

University of Miami Law School Institutional Repository

University of Miami Inter-American Law Review

10-1-1974

The Oceans

T. A. Clingan Jr.

L. G. Mallon

Follow this and additional works at: <http://repository.law.miami.edu/umialr>

Recommended Citation

T. A. Clingan Jr. and L. G. Mallon, *The Oceans*, 6 U. Miami Inter-Am. L. Rev. 871 (1974)

Available at: <http://repository.law.miami.edu/umialr/vol6/iss3/11>

This Report is brought to you for free and open access by Institutional Repository. It has been accepted for inclusion in University of Miami Inter-American Law Review by an authorized administrator of Institutional Repository. For more information, please contact library@law.miami.edu.

THE OCEANS

THOMAS A. CLINGAN, JR.
Professor of Law
University of Miami

and

LAWRENCE G. MALLON
L.L.M. (Ocean Law)
University of Miami

THIRD UNITED NATIONS LAW OF THE SEA CONFERENCE

Editor's Note: Professor Clingan, a member of the U.S. Delegation to the Law of the Sea Conference at Caracas, was requested to submit an interim report for the October issue. His report, written in late July, follows.

The Third United Nations Law of the Sea Conference convened on June 20 and is scheduled to continue until August 29, 1974. The Conference will reconvene its second session in Geneva, Switzerland in the Spring of 1975. When the Conference began John R. Stevenson, the chief U.S. Negotiator, recognized that the nations represented at the Conference faced tough political choices but he hoped that the dialogue would at least "avoid escalating conflict." He also hoped that a draft treaty would emerge leading to the resolution of problems such as those pertaining to territorial limits and zones of control of resources on the continental shelf beyond those limits, an international authority to deal with control of deep seabeds, marine pollution control and scientific research. His hoped for "constitution for the oceans which comprise 70% of the world's surface area" had not been reached up to the time of this interim report.

At the beginning of the Conference, the United States called for: extension of territorial sovereignty or jurisdiction to twelve miles from the traditional three miles, provided there are international guarantees for the unimpeded transit through and over territorial straits; establishment

of a broad area of coastal resources control beyond territorial limits, on the condition that control of resources not be equated with extension of sovereignty; and acceptance of the principle of "full utilization." Under this principle coastal nations would have to be able to fully exploit the resources in their economic zone, or other States could not encroach upon it. The U.S. also called for establishment of an international authority to deal with seabeds beyond continental shelves, basically a licensing organization on a "first come, first served" basis.

During the course of the Conference the U.S. restated its position and espoused the 200 mile economic resource zone for uses of the water column, seabed and subsoil. This was done to clarify the proposal for a coastal seabed economic authority to more specifically indicate the rights of coastal states regarding the resources of the zone. This move was made notwithstanding the fact that the American tuna fishermen characterized it as the new American "paternal sea proposal." This U.S. policy suggests a *fait accompli* for the economic resource zone and a recognition of its inevitability.

At the time of this writing the Conference has not concluded its first session but in all probability no treaty will be forthcoming on any of the numerous issues until the second session reconvenes next year in Geneva. The extent of disagreement and lack of consensus is reflected in the unsuccessful attempt of President Amerisinghe of Sri Lanka to elicit agreement to set out a final report at the conclusion of the session showing major trends with regard to the basic issues before the Conference. It was hoped that this would constitute a point of departure for the next session's agenda in Geneva. In that connection he made the following statement: "As we approach the end of the sixth week of the Conference it is necessary for us to take stock of the present stage of our work in order to determine how the remaining weeks are to be used and what we should seek to achieve before the session in Caracas concludes. It is too much to expect, given the number of issues on which there are still various degrees of divergencies of opinion and position, that we will be able to conclude a treaty or convention at this session. We must, therefore, consider what alternative course of action should be adopted." Further on he said, "I would suggest that we seek to achieve at this session some measure of agreement on the basic issues. A statement of agreement on these key, or basic issues might constitute the final document of this session. This statement of agreement must not be confused with a declaration of principles. The chairmen of the three main committees would know what these basic issues are on which there is an urgent need to

reach agreement. Ideally this agreement should take the form of acceptance of certain definite texts. If for drafting or other reasons such agreement is not possible, at least the agreement should be stated in as precise terms as possible and to the extent that it is feasible and something approximating to treaty language."

This proposal stirred a certain amount of debate. The United States and some developing countries were strongly opposed to adoption of such a statement of agreement on two grounds: 1) that it would perform the function of a document similar to a declaration of principles of the General Assembly whereby it would be quoted over and over again as the basis for agreement in any future session. 2) There was some fear that a declaration of statements on issues would subsequently be claimed to be principles that had achieved wide agreement and therefore evidence of customary international law. Some of the Latin American countries were very much in favor of the statement of agreement, and there was some feeling that there was a need for Venezuela to come out of this Conference with some kind of a document. Discussions on this point were protracted. Subsequently, President Amersinghe, in essence, announced in the General Assembly that he would not press for a statement of agreement before the end of this session. Just what the final result will be is uncertain although, as he said, "it is clear that there will be no draft of issues." It seems that what could come out of this session of the Conference could be a report similar to the Seabeds Committee Geneva 1973 Report in setting forth the alternate articles agreed upon.

