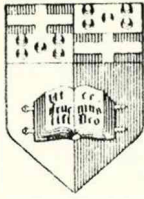
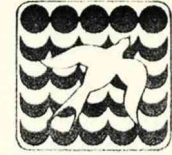


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Pacem in Maribus

It has been obvious for some time that manganese nodule deposits are not restricted to the international seabed zone (the Area), but have been discovered and are likely to be discovered in the Economic Zones of some coastal States. Thus, part of the rich deposits of the Clarion-Clipperton zone will fall into the EEZ of Mexico; France may claim deposits in Polynesian waters, and the USA in the EEZ of Hawaii.

Now it appears that an enormously important deposit has been discovered in the EEZ of Chile, off San Fernandez Island. It appears to be more important than the deposits in the international seabed area.

What this will do to the International Seabed Authority is obvious. Mining, when it takes place, will take place in areas under national jurisdiction, on a bilateral basis. It will not take place under the jurisdiction of the Authority. A representative of the German mining industry, Mr. Udo Boin recently said (Protokoll des Meeressymposium Kiel 1980):

...The possibilities of bilateral collaboration with coastal States are becoming increasingly important in view of the continuing legal uncertainties with regard to the the High Seas...

The 200-mile EEZ opens the possibility of bilateral cooperation in the exploration and exploitation of all mineral resources in offshore areas...

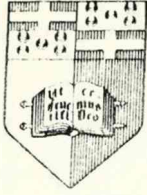
As far as manganese nodules are concerned, the 200 mile limit is somewhat narrow; only in insignificant exceptional cases are deep-sea nodules likely to be found within the 200-mile EEZ.

An extension of the 200-mile limit, no matter how problematic it might be under other aspects, would transfer large portions of manganese nodule resources from the realm of legal uncertainties into areas of individual State jurisdiction.

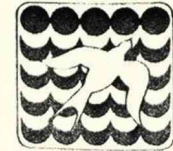
In view of the vague provisions of the ICNT, we cannot help noting that, as far as deep-sea mining is concerned, the farther the EEZ is extended into the deep oceans, the better it will be.

How can we cope with this situation? The following strategy seems to me to be mandatory:

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Pacem in Maribus

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If the functions of the Authority are restricted to nodule mining, then not only the Enterprise, but the whole Authority will be still-born. The problems of voting in the Council, of financial arrangements, of production control, will then be more or less irrelevant: Which may contribute to making agreement easier!

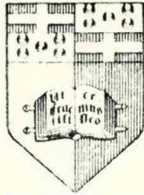
The moment has come to have a second look at the other functions of the Seabed Authority. These exist in the Draft Convention, but they are far less clearly defined and, in some cases, lack an institutional infrastructure in the Authority. These other functions include scientific research, the transfer of technology, the coordination between seabed mining and other uses of ocean space; environmental protection; and ensuring the peaceful uses of the Area. It is now obligatory to make sure that the Authority can effectively exercise these other functions. The PREPCOM should be encouraged to look into that.

With regard to scientific research and transfer of technology, I still think that the establishment of a joint venture on research and development, at the earliest possible date (1982), between the Authority and whatever companies, consortia and States wanted to participate, would be the most efficient way to promote it. Both developed (especially the smaller ones) and developing countries would benefit from such an undertaking. Countries like Mexico and Chile are likely to be among the first to want to participate in such a joint venture at an early date.

With regard to ensuring peaceful uses of the Area, I just received an interesting Italian book on weapons of mass destruction and the Seabed, of which I should like to quote a few passages:

...The constitution of the International Seabed Authority, on the one hand, poses the problem of seeing whether this new international organization will have verifying powers in accordance with art.III, paragraph 5, of the Seabed Treaty, and, on the other hand, whether the verification provided for in the same art. III, will also apply to its activities. As far as the first problem is concerned, it is certainly desirable that the International Seabed Authority, which is supposed to be impartial, assume verifying powers according to the Seabed Treaty. This new power could come either through an amendment to the 1971 Seabed Treaty as its present formulation does not permit it, or through the recognition of the international Seabed Authority as a subsidiary organ of the General Assembly of the United Nations, in accordance with art.III, paragraph 4, of the

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Seabed Treaty. As for the second problem, the answer could be found by extending the application ratione materiae of the Treaty to the activities of the International Seabed Authority, even though it appears rather unlikely that this body will ever carry out activities prohibited by the Seabed Treaty.

