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**NORMATIVE ASPECTS OF SCIENTIFIC RESEARCH IN THE OCEANS,  
THE CASE OF MEXICO**

by

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NORMATIVE ASPECTS OF SCIENTIFIC RESEARCH IN THE OCEANS,  
THE CASE OF MEXICO

by

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The main objective of this article is to examine the position of the government of Mexico regarding the scientific research activities conducted within its territorial sea by foreign vessels. However, this subject will be examined not only from Mexico's national point of view, but also from the angle of the position adopted by the Third World countries as related to the new concept of the patrimonial sea, now developing in the context of the contemporary international Law of the Sea.

Scientific research in the oceans could be generally presented in terms of two highly polarized trends: first, the position of technologically advanced countries (such as the U.S., USSR, France, Great Britain, Japan, etc.) which insist on supporting an absolute freedom of scientific research in the marine environment, with no limitations whatsoever. Secondly, the firm attitude adopted by the majority of developing countries which advocate the establishment of certain normative guidelines intended to minimize the excesses and abuses which have been committed in the name of the so-called freedom of scientific research.

# I. Position of the highly-advanced countries

The position of the highly developed countries could be synthesized as follows:

## 1) Complete freedom of scientific research in the oceans

It is considered that the search for information and knowledge in the oceans is not only a necessity - the sea being a vital component of an ecosystem covering the whole planet - but, in the marine area located beyond the territorial sea, a right which cannot be diminished or reduced by restrictive actions of the states, whether coastal or land-locked, except when these limitations have been recognized by International Law.

The highly developed countries are of the opinion that in Article 2 of the 1958 Geneva Convention on the High Sea, along with the traditional freedoms applicable to this oceanic space (freedom of navigation, of fishing, of laying cables and underwater pipelines, and overflight) there is an additional freedom: that of conducting scientific research in the high seas.

Mexico considers that in addition to the four fundamental freedoms forming part of the legal regime of the high seas, "others recognized by the general principles of international law" - as defined by the article - should also be included, among which the right to exercise certain scientific research activities within an adequate legal framework.

Mexico asserts that unrestricted scientific research cannot be conducted in the oceanic environment.

Due to the delicate ecological balance prevailing in the marine environment and because of the complex and diverse interactions of the different world areas, it is necessary that all scientific research activities be conducted in accordance with normative principles in order to avoid excesses, abuses or irreversible damage to the ocean environment or to the natural resources of the coastal state.

The only limitation which could be drawn from Article 2 of the 1958 Geneva Convention on the High Seas is that the scientific research activities be conducted without interfering with the four principal freedoms recognized in the Convention itself. However, scientific and technological developments are nurturing the field of international law, making it necessary, from a practical and legal point of view, to consider a series of additional normative guidelines.

The position of Mexico could be summed up by saying that at the moment, no State in the world should be allowed to conduct scientific research activities in the marine environment contrary to the provisions of international law, not only from lex lata point of view but especially taking into account de lege ferenda considerations.

2). Developing countries attempt to stop scientific research in the oceans by erecting legal and administrative barriers.

In the last five years developed countries have apparently taken advantage of all forums - national, regional or international - in order to advance claims against the less technologically advanced countries, arguing that these countries are against the scientific investigation in the oceans.

Even though in the last five years some developing coastal states have started to enact national legal provisions relevant to research activities in the oceans, it cannot be asserted that the Third World countries are against such an investigation or that they oppose human scientific progress.

Up to now there are only four countries in Latin-America which have promulgated some internal legislation applicable to marine scientific research by foreign vessels. The rest of the Latin-American countries, like the majority of the Third World countries in Asia and Africa, lack normative principles applicable to this type of activity.

Facts have shown that until the beginning of 1974 all scientific research activities in the oceans were virtually monopolized by a small group of technologically developed countries, operating without an appropriate legal framework.

3). The freedom to conduct scientific research in the oceans must be acknowledged since it is unrelated to the political or artificial boundaries established by Man.

It is evident that the very existence of oceans and seas, as well as the natural phenomena occurring therein, are totally unaffected by Man's will. There is no correlation between the political and sovereign boundaries of a State and that area where a multitude of physical, chemical and geological phenomena occur, although these effects could be the object of scientific investigation within a certain marine environment.

However, from an objective point of view, the presence of State boundaries of a political nature - this is to say, arbitrarily established by man, disregarding scientific consideration - has not hindered the development of other areas of human knowledge.

For instance, it is not exclusive to marine geology or ichthyology that the phenomena which arouses the scientists's interest happens to transcend the political boundaries established by Man. This is also true in other branches of human knowledge. However, there has not been known a case of a geologist who, carried away by his scientific eagerness, decides to leave his native country, illegally crossing the border, in order to continue his research in a territory under another country's sovereignty.

The scientific and technological interactions among the different countries of the world could be greatly improved when their scientists, in addition to concerning themselves with academic or scientific research, also decide to take into consideration matters of a different nature, including political, cultural and social affairs.

4). The slightest type of regulation of marine scientific activities constitutes an obstacle to or restriction of such an activity.

