S. Convention, to the application and interpretation, not only of the L.o.S. Convention, but of the Sea-bed Treaty as well. This would cover a limited range of cases which are categorized in the Brazilian working paper.21/ As far as the L.o.S. Convention is concerned, this appears already provided for. Article 21 of Annex 6 provides that the jurisdiction of the Tribunal comprises all disputes and all applications submitted to it in accordance with the L.o.S. Convention and all matters specifically provided for in any other agreement which confers jurisdiction on the Tribunal. Article 22 provides that, if all the parties to a treaty or a convention already in force and concerning the subject matter covered by the L.o.S. Convention so agree, any disputes concerning the interpretation and application of such treaty or convention may, in accordance with such agreement, be submitted to the Tribunal.

In view of the substantive overlap between the two

Treaties, it seems to be logical that disputes arising from verification procedures should be referred to the Tribunal.

All that is needed, then, is an appropriate reference in the Sea-bed Treaty. A paragraph 7 might be added to Article III of the Treaty, as follows:

> 7. States Parties shall settle any dispute among them, arising from verification procedures, by peaceful means in accordance with Article 2, paragraph 3, of the Charter of the United Nations, or with Part XV of the United Nations Convention on the Law of the Sea.

Thus a solution could be found for a problem arising from the Sea-bed Treaty which delegates knew existed at the time, but could not solve. There was no International Tribunal for the Law of the Sea at that time. There was no binding dispute settlement system. The L.o.S. Convention has changed this situation. It certainly would be worth looking at the old problem in the new light.

This, again, is a long-term proposition. But, again, it is not too early to start thinking about it now.

Conclusion

It is abundantly clear that the coming into force of the United Nations Convention on the Law of the Sea changes the context within which the Sea-bed Treaty must function. There are at least five areas where the two Treaties interact and where action should be taken by those who will be responsible for the further development of each.

The establishment of a consultative body of experts, responsible for fact-finding and other related activities, or for technology information, has been suggested on various occasions. Such a body could be the beginning of a development towards the internationalization of controls, and as such it would be highly desirable.

In the context of harmonizing the two Treaties one could think of a consultative body of a different kind: One could think of a consultative joint committee composed of Delegates designated by the Preparatory Commission for the International Sea-bed Authority and for the International Tribunal for the Law of the Sea, which is responsible for the Authority and the Tribunal, and of Delegates designated by the CCD, responsible for the further development of the Sea-bed Treaty. This Joint Consultative Committee should have the mandate to examine both Treaties, to study their interactions, and to make recommendations for harmonizing and strengthening both. The need for this kind of preparation for the Third Review Conference was clearly felt by the Delegations to the Second Review Conference.22/

An alternative would be to entrust this task to the International Law Commission. But since the problems that have to be dealt with are of a political rather than a strictly legal character, the solution of an ad hoc Joint Consultative Committee seems preferable.

In any case, some action should be taken with regard to harmonizing the terminology of the delimitation of the area to which the Sea-bed Treaty is applicable; with regard to a Resolution requesting systematic reports on the status of deep-sea exploration/verification technology; and something could be done to strengthen the links with the movements for regional denuclearization.

Other changes will have to wait until the L.o.S. convention will have been ratified and the International Sea-bed Authority will be in place. This may have happened at the time of the Third Review Conference, but it may, conceivably, take longer.

It is of the utmost importance, however, that the time between the Second and the Third Review Conference be used for careful and comprehensive preparations, at the national as well as at the international level. Disarmament experts

and Law of the Sea experts have worked in their separate sectors all these years, without taking much cognizance of one another. This pattern should be changed: Joint Committees should be established at the national, at the regional, and at the global level to prepare for the next, significant step towards Peace in the Oceans.

Notes

1. See CCD/PV.44, para.18 and STB/CONF/SR3, para.17,21, June 1977.

2. CCD/PV 441.

3. Mr. Charry Samper of Columbia, e.g., said, during the Second Review Conference: "The references in articles II and IV of the Treaty to the 1958 Geneva Convention on the Territorial Sea and the Contiguous Zone was therefore obsolete and consideration should be given to its replacement." (SBT/Conf.II/SR6, p.8)

4. Mr. Edelstain, Sweden. (See CCD/PV44, para.6)

5. CCD/269/Rev.1 and CCD/PV.449, p.18.

6.SBT/Conf.II/SR3, p.8.

7.During the Second Review Conference, Mr. Charry Samper (Colombia) proposed that the eighth preambular paragraph of the Treaty should be amended to read:

"Recognizing that the natural resources of the sea-bed and the ocean floor beyond the limits of national jurisdiction will play an increasing role in ensuring the economic progress of States, particularly of developing countries, and recalling that the United Nations Convention on the Law of the Sea, which was opened for signature on 10 December 1982, declared the zone of the sea-bed and the ocean floor beyond the limits of national jurisdiction the 'common heritage of mankind'."