Agreement on Procedural Issues

The first week of the Conference started out with rather high hopes, particularly in view of the fact that one week had been set aside by the General Assembly for the debate of rules of procedure and exactly one week was utilized in adopting these. This was taken as an optimistic beginning.

Most of the rules were non-controversial, following the general pattern of the rules for the U.N. General Assembly. However, two areas proved to be highly sensitive and required a great deal of negotiation. The first area had to do with the voting. Here the problem centered upon the so-called "gentlemen's agreement" which had been endorsed by the General Assembly last fall. The "gentlemen's agreement" states:

1. Bearing in mind that the problems of ocean space are closely interrelated and need to be considered as a whole, and the desirability

of adopting a convention on the law of the sea which will secure the widest possible acceptance,

2. The Conference should make every effort to reach agreement on substantive matters by way of consensus and there should be no voting on such matters until all efforts at consensus have been exhausted.

The Conference decided to follow the gentlemen's agreement but was faced with two questions: 1) How to decide when all efforts at consensus had been exhausted, and 2) if that point was reached, how to vote on the substantive issue raised? After considerable negotiation a complicated formula was adopted reflecting the manner in which the Conference would decide whether all efforts at consensus had been exhausted. It was decided it would be necessary to vote on that question before reaching the substantive issue. For example, if the issue should be whether or not a twelve mile territorial sea should be adopted, before voting on that issue the Conference would first vote on whether efforts at reaching a consensus had been exhausted. When that procedural vote was called two things could happen: 1) the President, on his own motion or at the request of fifteen representatives, could call for what has been referred to as a "cooling off" period for ten days. That is, a period for further negotiations if it appears to him or to a number of delegations that efforts to reach a consensus had not been exhausted, or 2) the Conference as a whole by a simple majority, could vote for a cooling off period of a specified number of days. In either of these eventualities at the end of the cooling off period the procedural question would then come before the Conference as a whole. Again, two things could happen: 1) the Conference could decide for a further cooling off period if it saw some hope of reaching a consensus; or 2) if there was general feeling that consensus could not be reached then the procedural question, that is, whether or not all efforts had been exhausted would be put to a vote. If the vote carried, indicating that all efforts had been exhausted, then the Conference would have a two-day delay period for delegations to get instructions from home before proceeding to a vote on the substantive issue.

The question of substantive voting also was a matter of some debate. The United States and many other developed countries preferred a procedure whereby a vote on substance in the Conference would require a two-thirds vote of those countries participating. That is, assuming 150 participating, then it would require at least 100 votes to carry any given issue. The Asian, African and Latin blocs preferred a simple majority of those present and voting, assuming a quorum was present. This could be a

very low number. The compromise reached on matters of substance was that in order to carry a vote, a two-thirds affirmative vote of those present *and voting* would be required provided that this two-thirds vote also constituted a simple majority of the nations participating. In addition, two-thirds of those participating had to be present to constitute a quorum. Of course, on procedural issues, as in the General Assembly, a simple majority would be adequate. The question whether the issue was substantive or procedural would be decided by the President and his ruling would be subject to an appeal by the group as a whole. In the main committees a simple majority was all that was required to carry a vote.

Once the voting issue was decided the log-jam was broken, but then there arose a debate on credentials, stimulated by the People's Republic of China. The rule as drafted by the Secretariat indicated that the Credentials Committee would validate credentials of each nation at the initial session and these credentials would remain valid for each subsequent session, subject to challenge. The Chinese proposed that the rule be amended so that at each subsequent session of the Conference all credentials be reexamined. This was intended to open the door for the Viet Cong or the Cambodians (the Royal Cambodian Government) in the event either came into power. This was strongly opposed by the United States on the ground that the Chinese were injecting into the Conference a political issue which most appropriately should be decided by the United Nations General Assembly. There was debate on the issue, some fourteen or fifteen nations speaking in support of China. Nations from Latin America, Asia, and Africa showed solidarity on the issue. The United States asked for a bench conference hoping to avoid a vote on the issue. The vote was avoided by a compromise formula to the effect that in subsequent sessions of the Conference, credentials could be reexamined *if* a majority of the nations present and voting approved. Having gotten over this hurdle, all other procedural rules were adopted very quickly.

Opening Session

The next two weeks were spent in general debate. The Chairman ruled this in order in view of the fact that so many nations were new and had not had a chance to state their positions. He requested that the statements be limited to statements of position by new countries, or statements of new positions by past participants. This was not followed and statements were made by approximately one hundred and fifteen nations. There were no surprises and no noticeable major shifts in the general statements except

for the Soviets who, in the interim between Geneva and Caracas, had agreed to adopt a two-hundred mile economic zone, provided that there was protection for navigation in straits, for distant water fisheries and for scientific research. Otherwise, the statements were as expected; the trends were the same as in Geneva, that is, toward greater coastal state competence in all areas — fishing, minerals, oil and gas, scientific research, pollution control, and the like. Some statements were limited to very specialized issues. For example, Indonesia addressed itself primarily to the question of archipelagos; the Greeks and Turks to island regimes.