Not every regulation is a restriction. Contrary to the position taken by the technologically advanced countries it is necessary to point out that the term "regulation" should not always be construed as implying something negative. For instance, in this case the legal provisions applicable to marine scientific research activities by foreign vessels have been formulated with the specific purpose of contributing to a more methodic and rational development of the oceans.

These activities must be tied to certain regulatory principles. It is not possible to imagine them being carried on - as it was until recently - in a complete absence of an adequate normative framework.

It is necessary that the marine scientific community recognizes the fact that their activities should comply with certain principles established by the appropriate legal instruments.

Possibly, this would imply that oceanographers from technologically developed countries will need to change or modify their mental attitudes in this regard. Yet, scientists are beings accustomed to living in a world of principles, formulae and norms.

If we start from this undoubtedly valid premise, it would be easy to conclude that the establishment of general normative guidelines pertinent to oceanographic research activities by some political or administrative structure - whether the coastal State, some specialized body (regional or international) or a multilateral treaty - should be accepted without objections by the oceanographers.

The contemporary world requires the existence of order and control, of a reasonable and adequate normative framework which could be applied to every type of use of and activities in the seas and oceans, with the purpose of achieving a more rational and beneficial atmosphere for the international community and especially for the coastal states and marine scientists.

The foundations or justifications which developing coastal states could employ when they regulate marine research activities, can be distributed into different categories:

a). Economic Factors

The littorals and offshore waters of most developing countries are abundant in marine resources; there exists a sometimes subtle and at other times very clear correlation between the oceanographic research activities and the discovery and exploitation of the marine resources.

Developing countries are aware that the control of science and technology are of primary consideration for economic and social progress.

b). Strategic factors (military security)

There are some marine areas in which access to foreigners for scientific research purposes is forbidden. The execution of a secret experiment, the existence of a military weapons warehouse, the placement of electronic detection devices, the discovery of certain animal or plant species, etc. are some of the reasons commonly used to justify such a prohibition.

c). Diplomatic and political factors

Some of the developing countries have taken advantage of the marine scientific research activities which are not of vital importance to them - at least not as much as they are for technologically advanced countries - in order to obtain concessions in other fields which are of importance to the Third World countries.

II. The Latin American position

In the middle of the 1970's a series of regional meetings started in several Latin American countries with the purpose of unifying the position of the countries of this region, as well as coordinating their activities in order to present a uniform position before the international arenas.

1). The Montevideo meeting

This meeting took place May 4-6, 1970. The nine countries represented were those which at that moment had been claiming 200 nautical miles of jurisdiction or sovereignty over the sea adjacent to their coasts. This international gathering was convoked with the purpose of organizing an international front which would allow them the protection of their maritime sovereignty, as well as the coordination of their chanceries positions. However, the "Montevideo Declaration on the Law of the Sea" there are no express dispositions about scientific research in the oceans.

2). The Lima meeting

Several months later, 20 delegations and 8 observing countries participated at the "Latin American meeting on certain aspects of the Law of the Sea".

The Lima Declaration is the first multilateral document, within the Latin American context, in which express reference is made to the marine scientific research activities.

Resolution No. 5 of the Lima meeting was dedicated in toto to the treatment of the legal aspects of the scientific research in the oceans.

The Lima Declaration includes the last and only common position reached by 20 Latin American countries regarding this type of activity. It includes four basic premises, which are shared by the great majority of the Latin American countries. They are:

- a). The recognition that scientific research activities in the oceans requires the widest possible cooperation among the States.
- b). The right of the coastal State to authorize any type of oceanographic activities conducted in the adjacent sea under its sovereignty or jurisdiction.
- c). The right of littoral State to supervise all types of scientific research activities carried out in the area of the marine environment under its sovereignty or jurisdiction.
- d). The coastal State's right to participate in all the scientific research activities to be carried out in any maritime jurisdictional areas.

In one of its conclusions, Resolution No. 5 recommends to the participant governments to keep adequate coordination and harmony in their position before the different international forums dealing with problems of this nature.

From a legal point of view, Resolution No. 5 reasserts four cardinal principles on the subject for the Latin American countries:

- a). That every scientific investigation to be carried out within the maritime jurisdiction of a State is subject to the previous authorization of that State and should adjust to the conditions of said authorization.
- b). That the coastal State has the right to participate in all the investigations taking place in marine areas under its jurisdiction, and to benefit from the information and data obtained from that investigation.
- c). That all samples obtained as a result of these investigations belong to, and are the property of, the coastal State. Only if the State gave its authorization would it be possible for those making investigation to take legal possession of the samples.
- d). That all authorized scientific investigation as such, should strictly and exclusively keep its scientific nature.

### 3) The Venezuela meeting

The "Informal Consultative Meeting of Foreign Affairs Ministers of the Caribbean Sea Countries" was held in Caracas on November 24-26, 1971.

Thirteen Caribbean countries participated and the discussion of marine matters was entrusted to the General Commission of that meeting.

The main result of the meeting was to call these countries for a

specialized conference which would be held in the Dominican Republic several months later.

The need to intensify the marine research efforts in the Caribbean coastal States, especially through international scientific cooperation mechanisms, was pointed out.