8. The Final Declaration of the Second Review Conference has the following reference to the L.o.S. Convention:

Noting that the Third United Nations conference on the Law of the Sea has concluded and the Convention on the Law of the Sea was opened for signature on 10 December 1982,

Affirming that nothing contained in the Convention on the Law of the Sea affects the rights and obligations assumed by States Parties under the Treaty,...

9. Mr. Sawai,Japan (SBT/CONF/SR4, para.9, 22 June 1977).

10. CCD, PV 441, para 36, p. 12.

11. Pacem in Maribus IV, Proceedings, Malta University Press, 1973.

12.Pacem in Maribus X, Proceedings, 1980, "Summary of a Scheme of Maritime Surveillance and Enforcement for the Solomon Islands," by the Commonwealth Secretariat.

13. The idea of entrusting the Sea-bed Authority with the task of verifying compliance with the provisions of the Sea-bed Treaty is not new. As early as 1971, the Delegation of Canada introduced a working paper in the Sea-bed Committee which contains the following paragraph:

> 8. "The area shall be reserved exlusively for peaceful purposes, without prejudice to any measures which have been or may be agreed upon in the context of international negotiations undertaken in the field of disarmament and which may be applicable to a broader area. One or more international agreements shall be concluded as soon as possible in order to implement effectively this principle and to constitute a step towards the exclusion of the seabed, the ocean floor and the subsoil thereof from the arms race."
>
> This principle could be included virtually verbatim in the future seabed treaty,[the L.o.S. Convention], with appropriate modifications reflecting the endorsement by the General Assembly of the treaty prohibiting the emplacement of nuclear weapons and weapons of mass destruction on

the seabed and ocean floor. A difficult question that arises here is whether the international seabed machinery should be granted at least the same powers of verification of suspect activities as are granted to states parties under the seabed arms control treaty.

The inclusion of such a provision, on preliminary consideration, would appear appropriate and desirable. International sea-bed régime and machinery. Working paper submitted by the delegation of Canada, originally issued as A/AC.138/59. Report of the Committee on the Peaceful Uses of the Sea-bed and the Ocean Floor Beyond the Limits of National Jurisdiction. General Assembly. Official Records: Twenty-Sixth Session. Supplement No. 21 (A/8421).

14. See statement by George Ignatieff, Canada, in CCD/270.

15. SBT/CONF/Sr 3, 21 June 1977.

16. SBT/CONF/SR3, para.25, 21 June 1977.

17. SBT/CONF.II/SR8, p.2

18. SBT/CONF.II/SR6, p.8

19. Statement by George Ignatieft, Canada, CCD/PV. 441, para.9, p.6

20. CCD/267, 1 September 1969.

21. In para.5, the Brazilian Working Paper envisages a numberof situations where disputes, controversies, or conflicts of interpretation among Parties could arise. Some of them could comprise the following elements in several possible combinations:

(1) divergent interpretations concerning the nature or

ultimate purpose of an installation placed or implanted on the sea-bed and ocean-floor;

(2) disputes stemming from the manner in which an operation, in any of the stages of the control system, is conducted, specially when involving inspection, access and consequently interference with installations or activities on the sea-bed and ocean floor or with the security areas that can surround these installations;

(3) disputes related to control activities undertaken in waters superjacent to the continental shelf of any State Party to the Treaty or in its territorial waters when these have a width more than 12 miles;[no longer pertinent]

(4) conflicting contentions on the jurisdiction covering military or other installations on the sea-bed and ocean floor and on the responsibility for the emplacement of military or other installations on this environment;

(5) disputes arising from the lack of co-operation among States Parties in endeavouring to resolve questions regarding the fulfilment of the provisions of the Treaty as a whole and especially the norms of control.

22. E.g., The Delegate of Greece, Mr. Economides, pointed out that although the Conference was not the appropriate time and place for considering the relationship between the Treaty and the 1982 Convention -- which in any case was not yet in force -- that question would have to be thoroughly examined in the future in order to bring the two instruments into line. SBT.CONF.II/SR.6, p.10. The Delegate of Australia, Mr. Bateman, proposed that the final declaration of the Conference should include appropriate wording to lay the foundation for later harmonization between the Sea-bed Treaty and the 1982 Convention. SBT/CONF.II, SR.7, p12. And Mr. Gounaris of Greece suggested that, bearing in mind the very close relationship between the two Treaties, a special committee should be established prior to the third review conference in order to study the implications of the