At this point, the Conference had exhausted approximately three weeks and it was then decided it was time to go into committees. The committee structure, Committees I, II, and III followed the same general committee structure adopted by the Seabeds Committee at Geneva in Summer 1973. The issues to be considered were based on the list of issues before the Seabeds Committee, and in general were substantially along the same lines. The one major new issue was compulsory dispute settlement, and it was decided that it would be dealt with in each of the main committees, as appropriate to the discussions in the committee in question.

The three committees then moved into a period of organization and general debate. Some took general debate first and organization second; others went in another direction. General debate, in the committees, took from two days to a week until each of the delegations wishing to intervene had exhaustively restated the position set forth in Summer 1973, or recorded its views for the first time.

The organization of the committees became somewhat difficult and time consuming, but eventually the organization wound up roughly as follows:

Committee I structured itself along the same lines as Subcommittee I did in Geneva last summer. It was decided that Committee I would have a formal group of the whole for the presentation of formal positions and papers, plus an informal working group of the whole, for debate and work. Chairman Paul Engo chaired the formal sessions of Committee I on the seabeds, while Christopher Pinto of Sri Lanka chaired the informal working sessions. Pinto decided, and it was agreed upon by the delegates, that Committee I would take the work done in Geneva last summer and go through a third reading. This having been accomplished, all alternatives were referred to a small drafting group to try to further narrow the differences so that on each given issue there would be hope-

fully, no more than three or four alternatives reflecting major differences between the countries.

Committee I is, at the time of writing, moving into another period of general debate. The debate is on three basic issues: 1) Who shall exploit the deep seabeds? 2) The second issue concerns rules and regulations. The United States feels it very important at this stage to have the Committee discuss the rules and regulations to apply to the deep seabed and has tabled a draft paper. 3) The third subject to be discussed relates to economic implications which is a euphemism for price and production controls. In this manner the committee hopes to work from top to bottom and then reverse the process. General debate, submission of articles, reference of articles to drafting team, drafting team to informal working group for more debate, informal working group to full committee for adoption. Hopefully by the end of the summer there will be distinct sets of alternatives on each of the major issues.

Committee II proceeded slightly differently. This was due primarily to: 1) a new Chairman, Andrés Aguilar of Venezuela; and 2) the experiences of Committee II in Geneva last year. Aguilar decided to begin the debate, after the general statements had been made, by laying before the committee on each issue a working paper which he and the Secretariat would prepare listing what he called were the "main trends." In essence, this was an attempt to draft alternative articles for each area. He announced that he would receive additions or amendments to his papers from those delegations who felt that their positions were not fairly represented.

Position papers were submitted, and then the Chairman used these papers, to revise his draft. When submitting papers to the Secretariat each delegation was allowed fifteen minutes to state and explain its position. The Chairman obtained a ruling from the Committee as a whole that there would be two revisions on each working document, after which all further debate would be cut off. This is, of course, an innovative procedure. It meant that the Committee would receive its first document, debate it, introduce amendments, propose alternatives (they would be considered in the first revision) and the first revision went back to the Committee. The process is then repeated; the second revision is issued and the procedure is at an end. The procedure also called for proceeding through the list of issues one at a time.

Committee III was the breeding ground for the major impasse at the Conference particularly with regard to scientific research. Committee

III is dealing again with marine pollution and scientific research. In both areas the working groups ran into procedural problems. Initially, it was considered desirable to follow the same format as in Geneva, that is, to have an informal working group on marine scientific research and a similar working group on marine pollution chaired by persons other than the Chairman. This degenerated into a conflict between geographical areas over chairmanships. A compromise was reached on the proposal of Canada calling for one working group of the whole, as in the other committees, which would meet on alternate days rather than having two working groups. The Committee would meet one day on scientific research, one day on pollution, etc., so that each topic would be considered for two days each week, with one day being set aside for a formal meeting of Committee III. The Committee—divided into groups to deal with marine pollution and scientific research and transfer of technology—made an attempt to pick up the work where it had been left off at Geneva, that is, to accept the documents that had been prepared there, narrowing the issues. This met opposition from many countries, in particular India, which argued that there were too many people that had not been in Geneva and therefore did not understand the issues. Thus, a return to the beginning was indicated. Accordingly, as in Committee I and Committee II, Committee III received the documents from Geneva only as advisory.

The above has been a slow and painful process. There have been disagreements over agendas, but these have been resolved. However, another problem arose in the working group dealing with marine science and technology transfer. The Chairman attempted to use a similar format to Subcommittee I; that is, to offer the documents from Geneva in the form of a comparative table as a working document. Delegations which had new proposals or amendments were to introduce and explain them, and other delegations were asked not to debate the merits. The documents submitted and the basic comparative table were next to be referred to a small drafting group. Unfortunately, heavy opposition to the small drafting group arose on the part of several of the developing nations, mostly Spanish speaking, who objected strenuously to the fact that they could not possibly work in a small drafting or consultation group that was conducted only in English. This has been the pattern of United Nations conferences in the past, and was the pattern followed in Geneva, but apparently it is unacceptable at Caracas. With this hurdle to overcome the Chairman at the time of writing needs a consensus to move ahead. Failing to obtain consensus, the only thing that can be done is to move through the list of issues and compile alternatives until the nine-point list is

exhausted. Eventually, the process will have to be repeated with the Committee acting as a working group of the whole. This appears to be an impossible task. For example, in the item dealing with the right to conduct scientific research, Geneva produced five alternatives. Now there are eight alternatives before the Committee and there is no mechanism that will quickly and expeditiously narrow these alternatives down to a manageable number.