Military activities conducted in the seas can produce pollution. Theoretically at least, it is not excluded that nuclear weapons or weapons of mass destruction, or other military installations considered in the Seabed Treaty, could cause accidents resulting in the contamination of the marine environment. In this case, there would be the problem of seeing whether the mechanism for the prevention, control and intervention foreseen by international law, particularly by the new international law of the sea (art. 199 and 221 of the ICNT/REV 1) affects, and to what extent, the provisions of the Seabed Treaty, especially those concerning the verification powers of the States Parties. In other words, in the case of an imminent danger of pollution caused by a weapon or nuclear installation placed on the seabed, will the States threatened be able, as foreseen in art. 199 and 221 of the ICNT/REV 1, to take the necessary measures for coming to grips with the danger, or will they have to follow the long and complicated procedure foreseen in Art. III of the Seabed Treaty? The answer certainly lies in recognizing the pre-eminence of the provisions of the ICNT/REV 1. The purpose of the Seabed Treaty is to prohibit nuclear weapons and weapons of mass destruction on the seabed and not to provide a juridical regulation of the complex subject of pollution caused by radioactive substance. In fact, the Treaty does not refer to this problem at all. The subject is, instead, regulated by the provisions of the ICNT/REV 1 which are general and can also apply to the problem of military pollution.

(Luigi Migliorino, Fondi marini e Armi di Distruzione di Massa.
Milano: Giuffr , 1980.)

A discussion of the functions of monitoring, surveillance, and enforcement of the Authority would be timely in view of the decreasing importance of nodule mining as the main function.

Typo

Ray

one cc rush

Jean

and the traditional meaning behind the term territorial sea. If territorial sea is preferred, it could be used in two senses, the narrow traditional one, and the new one referring to an economic zone. The countries wanting to use the term "territorial sea" in a new way could divide the territorial sea into two parts, one of traditional content, and the other with the features that would be agreed to about the adjacent zone, in this case more than a mere economic zone. Countries fighting for the term territorial sea are seeking to have an adjacent zone include more than economic rights. This is another reason to hold that the problem of names is a fundamental one as the names represent more extensive or narrow claims and rights.

The name could be converted into an issue by itself, if there is a trend to give a definite, but controversial name to the zone. In some meetings of the Seabed Committee the name has been an underlying issue. I remember the days when it was forbidden, by tacit agreement, to mention the territorial sea, or to talk about limits and so on. The Seabed Committee has slowly and gently destroyed many tabus. The time of tabus is over, and nothing now escapes critical examination and free discussion and negotiation.

I expect that the real issue concerning the economic zone will be its content and not its name. I believe that a majority of countries, including many developed countries, favor the recognition of an economic zone beyond the tra-

is lowered 27 feet. After leaving Pedro Miguel Locks, the ship crosses mile-wide Miraflores Lake, then enters Miraflores Locks where it is then lowered in two steps, ^{the} remaining 54 feet to the Pacific Ocean level.

The Panama Canal is too small to accommodate approximately 1,300 of the present ships afloat. Another 1,700 cannot pass through fully laden, particularly during dry ^{the} season (January-April) when the lake level is reduced through evaporation and lockages. Fresh water is the principal limiting factor of the present canal. At present, 14,000 ships can transit a year, and certain improvements could increase this capacity somewhat, but in any case, a maximum would definitely be reached by the end of this century.

Proposed sea-level canal routes

In 1964, the U.S. Corps of Engineers, the Atomic Energy Commission and the Panama Canal Company completed a preliminary study of 30 prospective routes for a sea-level canal constructed by nuclear means. President Johnson, in 1965, appointed the Atlantic-Pacific Interoceanic Canal Study Commission to study the situation and make final recommendations for the site of a new canal. The Commission devoted most of its five year 24 million dollar effort to evaluating nuclear routes. By the fall of 1969, after most of the data was gathered, the commission publicly announced that the techniques of nuclear excavation were not feasible. In 1970, they presented their completed report to President

and Colombia is more complete, the reserves of the region probably will be found to be much greater than presently indicated.

The refinery capacity is more widely distributed than are the production and reserves. The part of the United States and Mexico within the limits of Figure 7 refined 1,704 million barrels of oil during 1971, (more than the production), and Venezuela, Colombia, and Trinidad refined 735 million barrels (about half their production). The other half was shipped for refining in the United States, Curacao, Aruba, Virgin Islands, Bahama Islands, Puerto Rico, Cuba, Panama, Jamaica, Guatamala, Honduras, Nicaragua, Martinique, Costa Rica, Barbados, and the Leeward Islands. Nearly all of the countries in the region have refineries, even though crude oil must be imported for most of them. Perhaps these relationships indicate that the non-producing countries are less fearful of pollution than of missing an opportunity to industrialize.