#### 4). Specialized Conference of Santo Domingo

The "Caribbean Countries Specialized Conference on Problems of the Law of the Sea" was held in Santo Domingo from June 5 to 9, 1972. Fifteen countries participated in this conference which produced the Santo Domingo Declaration.

This document's fundamental importance lies in the fact that for the first time in Latin American history (appears in a multilateral instrument) the new concept of the so-called "patrimonial sea".

The influence of the Santo Domingo Declaration can be perceived in Subcommittee III of the Committee on the Seabed and Ocean Floor. The proposal submitted before this subcommittee by five Latin American countries includes, among others, the three principles recorded in the Declaration of Santo Domingo:

- a) The right of the coastal State not only to promote, but also to select and facilitate scientific research activities within the area controlled by the coastal State.
- b) The right of the coastal State to regulate scientific oceanographic activities conducted in the zone under their maritime jurisdiction and sovereignty.
- c) The clear intention of the coastal State to assert its sovereignty over the marine resources in the adjacent seas with the purpose of securing their more efficient use as well as the adequate preservation of the marine environment.

### III. The position of Mexico

Endowed with singular geographic and ecological characteristics, Mexico has recognized in the last few years the vital importance of the sea and its resources.

It has been calculated that if the sovereign rights of coastal States are ever recognized as reaching the edge of the continental rise, Mexico would incorporate into its national territory an area of more than 214,100 square meters beyond the 200 meter isobath.

On the other hand, it has been recognized from a scientific point of view that little is known about the potential offered by the Mexican seas to help improve the quality of life of its inhabitants as well as the economy of the country.

This acknowledgement is precisely what has motivated from the official

as well as the academic point of view, activities in the country whose purpose is to adequately strengthen the scientific-technological infrastructure related to the sea.

1). Information of CONACYT about foreign vessels

According to the pertinent Mexican legislation, all the applications filed to conduct scientific investigations in Mexico's territorial seas are processed by the Ministry for Foreign Affairs (Secretaria de Relaciones Exteriores) which received them through the usual diplomatic channels. This branch of the Executive weighs the opinions of other official, academic, scientific or technological institutions regarding the advantages which the proposed scientific investigation would have upon the country, before granting the authorization.

CONACYT, in order to be able to fulfill its duties, should "be informed of the investigations performed by foreigners in Mexico. (with this information at hand, CONACYT) could proceed to advise the Secretary of the Interior (Secretaria de Gobernacion) and the Ministry for Foreign Affairs".

From January 1st, 1972 to December 31, 1973 CONACYT received through this Ministry fifty-four applications from foreign institutions interested in carrying out scientific investigation activities in Mexico's territorial waters. Of this total, 49 scientific cruises were approved (90.7 percent) and five applications were declined.

The information obtained through the 49 approved cruises was very limited: 19 notices of cruises and 7 reports of cruises which in spite of furnishing 26 documents (48.1 percent) did not produce any scientific information.

CONACYT statistics seem to indicate that the scientific information provided to Mexico's academic and scientific community as a result of the 49 authorized expeditions conducted within its territorial seas in the last 2 years is extremely poor (less than 2 percent).

It could be said, however, that Mexico's case is not an exception to what is happening in other Third World countries.

Up to now none of the highly developed countries, which are interested in marine investigation, have a mechanism - official or private - which will ensure that the information produced by a scientific expedition authorized by a given coastal state, will eventually be made available to the proper offices of that State - whether governmental, scientific or academic. The importance of fulfilling this requirement - or if it is not, the notoriety of its nonfulfillment - is governed by the fact that the great majority of the world's coastal States (of not all of them) requires the acquisition of information as a sine qua non condition in order to extend to a foreign oceanographic vessel the legal authorization to conduct the investigation.

It seems unquestionable that the creation of some mechanism to ensure

the fulfillment of this requisite, would create a more fluid and constructive relationship among the scientific communities of the different countries interested in oceanographic matters. This step should be highly beneficial toward the creation of a truly international scientific cooperation.

## 2). The Legal Regime

Traditionally, the ocean space has been divided into a series of different areas each of which receives different legal treatment. In the maritime zones closer to the coast, the riparian state exercises either its sovereignty, or the totality of its specialized competences.

As the ocean space recedes from the coast, the coastal state gradually begins to lose such control and authority.

Going back to the traditional approach which is still valid in the field of International Law of the Sea, we shall proceed to describe Mexico's legal position regarding scientific research by foreign vessels in the following ocean spaces: internal waters, territorial sea, continental shelf, patrimonial sea and high seas.

### a) Internal waters

Contrary to the situation prevailing in the territorial sea, in the internal waters the right of innocent passage does not exist. International Law authorities are of the unanimous opinion that the internal waters are under the sovereignty of the coastal state, identifying this section of the ocean space as an integral part of the territory of the nation itself.

In Mexico's case, the 1917 Constitution, as well as secondary legislation, ascribe to the concept of patrimonial rights of the nation over its immediate maritime spaces, thus closely keeping pace with traditional trend followed by most Latin American nations.