Substantive Accomplishments To Date (End of July 1974)

1. Voting Blocs

On matters of substance little has been accomplished in the first six weeks. There are, however, discernible trends and some general comments can be made at this point: 1) There may be more solidarity between the African, Asian and Latin groups than at Geneva, suggesting that the Group of 77 could be very slowly and carefully ironing out some of its differences. This is particularly evident in Subcommittee I and in marine scientific research where the Group has taken a position on the deep seabeds. With this growing solidarity there is a hardening and a toughening of the position of the developing countries. So far, attempts at accommodation with the developed countries have achieved little success.

2. Exclusive Economic Zone

The trend toward the economic zone, of course, is more than a trend. The Russians have now accepted the basic concept, the United Kingdom changed its position — it is now willing to accept a 200-mile economic zone — and the United States although it had announced last summer, in general terms, that it was willing to accept an economic zone, now agrees to the 200 mile limit. Thus, there is uniformity on that question, but the polarization comes on the content of the economic zone. The United States is willing to accept the economic zone only if the coastal states recognize that they have certain duties and obligations to perform. The coastal states, on the other hand, see the economic zone as a zone of exclusive jurisdiction with favors to be handed out to non-coastal states as they choose and see fit from time to time. The general trend among the developing countries, then, is for a 200 mile economic zone with exclusive rights to explore and exploit the living and non-living resources of that zone with strong control powers to regulate and enforce pollution measures; control and authorization over scientific research; control over non-

innocent passage to the superjacent waters, etc. The United States views this kind of a package as being not very far from a claim to a 200-mile territorial sea. Its views are shared by others and therefore the insistence on certain exceptions to the economic zone, the most notable of which is access to those species of fish within the economic zone that are not fully utilized by the coastal state. Essentially the U.S. is saying "You can have your economic zone, but within the economic zone we want access to the underutilized species, and there must be adequate conservation and management measures." Likewise, the U.S. is not insisting upon access to the zone for marine scientific research purposes provided certain obligations are met and international regulations for the control of pollution in the economic resource zone are observed. This kind of package is seen by the developing countries, as China has put it, as an empty gesture on the basis that after verbally agreeing to an economic resource zone, the exceptions thereto destroy the basic concept of the zone. Herein lies the polarization.

3. Continental Shelf and Deep Ocean Areas

On the continental shelf, many nations have agreed or insist that the continental shelf should exist as a legal concept beyond the 200-mile limit if it should so extend. The United States has agreed to this position, so have the Soviets, the British and the Latin Americans, but many of the Africans refuse to accept this concept because they have narrow shelves and they see such an extension beyond the 200-mile limit as reducing what is left of the common heritage of mankind. In general, the positions on this point are strongly national. The "common heritage" has become an empty concept, although there is another trend toward a *very* strong international authority in the seabeds area. As a concession, perhaps for the grant to the coastal states of the economic zone, those countries which do not have a large economic zone are insisting on tighter controls in the international area. These controls range the full spectrum: resource exploration and exploitation, both in the seabeds and the vertical column; control of scientific research, pollution, fisheries, et al. This is a worry to the United States which finds this kind of strong international authority and regime unacceptable.

4. Marine Pollution and Freedom of Scientific Research

In the areas of pollution and scientific research the same pattern is seen. Evidence the latest position recently tabled by Kenya, purportedly

developed by the Group of 77 on scientific research, which would require not only the consent of the coastal state in the economic resource zone but consent of the international authority in the international area as well, thereby putting science under a consent regime. Furthermore, the Mexicans, supported by the Spaniards, are suggesting draft articles for the control of scientific research and the consent of coastal states in oceanographic research done by satellites. This is unworkable, thus totally unacceptable to the United States and others.

5. Fisheries

With regard to fisheries the demand of coastal states is for absolute control over fisheries within their economic zone, with concessions to be worked out with distant water fishermen at the option of the coastal state. In the matter of anadromous species most nations are indifferent. The Japanese, however, are insisting that this is such a narrow issue affecting so few countries that the problem should be taken out of the global content and reserved for bilateral and limited multilateral agreements.

6. Technology Transfer

In this area there are strong demands on the part of developing countries for an effective means of transfer. However, no adequate definition of the term "technology transfer" has been suggested. Again, there is a dichotomy of views. While the United States has constantly referred to the issue and affirmed its importance, its preference is to elaborate the transfer of marine science technology. It is apparent, however, that most of the countries are talking about the transfer of exploitive or commercial technology with, among other things, open access to patents. So the positions appear solid without an identifiable middle ground.