Pollution

Most pollution by oil in the world oceans appears to be from numerous unspectacular causes. Most important are waste disposal, and washing of tanks at sea. Pollution from this source could be reduced 99 per cent by modern tankers using the load-on-top method. Next most important is loss of oil through collision or grounding of tankers, and ~~at~~ least, is direct loss through drilling operation. Both of these losses receive a disproportionate share of news coverage. Once the oil reaches the ocean surface, it is subject to drifting by winds and currents. Winds in the

Caribbean Sea are the steady trades that blow from the northeast or east (Figure 8) about 90 per cent of the time and with an average speed of about 25 kilometers per hour. Owing to earth rotation, this wind drives the surface water in the Caribbean Sea westerly and northwesterly (Figure 9) one to two kilometers per hour. Eddies exist in broad coastal indentations -- between Colombia and Nicaragua, between Honduras and the Yucatan Peninsula of Mexico, and between Jamaica and western Cuba. These are the chief likely sites of shore pollution by floating oil and tar, but most of these shore zones are only thinly inhabited.

Probably a small amount of the pollution escapes the Caribbean Sea and enters the Gulf of Mexico, where both the winds and the currents are variable in direction and slower than in the Caribbean Sea. Oil pollution from shipping, refining and drilling in the Gulf of Mexico can move either easterly or westerly depending upon the position of the source and the season. Some of it must end in lightly inhabited mangrove and deltaic swamps; however, these appear to be anomalously few complaints about polluted beaches in either the Caribbean Sea or the Gulf of Mexico. ✓

One might attempt to rationalize the apparent small pollution by considering that most of the tankers which arrive at the South American ports are modern ones using the load-on-top method, or ones from distant ports, whose tanks have been washed far from the Caribbean Sea. These ships leave the Caribbean ports with full tanks of crude oil; thus they need

islands of Vieques and Culebra, provided once the Virgin Islands were secured from Denmark in 1917, sufficient protection for the Anegada Passage, the entrance from Europe to the Caribbean.

The Lesser Antilles are dotted with formidable stone-constructed forts from the seventeenth and eighteenth centuries. Today Brimstone Hill on St. Kitts provides a magnificent view of adjacent islands to the north, but the spiked cannons jutting from its redoubts arouse only curiosity today. Nelson's dockyard in nearby Antigua, although located in a well protected natural harbour, has no military use in modern day warfare.

During the second World War the islands came into military prominence when the United States negotiated with Great Britain for the long-term (99 year) use of air fields from Antigua to Trinidad, in exchange for badly needed cargo ships to supply a besieged Britain. With the possible exception of Chaguaramos Bay in Trinidad, these facilities are still available to the United States and some, like those in Antigua and St. Lucia, are in current use as Air Force and/or NASA tracking stations or radar facilities.

During the second World War when France fell to Germany and the French islands of the Caribbean came under the control of the Vichy government, the military presence of supposedly neutral navy power in the roadstead of Martinique was cause for a great deal of concern. At one point an

substantially by Spanish officials and royalists and their families who were forced to relocate.

With the introduction of steam-driven vessels, the Caribbean-centered image of the Sea was modified somewhat. Sailing vessels (Kingsley, 1887, esp. chps. 1 and 2) or schooners were still used for local or regional communications, and steam-driven ships were primarily used for inter-ocean travel. St. Thomas and Curaçao continued to be important trading and communication centers, by serving as coaling stations, particularly for ships of those nations not possessing colonies in the Caribbean, such as Germany, Italy, and up to 1898 the United States.

The increased use of steamer service took trade and products more frequently out of the Caribbean, rather than stimulating trade within the region itself. This result was a source of regret to at least some islanders.

There were other adverse effects, such as the decline in the importance of the smaller or lesser ports on the various islands, and the permanent destruction brought about by the necessary modification of the principal ports to allow larger vessels with deeper draft to utilize the harbors. The case of the dynamiting of the coral barrier which limited the entrance to the harbor for the City of Santo Domingo is perhaps the most important example of this destruction (Barrett, 1962: 65).

However, with that decline rose the interest of the United States, which replaced Spain as an imperial power in the region. The interest of the United States dated from colonial times in the 17th century, and was probably initiated by Dutch traders, first from Curaçao and later from St. Eustatius. The bond between New York and Curaçao was an early relationship, of rarely recognized importance, except by Dutch historians (Hartog, 1968). The United States' ^{interest in the region} was solidified with the acquisition of Puerto Rico, the protectorate over Cuba, the construction of the Panama Canal, and the purchase of the Danish West Indies.