It should be evident that to Mexico, as well as to other littoral states, more than property rights over the internal waters (jus dominium), the State exercises full-fledged sovereignty, as it does over its territory (jus imperium).

By a decree of August 30, 1968, Mexico employed the straight baseline system to delimit the territorial sea boundaries in the interior of the Gulf of California. As a result of this, several ocean spaces existing between the fringe of islands in the Gulf and the coasts of Mexico became internal waters, including a substantially large marine area north of the island of San Esteban.

Returning to the subject of scientific investigation of the oceans, no foreign oceanographic vessel will be allowed to carry out scientific research activities in these internal waters unless it requests and obtains express authorization from the Mexican government.

In compliance with the exception established in Article 5 (2) of the Convention on the Territorial Sea and the Contiguous Zone, the government of

Mexico expressly acknowledges that in the maritime area located north of San Esteban island, as well as in other regions of the ocean which had previously been considered as part of the high seas and which later became internal waters, the right of innocent passage shall be respected.

From Mexico's point of view, no scientific research activity shall take place within its internal waters by foreign vessels without permission having previously been granted by the competent authorities.

b). Territorial sea

In accordance with the advances of contemporary science and technology, the region of the ocean space traditionally known as the territorial sea continues to be the area receiving the greatest attention by the world marine scientific community. And this situation will continue for many more decades.

Even though three world conferences did not reach an agreement on the maximum width of this maritime belt, internationalists unanimously acknowledged that the rights of the riparian state over its territorial sea "do not differ, in nature, from the sovereign rights which the state exercises on other parts of its territory".

On December 27, 1969 Mexico widened its territorial sea from 9 to 12 miles.

It should be evident that if the ocean strip known as territorial sea is under the coastal state's sovereignty no activity of a scientific nature shall be conducted by foreign vessels or instruments without express authorization from the coastal state, which shall grant the corresponding permission.

Scientific research activities by foreigners in the ocean space subject to the exclusive domain of the littoral state (internal waters and territorial sea) have always been under the control and authority of said state.

Therefore, this is a legitimate right of the coastal state deriving directly from its sovereignty and it has always been exercised since modern principles of international law were established.

It is universally recognized that the right of innocent passage is the only exception to the sovereignty which the riparian state exercises over its territorial sea.

Insofar as marine scientific research is concerned, Mexico fully acknowledges the right of innocent passage; however, it must equally be asserted that Mexico does not consider innocent passage the fact that a foreign research vessel, while en route through Mexican territorial waters, should engage in scientific investigative activities.

The problem is to determine whether certain scientific research activities are compatible with the right of innocent passage. In this regard, Mexico has adopted the thesis that any vessel using the right of innocent passage shall be

able to carry out certain scientific activities (gravimetric explorations, depth measurements, wind speed measurements, etc.) but only when such activities are necessary for a safe navigation.

### c). Continental Shelf

From the angle of scientific investigation of the oceans, marine research undertaken above, or simply in relation with, the continental shelf, have stirred controversial opinions since 1958.

It should be understood that the coastal state exercises sovereign rights over its continental shelf insofar as the exploration and development of its natural resources is concerned. From a legal standpoint, this adjacent submarine zone is considered to be an integral part of the territory of the riparian state, notwithstanding the fact that such territory is covered by the ocean waters.

Mexico's continental shelf comprises a quarter of a million square miles and it has proven to possess in its subsoil important oil and gas deposits.

According with the present 1917 Constitution, its Article 27 establishes that corresponding to the nation is the direct dominion over all natural resources in the continental shelf and the submarine platform of the islands, which implies that the Mexican State exercises absolute sovereignty rights upon the site over which such resources are located.

Therefore, if the continental shelf is under the nation's sovereignty, it follows that Mexico has the right to control and reasonably regulate the conduct of scientific research activities relating to the Mexican continental shelf and carried out there; in these cases, the consent of the competent authorities of Mexico should be obtained.

What should be understood by Mexican continental shelf? It is the submarine zone adjacent to the continental and insular coasts of Mexico, including the seabed and its subsoil, as well as the natural resources existing therein, which is located outside the Mexican territorial sea to the outer limit of the continental rise.

Mexico has systematically upheld before a number of international forums that the outer boundary of the continental shelf of any riparian country should be the one which, is established by the greatest technological advancement of any given state in a given moment.

In the "Draft Treaty Articles presented by the Delegation of Colombia, Mexico and Venezuela" before the Preparatory Committee of the Third United Nations Conference on the Law of the Sea, a new element was introduced with respect to the outer boundary of the continental shelf. Instead of conditioning such boundary to the ever changing advances of technological development, it resorts to settle it on a permanent basis using as a guideline the old geomorphological criterium. Thus, Article 13 establishes that the outer boundary of the continental shelf reaches "to the outer limit of the continental rise that borders with the oceanographic basin or abysmal depths".

The following conclusions can be drawn:

- 1). Mexico's continental shelf is part of the ocean space under

the direct and exclusive domain of the nation.

2). No entity or individual person, national or foreign, shall be able to carry out activities of scientific research without having obtained beforehand the express consent of the competent authorities.