Summary and Specific Committee Progress To Date

Given the above polarization it would appear simple to negotiate two sets of alternatives inasmuch as the lines seem to be fairly clearly drawn. However, the problem is that while in general the lines are clearly delineated the specifics are far from agreed upon. For example, in scientific research, while the Soviet Union and the United States seem to agree upon the general principle of freedom of scientific research there is basic disagreement over whether the continental shelf should be free for research or not. Many countries say no; the United States says yes. Another exam-

ple—within the African countries there is wide disagreement on the specifics as to how the fisheries management zone should be conducted. And, there are also disagreements between coastal states and island and archipelago states. The archipelago issue is a prominent one and an attempt is being made to accommodate to the needs of the archipelago states without taking the extreme position that, in all cases, lines can be drawn around the outermost islands of the archipelago and that everything inside the outer line is internal water. But again, there is no firm progress in this area and much work remains to be done.

Progress, then, has been slow. The first committee has achieved a full third reading, but most of the issues involved in that reading are not controversial. Committee II is working slowly through its list of issues, having covered the questions of territorial seas, continental shelf and economic resource zone. Committee III, in marine pollution, is mired in the issues of standards and of enforcement. Some countries, for example, insist that the agenda should be set up to consider enforcement of marine pollution within the outside national jurisdiction. The United States opposes this on the grounds there is no such thing as a marine pollution zone subject to the coastal state jurisdiction. The U.S. does not approach enforcement by zones and therefore prefers that enforcement be considered under flag state enforcement, port state enforcement and coastal state enforcement. Now, the U.S. articles do not provide for coastal state enforcement but the U.S. feels that its approach gives everyone a chance to discuss and present articles reflecting his particular point of view. The procedural issue is, at the time of writing, unresolved.

In marine scientific research, out of a list of nine topics to be discussed the Committee has made some progress but seven more general topics remain for discussion. In the area of marine science, the situation is precarious. The other Committees are in pretty much the same position. It appears that Committees I and II will show the greater amount of progress this summer and Committee III, for many reasons, will be left behind. There is strong feeling in Committee III that progress is not desirable until something more substantive is accomplished on the basic question of the limits and the content of jurisdiction over an economic zone in Committee II.

WATER TRANSPORT AGREEMENT

At the Fifth Annual Conference of LAFTA Foreign Ministers it was agreed that preference would be given to the national ships of LAFTA

countries, under equal terms and treatment, in the transport of a substantial share of the cargoes of intraregional trade. Thus the need for preferential treatment of Latin American shipping lines in intraregional trade, a long espoused protective practice designed to promote integration of sea and river transport and to foster the development of national merchant marines in Latin America, has been met and served. The initial system of cargo preference was first proposed in 1962 and approved in final form and substance in September 1966 by the representatives of the nine member countries. The Agreement comes into effect sixty days following the ratification of five signatories, this requirement having been met with Colombia being the fifth signatory on 29 March 1974. Prior ratifying countries are Mexico (5 May 1967), Chile (22 October 1968), Ecuador (31 July 1969) and Paraguay (5 November 1970). In addition, Bolivia and Venezuela have officially declared their intention to join the agreement upon its entry into force.

The agreement "insures to the national ships of the LAFTA countries, under equal terms and treatment, preference in the transport of a substantial share of the cargoes of intraregional trade." A proposed set of complementary draft rules governing the fair distribution of traffic between the merchant marines of the various LAFTA countries is now under review and should be approved shortly by a special conference. In principle, the convention covers general and refrigerated cargo, excluding trade with third countries and the transport of bulk oil and other bulk products. The importance of this agreement is best reflected in the fact that 99% of the intra-LAFTA traffic depends upon maritime transport. The cost of the maritime freight carried in reciprocal trade amounts to \$150 million a year, representing 13% of total regional exports, and exceeds the value of any single product traded within the area. At the present time approximately a third of intra-zonal maritime cargo is transported by third flag carriers. Furthermore, the demand for ocean freight will undoubtedly grow in the future as trade within the region and with the rest of the world increases proportionately.

DRAFT ARTICLES ON CARRIAGE OF LIVE ANIMALS BY SEA

The United Nations Commission for International Trade Law (UNCITRAL) Working Group on international legislation on shipping, at its sixth session in Geneva, Switzerland, from 4-22 February 1974, proposed a revision of the 1924 convention (the Hague Rules) on carriage of goods by sea and on the Brussels Protocol of 1968, both relating to

international bills of lading dealing with international carriage of live animals by sea.

At the session, a study prepared by UNIDROIT at the request of UNCITRAL on the carriage of live animals via various modes of transport, including carriage of goods by sea, was presented and discussed with a view to modifying former conventions on the subject. The study analyzes all aspects of the problem and reaches the following general conclusion: that a future convention should include live animals in its definition of "goods." Three alternative suggestions dealing with the framework of the future convention to which these goods would be included and recognizing the inherent risks were proposed. The first allows the carrier to stipulate the exemption and limitation clause as he chooses while at the same time applying the convention to the transport operations in question. The second provides for a reversal of the burden of proof with regard to the new general system of liability upon which the future convention will be based, to the benefit of the carrier by virtue of the special risks inherent in this kind of transport. The third alternative would involve including these transports in the future convention as the new general system of liability proposed renders the carrier liable for damage while the goods are in his custody "unless the carrier provides that he, his servants and agents took all measures they could reasonably be required to avoid the occurrence and its consequences." A related proposal would involve the International Maritime Consultative Organization (IMCO) preparing a manual on the transport of live animals. As has been done previously for travel by air (see the Live Animals Manual of IATA, International Air Transport Association).