3). Suitable permission should be obtained in order to deploy in or over its continental shelf, or in the superadjacent waters, any device or instrument with scientific investigation purposes.

#### 4). Patrimonial Sea

The President of Mexico, before the Plenary of the Third United Nations Conference on Trade and Development (UNCTAD) held in Santiago, Chile, asserted that Mexico in the forthcoming Law of the Sea Conference shall strive, through a global convention, for the legal recognition of a patrimonial sea up to two hundred nautical miles where the coastal states can exercise free of controversies, exclusive and preferential fishing rights and, in general, have the control over any other economic resources.

As this is a concept still in the process of being consolidated, the legal nature of the patrimonial sea has not yet been clearly defined.

The patrimonial sea shares some of the characteristics associated with the legal regime of the high seas, such as the freedoms of navigation, overflight and laying of marine cables and pipelines. It also has similarities with the contiguous zone because in the patrimonial sea the riparian state projects its specialized competences with a specific purpose, including fishing, prevention of marine pollution, fiscal matters, etc. Furthermore, the patrimonial sea includes territorial sea elements, such as the right of the coastal state to utilize and regulate the natural marine resources therein.

It can be asserted that the rights the riparian state enjoys in the patrimonial sea include, specifically, the following:

- 1). Utilization and regulation of fish and other renewable resources
- 2). Utilization and control of mineral resources (non-renewable resources).
- 3). Regulation of scientific research activities, insofar as these affect marine resources.
- 4). Prevention and control of marine pollution.

Although the right to regulate and control such scientific research activities in the ocean operates fully and unquestionably in the territorial sea, it is expected that the coastal state will also extend this control into the exclusive economic area known as the patrimonial sea.

#### e). High Seas

According to the Convention on the High Sea Freedom of the high sea comprises, among others, the freedoms of navigation, overflight, fishing and laying of cables and submarine pipelines. Mexico shares the position of those countries maintaining that the freedom to conduct marine scientific research is one of the freedoms of

of the high seas.

This country sustains the view that scientific research activities, as well as fishing and other activities, should not be conducted in the high seas unrestrictively, but should be conducted within an adequate international legal framework.

Mexico and other countries have acknowledged certain principles not previously associated with the regime of the high seas:

- 1). The seabed and ocean floor and its resources, beyond the patrimonial sea and of the continental shelf, are the common heritage of mankind.
- 2). Freedom of fishing in the high seas should neither be unlimited nor indiscriminate.
- 3). Scientific research activities carried out in the seabed and ocean floor and its subsoil (including resources) beyond the limits of national jurisdiction, should be undertaken by the "International Seabed Authority".

Such activities should always be subject to the authorization, regulation and supervision of the aforementioned authority.

#### CONCLUSION

The first Conference on the Law of the Sea had barely finished its codifying efforts in April 1958 (which resulted in the four well-known Geneva conventions) when the emergence of sociopolitical and economic factors, and particularly the amazing developments of science and technology, demonstrated the near obsolescence and tardiness of some of its legal principles.

Perhaps the disparity between the content of International Law of the Sea principles, and the social environment where such legal norms are to be enforced, suggest the powerful process of transformation affecting some of the principles of the Law of the Sea, which until recently were still reputed as classical. Furthermore, the emerging trends in the realm of international relations, structured upon regional solidarity and scientific and technological advances, have already started to create new legal concepts and even legal institutions signaling a new dimension in the field of the Law of the Sea.

Mexico acknowledges that the legal structure which regulates and controls the public order in the oceans is currently going through a critical process of substantial transformation.

The progressive development of this part of International Law shall soon produce the formulation of guidelines, principles and legal institutions that shall be authentically responsive to the variety of interests and expectations of the world community, taking into account the significant role that Third World nations will

play in the coming restructuration of this ruling body.

It is to be expected that at the Third Conference on the Law of the Sea to be held in Caracas, Venezuela, on June 20 - August 29, 1974, different issues in the agenda will receive different treatments: a) Certain legal concepts, which until now have remained ambiguous, will attain a definite and precise definition, such as the maximum width of the territorial sea or the outer boundary of the continental shelf; b) the recognition of certain rights, which apparently have not been settled, as could be the case of the preferential rights of the coastal state (e.g.: exclusive economic zone or patrimonial sea) is also to be expected; and c) the appearance of new principles and institutions shall be approved, such as the recognition of the seabed and ocean floor as the common heritage of mankind, or the functions assigned to the international seabed authority, etc.

In addition to all these consideration, it seems to be evident that the forthcoming world conference will also recognize the growing significance that marine scientific research operations have in connection with virtually any use or activity undertaken in the marine environment. It could be asserted that none of the previously international or regional meetings on law of the sea had ascribed such importance to the legal aspects of oceanic research as the conference in Caracas.

This international meeting, which will be attended by about 150 countries, will set up the basic general principles applicable to scientific research activities performed in any ocean space under the sovereignty or jurisdiction of the coastal state. Probably, guidelines of a similar nature shall be formulated in order to be applied to the seabed and ocean floor area beyond the limits of national jurisdiction.

Perhaps these fundamental principles shall require, in order to be adequately applied, a more detailed legal definition which shall render them suitable to the individual conditions of the diversity of marine coasts, either on a national or regional basis.

Internally, Mexico shall continue to strive for the formulation of a coordinated and uniform national policy, geared toward the optimum utilization of its ocean and the rational development of its resources, both renewable and non-renewable. This matter is becoming increasingly urgent. It shall also be necessary to continue to strengthen the scientific and technological infrastructure connected with the ocean, as well as to emphasize the formation of human resources in the different areas of the marine sciences.

At the international level, Mexico realizes the drastic differences in science and technology which separate the highly industrialized nations from the developing countries, particularly relating to the ocean. This implies that, in the future, the flow of interaction and communication between these two categories of countries should notably increase, especially regarding transfer of information and documentation. Suitable regulatory instruments shall establish the basis so that these interactions and this communication shall unfold through equitable channels, free from obstacles, thus solidifying an authentic international cooperation.

Scientific research activities in the oceans could result in genuine coordinated efforts of a international nature, since Mexico shares the opinion that such activities do not recognize boundaries. Without them, there could be neither an objective understanding of the marine phenomena, nor a rational development of the ocean resources. Without such scientific activities it might never be possible to reach the understanding and agreement which is so important among world scientists. The sea, far from dividing us, is the element that can best unite us.

## ADDENDUM

Results of the Caracas Conference on Marine Scientific Research

During the second session of the Third United Nations Conference on the Law of the Sea, held in Caracas, Venezuela, June 20-August 29, 1974, the Third Committee considered the following three items: preservation of the marine environment, including prevention of pollution (Item 12), marine scientific research (Item 13) and development and transfer of technology (Item 14).

In conformity with the organization of work decided upon by this Committee on July 11, 1974, its activities were organized in both official and unofficial (informal) meetings. There were ten informal meetings from July 23 to August 23, 1974.

At its second official meeting, held on July 11, the Third Committee accepted a proposal by its Chairman, Dr. Alexander Yankov, of Bulgaria, that it should start its activities with a brief general discussion to enable delegations to make statements on all of the three items included within its mandate. At the conclusion of the general discussion, the Committee agreed to hold its unofficial meetings to consider alternately and on a daily basis, item 12 at one meeting, and items 13 and 14 at the following meeting.

On this basis, during the general discussion (from 7th to the 9th meetings on July 18 and 19, 1974) 42 delegations made statements on marine scientific research and technology transfer, including the Mexican delegation (Annex No. 1 shows the list of those 42 delegations, as well as the reference made by each of them regarding 14 specific topics).

There were four major elements included in the statement made by the Mexican delegate on July 19 (Eighth meeting, UN Doc. A/Conf.62/C.3/SR.8):

- a). It is not possible to accept unrestricted marine scientific research;
- b). It is indispensable to obtain the express consent of the coastal State to conduct marine scientific research activities within the maritime areas under its sovereignty and jurisdiction;
- c). The coastal State has the right to establish a number of requirements to control and regulate marine scientific activities;
- d). However, once the researching State has fulfilled bona fide the totality of the requirements established, the coastal State should not normally withhold its authorization.

Following the model established by the Working Group on Marine Pollution, the Third Committee agreed on July 23, 1974, that when it held its unofficial meetings to consider marine scientific research and technology transfer it should be under the Chairmanship of Dr. Cornel A. Metternich, of the Federal Republic of Germany. He made regular weekly reports to the Committee on the progress made on July 26 and August 5, 9, 16 and 23, 1974.

At the request of the committee, the Secretariat prepared an informal comparative table of all the proposals formally submitted to Sub-Committee III of the Sea-Bed Committee. The informal meetings agreed that this comparative table, which included eight specific headings, should be considered as a tool for reference purposes only and should in no way prejudice discussions on any one of the subjects.

A description of the work done during the informal meetings appears in the note which the Chairman of the Working Group on Marine Scientific Research transmitted to the Chairman of the Third Committee (UN Doc. A/CONF.62/C.3/L.16 of August 23, 1974), along with the texts of draft articles whether agreed upon in the drafting and negotiating group or appearing as alternatives. A reference is also made in the same document to the five new proposals formally submitted to the Committee, namely: three proposals on marine scientific research, presented by Trinidad and Tobago, Colombia (on behalf of the Group of 77) and the Federal Republic of Germany. The remaining two, submitted by Nigeria and about 30 States from the Group 77, dealt with technology transfer.

Only a few of the eight headings comprised in the outline of the Working Group on Marine Scientific Research (informal comparative table) were discussed, due to the lack of time. The headings in question were:

1. Definition and objectives of marine scientific research.
2. Conduct and promotion of marine scientific research.
  - a). Right to conduct marine scientific research.
  - b). Consent, participation and obligations of coastal States.
  - c). General conditions for the conduct of marine scientific research.
3. International and regional cooperation for marine scientific research, including exchange and publication of scientific data.
4. International ocean space institutions.
5. Status of scientific equipment in the marine environment.
6. Responsibility and liability.
7. Settlement of disputes.
8. Obligations under United Nations Charter and other international treaties.