The Working Group further decided to hold its next session in Geneva from 30 September to 11 October 1974. There it will further examine the contents of the contract for the carriage of goods by sea, validity and effects of letters of guarantee and the legal effects of the bill of lading in protecting the purchaser in good faith to the document, the position with respect to the carrier or the person entitled to take delivery of the goods. Subsequent sessions will probably be held in New York in either January or February 1975.

CUBAN FISHING INDUSTRY

The Havana press continues to report rapid expansion of the Cuban fishing industry. From 1958 to 1974, net tons landed have increased from

21.9 thousand metric tons to 78.6 thousand tons. This amounts to an annual increase of approximately 7% and a substantial increase in foreign exchange and income for Cuba, the world's second largest exporter of lobsters after Australia. However, the greatest rate of increase has been reported in the tuna catch.

At least some of the increase is attributable to a cooperative plan between the fishermen and the Government as evidenced in substantial capital improvement investment by government in fishing boats and gear. The State guarantees to purchase the total catch at stable prices, and guarantees a floor salary to the fishermen as well. This joint, private fishermen-Government cooperation, stems from nationalization of the fishing industry in June, 1962. Since that date the tuna fleet has increased from five used boats purchased abroad to 3,000 modern boats catching a hundred thousand tons a year. It is expected that in 1975 a total of 600 tuna, shrimp and lobster boats will be added to the fishing fleet.

INTERNATIONAL WHALING COMMISSION

The 26th annual meeting of the International Whaling Commission held in London, closed June 30, 1974 with fifteen member nations responding to world opinion and shifting emphasis from concern over their respective whaling industries to survival of the whales. Consensus fell short of a total moratorium on whale exploitation. However, a resolution calling for selected moratoriums bodes well for the future of selected species which will no longer be hunted to the point of virtual extinction. In a shift from constitutive to sanctioned authority, the Commission now has the power under the resolution to impose a moratorium of indefinite duration on certain species before their numbers fall so low that it is no longer feasible to hunt them. This denotes a shift in the imposition of moratoriums, utilizing a standard of commercial, not biological extinction.

The first such selective moratorium to take effect in 1975 will probably cover the fin whale. Present estimates are that there are no more than 100,000 in existence, the species having suffered a 75% mortality rate. The fin is the largest of the four species still hunted commercially, mostly by the Russians and Japanese. These two nations account for 85% of the world's total annual whale catch. They were also the only countries voting against the selective moratorium, but will accept the moratorium imposed by the Whaling Commission. Objections may be lodged to the Commission's ruling within 90 days after their passage. The Japanese and Russians objected to the annual quotas set last year on the sperm and minke

whales and refused to observe a phasing out of fin whaling in the Antarctic by 1976. However, enforced sources at the recent Commission meeting indicate a shift in Soviet and Japanese policy to accede to the conservation measures adopted by the Commission.

ANCHOVETTA

Now that the *El Niño* condition is a thing of the past and the once elusive anchovy is returning to Peruvian coastal waters, the military *Junta* in Peru is searching for buyers for its protein rich fish meal made from the tiny valuable fish. The United States, West Germany and the Netherlands, previously the biggest customers for Peruvian fish meal, have all switched to alternative sources—notably soybean meal now in ample supply—since the diminution of the anchovy fisheries some two years ago. The warm water associated with the disaster brought a cold chill to the Peruvian economy to the tune of \$400 million, or 40% of its foreign exchange earnings vanishing with the anchovetta. Still unsure of the extent of the recovery, fishing has been sharply curtailed and production of fish meal has been set at 700,000 tons this year, contrasted with 2,000,000 tons before the ecological disaster struck in 1972. It still has not been established to what degree nature was responsible and to what extent over-fishing exacerbated the condition. However, one thing is true, the fish are back and as abundant as ever. It takes 4.5 tons of fish to produce one ton of fish meal compared with the 5 to 1 ratio before the disaster. This will undoubtedly please the fish processors who remove the fish oil from the anchovy and then cook, dry and grind it up into meal with a protein content volume of 60%.

Fish meal is used largely as a feed supplement for poultry and livestock and the oil has a multitude of food and industrial uses. When Peru, then the world's major fishing nation based largely on a single fishery, stopped fish meal and oil, the price of its chief competitor, soybeans, quadrupled shortly thereafter. Soaring soybean prices contributed sharply to the overall rise in consumer food costs. However, in the interim the rise in soybean prices from \$3 to as much as \$12.90 for a bushel of 60 lbs. encouraged farmers to expand their production. This proved to be an asset for, besides the fact that they can be grown on poor soil, they enrich the latter thus requiring less fertilizer. Expanded output brought prices down to \$5.75 a bushel and soybean meal, 44% protein compared with 60% for fish meal, from a high of \$400 a ton to the actual price of \$112 a ton.