The last three heading were not discussed at all by the informal working Group. Regarding the definition and objectives of marine scientific research, proposals were submitted by the delegations of the Netherlands, Sudan, Spain and Egypt, which were added to the half a dozen proposals already presented before Sub-Committee III of the Sea-Bed Committee.

With respect to the status of scientific equipment in the marine environment, Argentina, Kenya, France and a group of four socialist countries (Bulgaria, Poland,

Ukraine and the USSR) submitted proposals. Under the Argentinean and Kenyan proposals the emplacement of any type of scientific research installations in areas under the sovereignty and/or jurisdiction of the coastal State shall be subject to the authorization and be under the jurisdiction of such coastal State. The other two proposals established that such installations shall be subject to the jurisdiction of the State which installs them, unless other provisions are made between interested parties.

A formulation of a set of general principles for the conduct and promotion of marine scientific research and a number of consolidated articles concerning international and regional cooperation for marine research, which were agreed upon by the informal meetings, probably constitute examples of the most constructive results achieved by the Third Committee. It should be mentioned that the general principles approved were virtually the same presented by the Mexican delegation with the co-sponsorships of Colombia and Venezuela (Doc. CRP/Sc.Res./27 of 5 August, 1974). These principles state that marine scientific research activities shall be conducted exclusively for peaceful purposes, that they shall not unduly interfere with other legitimate uses of the sea, that such activities shall comply with regulations established for the preservation of the marine environment and that they shall not form the legal basis for any claim whatsoever to any part of the marine environment or its resources.

The major part of the debates of the Third Committee's informal meetings on marine research centered upon one of the most sensitive and controversial issues; namely, the conduct and promotion of marine scientific research which appeared as heading number two in the outline of the informal comparative table. In most general terms, those debates could be classified into the four following trends:

#### Trend A

It holds that the coastal State has the exclusive right to conduct, regulate and control marine scientific research activities undertaken in oceanic areas subject to the sovereignty or jurisdiction of such coastal State. Therefore, no scientific activities could be undertaken without previously obtaining the coastal State's express consent or authorization, which has sovereign right to establish a number of requirements or conditions applicable to marine scientific research.

Undoubtedly, this is the trend which the largest number of delegations of the 149 participating States in the Caracas conference support.

The proposal introduced by the delegation of Colombia, as Chairman of the Group of 77, entitled: "Draft articles on marine scientific research" (UN Doc. A/CONG.62/C.3/L.13 of 22 August 1974), constitutes one of the most representative documents of this trend. It could be described as an "absolute consent" thesis in favor of the interests of the coastal States.

Among the eleven requirements established by this proposal, which should be met by the researching State so it may be authorized by the coastal State to undertake marine scientific research activities in ocean areas under its sovereignty

and jurisdiction, the following should be mentioned: undertake to supply on time all raw and processed data, including the final evaluations and conclusions and samples to the coastal State; undertake that results of scientific research shall not be published without the explicit consent to the coastal State; assist the coastal State in assessing the implications of the data, samples and results obtained, including the right of the coastal State to supervise, control and even suspend or terminate such marine scientific research activities when they are not being carried out for the declared objective or purpose of the research, etc.

#### Trend B

This could be considered a conciliatory or eclectic type of trend, since it includes elements from two other trends: the absolute consent and the absolute freedom of scientific research.

This trend asserts that marine scientific research in the economic zone shall only be conducted with the consent of the coastal State, recognizing marine scientific activities. The conciliatory elements appear when this trend stipulates that the coastal State's consent shall not normally be withheld when the researching State has fully met the requirements established by the coastal State.

The Mexican delegation had an important participation during the formulation of the content of this trend. Countries such as Venezuela, Colombia, Guyana, Spain, Canada, Australia, Denmark and Ireland, also contributed to give it a better formulation.

In the Third Committee's eighth session of 19 July, 1974, the Mexican delegate referred to this question in the following way: "We would like to reiterate our decision that no marine scientific research activity can take place in the territorial sea, the patrimonial sea or the continental shelf, without the prior authorization of the coastal State. However, it should be noted that the coastal State shall not unduly or arbitrarily withhold its authorization to undertake marine scientific research activities in the patrimonial sea (economic zone) when the researching State has fulfilled the totality of the requirements established (UN SOC.: A/CONF.62/SR.8 of 25 July 1974).

The document which was considered as a good example of this trend was prepared taking into account the basic elements advanced by the Mexican delegation, which were enriched later on with the contributions of the majority of other delegations supporting this trend. Unlike the other documents representing trends, this one was not contained in a formal document of the "L" series but merely in a conference room paper (Doc. CRP/Sc.Res./38 of 20 August 1974).

It seems that this trend offers great possibilities to establish the firm basis which will eventually lead to an area of agreement by the Third Committee on this question, which has proven to be one of the most delicate and controversial issues.

#### Trend C

It establishes that all States, whether coastal or landlocked, as well as

appropriate international organizations, have the right to conduct marine scientific research subject to the provisions to be established in a proper convention. It recognizes that such marine scientific research within the territorial sea may be conducted only with the consent of the coastal State.