Peru's military rulers who control fish meal exports are still asking \$420 to \$450 a ton. An International Trade Mission is expected to travel to Europe and other areas seeking to increase export levels. Lukewarm success has been met thus far from Soviet bloc countries, China, Cuba and other nations without the facilities to process soy beans into meal and oil. These countries are willing to pay inflated prices for fish meal and informed sources say this is partially attributable to an overall exchange for trade concessions with the eastern bloc nations.

PORT CONGESTION IN BRAZIL

Increased volume of freight from foreign ports, principally raw materials, is overloading warehouse facilities in the Brazilian ports of Santos and Rio de Janeiro. This has resulted in what port personnel call "inevitable importation of inflation," for ship handlers are unable to raise their fees to the ships awaiting to unload, and, inevitably, these higher costs have to be absorbed by the importers. Brazilian shipping companies are presently engaged in a survey of port problems, believed to be due, mainly, to: world demand for industrial raw materials, expansion of international trade, exemption of import taxes, lack of port equipment, transportation difficulties with the cargo deposited, ships with inadequate unloading facilities which delay port operations, and fines for demurrage. Local industries are requesting immediate action to alleviate the problem, since this is causing delays in processing imported raw materials required for the production of export products.

DEEP SUBMERSIBLES EXPLORATION

In the most ambitious exploration ever to be undertaken by deep submersibles, three of the world's deepest diving craft will make some sixty penetrations this summer into the "navel of the world," the volcanic rift valley beneath the mid-Atlantic ocean. The dives will be evenly divided between the American craft *Alvin* out of Woods Hole Oceanographic Institution and two French submersibles, the bathyscophe *Archimede* and the diving saucer *Cyana*. Each is tended by her own specialized mother ship. In this, the penultimate phase of a three-year project, the three vessels will seek to enlarge knowledge of the mid-ocean eruptions that create new sea floors, thereby generating earthquakes and metallic deposits as the eastern and western halves of the Atlantic sea floor are rended apart.

The concept of sea floor spreading from the rift along its centerline ridge is part of a new view of the earth's surface as formed of gigantic plates that for reasons, not yet fully understood, are moving with respect to one another. Because of intensive mapping of the potential dive area, some 200 miles southwest of the Azores, conducted during the previous two years in preparation for the dives, the region is better known than any other sector of the deep ocean sea floor. Sophisticated photographic and sonar systems, still classified top secret by the respective military components, have been used by the American, British and French vessels. In a series of seven preliminary dives last summer, the French *Archimede* brought back a preview of what is to be expected in the steep walled valley. Penetrating the black depths of this region close to 10,000 feet below the surface is replete with hazards. The water pressure is sufficient to crush any ordinary submarine. The only lighting that can be provided must be carried by the individual craft's lamps and visibility is still limited to a few dozen yards.

The American vessel, *Alvin*, operated by Woods Hole for the office of Naval Research is to make three series of dives from June 20 to August 11, tended by her mother vessel, a catamaran called *Lulu* that can lift her completely out of the water. The research vessel *Knorr*, also out of Woods Hole, will assist in the exploration. The *Alvin* will be equipped to sample warm water which may give evidence of geysering if found. Additionally, as part of the concerted attack on the mysteries of mid-ocean manufacture of new sea floor, the drilling ship *Glomar Challenger* is to attempt drilling a hole considerably deeper than any yet achieved into oceanic bedrock some twenty miles west of the diving area. Previous sinking of hundreds of holes in the floors of all the world's oceans never penetrated more than 265 feet below the sea floor. The goal of this project is to drill at least 3,300 feet below the seabed. The name for the diving project is FAMOUS, standing for French American Mid Ocean Undersea Study. American sponsors are the National Oceanic and Atmospheric Administration of the Commerce Department, the National Science Foundation and the U.S. Navy. The French sponsors are the National Center for the Exploitation of the Oceans, the Oceanological Center of Brittany and the French Navy. Claude Riffaud is the French project chief.

Forty-four plunges had been made through mid-August and have shown that some sectors of the ruggedly mountainous terrain 9,000 feet below the mid-Atlantic surface teem with fish and other organisms despite perpetual darkness and pressures of two tons per square inch. Sur-

prisingly, many corals were found despite the popular belief that all varieties are limited to shallow water. Also found in the dredge holes were starfish, sea stars, sea anemones and shrimp. Sponges were also found in great abundance. Many unusual species of fish, some with bioluminescence, were also discovered.

OIL EXPLORATION PROJECT

Oil companies are beginning exploration for oil in some of the most heavily populated fishing grounds in the world off New England and New York, spending an estimated three million dollars to search for underwater deposits. A consortium of forty-eight oil companies has begun a project involving seismic readings on about 15,000 square miles of ocean bottom off Long Island and Cape Cod this summer. This is equal to as much research as has been done in the last eight years combined. The Northeast exploration centers on Georges Bank, one of the U.S.'s most productive fishing grounds. A research vessel operated by Digicon Inc. of Houston has already begun seismic studies of underwater rock formations. To be joined later by another ship, they will cover a rectangle of ocean that begins 100 miles off the tip of Long Island and stretches 150 miles northeastward off the Massachusetts coast. Based on its own studies and those of the consortium, the U.S. Geological Survey estimates that the offshore Atlantic holds 10 to 20 billion barrels of oil and 55 to 110 trillion cubic feet of gas. Total proven world oil reserves are now estimated at 600 billion barrels. The 190 foot research ships, *Gulf Seal* and *Atlantic Seal*, will tow 2½ mile long lines at a depth of 45 feet where measuring devices will bounce sound waves off the ocean bottom and use their echoes to determine rock structures. The ships displaying lights and buoys will work twenty-four hours a day. The researchers block off their work in grids and measure their production in miles of line. In the north Atlantic the vessels will cover 8,300 miles of line on the continental shelf and 2,000 miles on the deeper continental slopes. Exploration of the continental rise is not anticipated in the near future.

This increased exploration for undersea oil is undertaken despite the risk of being made in "considerable ignorance and uncertainty" regarding the impact of oil spills on ocean life according to a recent study by the Ford Foundation Energy Police Project released July, 1974. Two marine biologists at the University of Virginia, Dr. Donald Boesch and Carl H. Hershner prepared the study and recommend great caution in making policy decisions involving oil in the marine environment. Later in the report Dr. Jerome H. Milgram, of the Department of Oceanering

at Massachusetts Institute of Technology, who designed one of the booms used for containing oil spills at sea, wrote that containment removal and cleaning up of spilled oil had received far less capital expenditure by government and business than other branch of engineering. He concluded that ocean engineering presently is a backward field. David Freeman, head of the energy policy project, stated that the report was not comforting and supported the view that the United States should concentrate on reducing demands for energy to cut the slippage of oil across the oceans or the drilling for oil offshore. He also stated that the United States ought to try to buy the time necessary to explore the full environmental impact of ocean oil drilling and increase tanker traffic. This study further corroborates the risks of offshore oil drilling originally mentioned in a report published April 18 by the White House Council on Environmental Quality. The report by the Council pointed out that the danger of oil spills reaching the shore from wells off Long Island was much greater than that from spills off New England, with the highest risks of all lying in the Gulf of Alaska. The report by the Environmental Quality Council recommended that offshore drilling not be done within thirty to fifty miles off New Jersey, Long Island or Cape Cod. Informed sources at the Department of Interior announced that offshore oil drilling in the Atlantic would be delayed not only by long environmental impact studies but also by a dispute between Atlantic coastal states and the federal government over ownership of lands beyond the three mile limit. This dispute is now before a special Supreme Court appointed master, and a ruling is expected some time in 1975.

ENERGY IN THE OCEANS

Ground work is now being laid for realistic testing of the hypothesis that substantial amounts of energy can be derived at low cost and pollution free from temperature differences within the oceans' temperature gradient differential. Two conceptual designs for oceanic power plants of this type are in preparation and the National Science Foundation, which is financing these studies, is offering \$1.8 million for further development by private industry. It has been calculated that the heat being carried by the Gulf Stream through the Florida Straits between Miami and the Bahamas could be harnessed to produce all the electricity now used by the United States. The proposed plans would use warm surfact water to vaporize a "working fluid" such as propane or ammonia, that vaporizes at a temperature as low as that of tropical surface water. The vapor would drive power plant turbines and then be condensed back

into a fluid by frigid water brought up from great depth. The warm water and cold water would flow through the system in great volume whereas a much smaller amount of working fluid would be constantly recycled throughout the turbines. Of the conceptual designs advanced, the one being prepared by Dr. William E. Heronemus and his colleagues at the University of Massachusetts at Amherst, is the most detailed. The plant will be moored some twenty-five miles off Miami, drawing up cold water through a conduit attached to its tether line. Warm water will be swept through the system by the natural flow of the Gulf Stream. The working fluid, at least initially, will be propane and the generative power will be transmitted to the Miami electrical system by submarine cable.

A conference reflecting the current energy crisis and the need to explore alternative sources of energy will be held in Washington, D.C. in September 1974, hosted jointly by the Marine Technology Society with the cooperation of the National Science Foundation, the National Sea Grant Program of the National Oceanic and Atmospheric Administration and the University of Miami School of Engineering and Environmental Design. Such topics as the ocean as an energy resource, ocean current systems, ocean wave systems, economics of unconventional energy sources, ocean wind systems, ocean thermal systems, storage and transmission problems and alternative systems design analysis will be discussed at the five day conference.

PUERTO RICAN SHIPPING FLEET

Puerto Rico's Legislature has passed a bill creating a government-owned merchant fleet to be operated through a public corporation. Objective of the legislation is to hold down ocean rates and to foster the island's development program. The fleet is expected to operate mainly between Puerto Rico and the East coast of the United States. A side agreement between the Government and three container ship companies provides for the acquisition of a dozen container ships and 12,000 trailer vans which will serve as the initial operating entities for the new fleet.

GULF OF VENEZUELA CONTROVERSY

The dispute between Colombia and Venezuela regarding the Gulf of Venezuela remains unresolved in spite of repeated high level meetings between officials of the two countries.