The most important part of this trend asserts that in order to conduct marine scientific research activities "beyond the territorial sea, in areas where a coastal State enjoys certain rights over resources" (economic zone), it is necessary simply to give advanced notification of the proposed research project to the coastal State, which has certain rights concerning such activities. This trend also establishes that all States may freely undertake marine scientific research in the international area.

The proposal introduced by the delegation of the Netherlands, sponsored by 16 other countries of Western Europe, Asia and Africa, including Bolivia and Paraguay from Latin-America (UN Doc.A/CONF.62/C.3/L.19 of 23 August 1974), is considered to be the document which accurately describes this trend. This proposal comprised eight articles.

#### Trend D

Adopted by countries such as France, Japan and the USSR, this trend, unlike the other three, was not contained in one document but in several. Thus, it was necessary for the chairman of the Working Group on Marine Scientific Research to structure it - even with the risk of certain artificiality - on the basis of the statements and proposals made by the different delegations which supported this thesis.

According to this trend, States and appropriate international organizations have freedom to carry out marine scientific research in areas where coastal States enjoy economic rights over marine resources, except that marine scientific research aimed directly at the exploration or exploitation of the living and non-living resources shall be subject to the consent of the coastal State. Requests for consent shall be submitted well in advance and shall be answered without undue delay. In the international area all States, whether coastal or land-locked, and appropriate international organizations have the freedom to undertake marine scientific research related to the sea-bed subsoil and super-adjacent waters.

This trend appears to be in discrepancy with those delegations which expressed the view that it is virtually impossible to establish a clear difference between "pure" scientific research and "applied" research. Most of those delegations are included in the trend of the absolute consent (Trend A).

After a period of intense deliberations, the Third United Nations Conference on the Law of the Sea decided that its third period of sessions will take place in Geneva, Switzerland, from March 17th to May 10, 1975, instead of having it in Vienna, as originally planned.

With respect to the Third Committee, it is evident that the progress achieved in Caracas should motivate the participants to renew their work in order to arrive at the formulation of an international instrument which, on a global basis, regulate marine scientific research activities. Although this Committee

agreed on some texts, it is obvious that one of the most controversial issues - namely, the coastal State's consent - was not solved. However, the debates on this matter and the definition of four specific trends established the basis for future constructive negotiations. Other equally sensitive issues include the obligations and responsibilities of both the coastal and the researching States, the peaceful settlement of disputes and the special legal treatment which certain artificial means used in the conduct of marine scientific research - such as satellites and OpAS - should receive.

A preliminary evaluation of the Third Committee's work could be described as follows:

1. During the informal sessions, several texts regarding basic general principles on marine scientific research and regional and international cooperation were agreed upon by the Third Committee. Even if this was a modest achievement, neither of the other two Committees produced equal results.
2. The positions adopted by most delegations attained a clearer definition during the Caracas session. Instead of having only two major trends, as it happened during the work of Sub-committee III of the Sea-Bed and Ocean Floor Committee, four of them were clearly formulated. This constitutes an important result if it is recalled that only at Caracas 42 conference room papers and 4 formal proposals were introduced on marine research questions.
3. The Group of the 77, now constituted by 109 members, had a most important role throughout the whole conference, particularly in the Third and the First Committees. Such a group produced two formal proposals: on marine scientific research and technology transfer. It is likely that it will generate a third proposal on marine pollution during the third session of the Conference at Geneva.
4. Taking into account the importance which marine scientific research has within the overall context of the Conference, it is expected that the Geneva session will generate the fundamental principles which will be finally included in a marine scientific research convention.

NON-MEXICAN VESSELS WHICH CONDUCTED MARINE SCIENTIFIC RESEARCH CRUISES WITHIN MEXICO'S TERRITORIAL SEA IN 1972-1974\*

1. Applications received by CONACYT to conduct scientific cruises

77 Applications

10 Requests declined (Commercial purposes)

67 Authorized scientific cruises

57 Mexican participants (Scientists)

2. Nationality of the research vessels requesting authorization to conduct scientific cruises

72 USA

2 USSR

2 Federal Republic of Germany

1 Japan

3. Type of institution requesting the authorization

45 Academic institutions

20 Official institutions (Government)

9 Corporations

3 Foundations

4. Type of scientific research declared by the institutions in their applications

22 Marine biology

13 Physical oceanography

10 Biological oceanography

10 Geophysics

10 Fisheries biology

10 Marine geology

4 Chemical oceanography

2 Marine geodesy

2 Marine ornithology

2 Oceanographic instrumentation

2 Oil prospecting

\*Data compiled by the legal Department of the National Council for Science and Technology (CONACYT) of Mexico

Generally, each research vessel conducts several types of scientific research.

5. Resulting information received by CONACYT

Technical reports	Cruise reports	Cruise notices	None
1	7	64	2

6. Area in Mexico where the research was conducted

Baja California's West Coast	Gulf of California	Pacific Ocean
28	19	16
Caribbean Sea	Gulf of Mexico	Revillagigedo & Coronado Islands
8	7	3

7. National or multinational type research program

63 National programs

7 Multinational programs

(4 Cicar, 2 Calcofi and 1 Idoe)