With the opening of the Canal in 1920, the image in the mind of the European of the Caribbean Sea acquired a new variation. It was now no longer just the terminal point for ships seeking West Indian products for the mother countries. The Caribbean came to be seen also as a passage-way of water between the two principal oceans. In the past, the bridging of the land barrier had frequently been preferred to the long haul through the Straits of Magellan (Phelan, 1959). Spain's official route to the Philippines had been over-land through Mexico to the port of Acapulco on the west coast. A more practical route was developed later through the Tehuantepec peninsula. All of this increased use of the Sea naturally ^a augmented the importance of the ports in the region, but it did not basically change their relationship to, nor the Sea's image in the mind of,

right to local autonomy in regional matters, what is the criteria for this guarantee to be? A decision will also need to be made on the inclusion of the states and dependencies with close ties to the area but not actually bordering on the Caribbean, that is, El Salvador, Guiana, The Bahamas, and Surinam. Are these entities to be offered regular membership in the organization?

Once decisions on regular membership are made, the convention must consider the problem of voting in the Assembly. Is an attribute based voting scheme acceptable? If so, are population and shoreline in the region acceptable attributes on which to allocate votes? Once the criteria for a voting scheme is agreed to, it will be necessary to reach agreement on the scaling techniques and criteria for establishing cut-off points between, for example, population sizes.

One further aspect of the Assembly procedure should be considered by the convention. This relates specifically to the selection of representatives to the Assembly. We have suggested that the Assembly be chosen by national parliaments and include, in addition to parliamentary representatives, representatives of science and industry nominated by the science and industrial associates in that state. We consider this aspect of our proposal crucial to the success of the regional organization. That is, we consider it crucial that representatives of science and industry be given a decisional role in the organization rather than simply technocratic

belong for the purpose of those election^s, in accordance with the terms of Article ____ on the distribution of seats;

(This item would be altered to read as follows:

"To elect the members of the Council from among its own membership;

"The Council must include at least three Parliamentary representatives, three representatives of science and three representatives of industry;

"No two members of a single state or dependency may serve on the Council at any one time.")

* To determine its rules of procedure and constitute such subsidiary organs as it may consider necessary or desirable;

* To decide on question of contribution;

* To approve the Community's budget;

* To consider the annual reports from the Council and the Secretary-General as well as any special ones which it may receive, including those submitted upon its own request;

* To approve the regulations proposed by the Council relating to the formation of contracts and joint ventures with juridical persons, duly sponsored by States for the exploitation of the area;

* To approve the report of the Enterprise, submitted through the Council;

* To adopt precise criteria for the sharing of benefits as well as approve annually the plan submitted by the Council on the basis of such criteria;

* To decide from time to time which parts of the area are open to exploration and exploitation, and to establish as may be deemed necessary for the orderly development of the area and preservation of the marine environment and its living resources, reserve areas free from exploration and exploitation.

joined the organization. Seventy-seven, or roughly three-quarters of these, would be controlled by the states in the region and the remaining quarter would be controlled by the dependencies. This is pointed out to show how the attribute based voting alters the situation from one in which the dependencies would have a majority of votes on a one state-one vote basis. We would add, however, that there is no reason to expect that any coalition would form along the lines of states versus dependencies.

Cuba, Venezuela, and Colombia would all have the maximum number of votes possible, eight, while at the other end of the spectrum Surinam and The Bahamas would have one vote each. The British Associated States and smaller colonies would have a total of five votes among nine dependencies. The largest of the dependencies, Puerto Rico, would have a total of five votes, on a par with Honduras and the Dominican Republic. Twelve of the twenty-three entities listed in Table I would have between four and six votes in the Assembly; eight entities would have three or less votes and the remaining three would have eight votes each.

Each state and dependency should be allowed to send one delegate to the Assembly for each of its allocated votes. The selection of delegates to the Assembly should be made by the parliaments of each regular member. In the case of a cluster of dependencies such as the British Associated States and smaller colonies the delegates should be selected

Venezuela, would be unlikely to enter an organization in which they would be consistently outvoted by a collection of colonial dependencies; in fact, it would seem likely that all independent nations in the region would adopt this perspective.

The final alternative is that of an attribute based voting allocation. In this method certain attributes of members are given prime consideration in determining the allocation of Assembly votes for each member. While this method in no way impugns the principle of state sovereignty, it does allow salient characteristics with regard to the proposed Community to be emphasized in the allocation of votes.

There is precedent for this method of allocating votes in the European Economic Community in which the original voting allocation was: Belgium, 14; France, 36; Germany, 36; Italy, 36; Luxembourg, 6; and Netherlands, 14. As primarily an economic organization, the allocation of Assembly votes in the EEC was based on economic attributes. Because of its different function we would allocate votes on other criteria in the Caribbean Community.

The two attributes which we would select in forming the voting model for the Caribbean Community are population and shoreline in the area. These attributes would balance representation in the Assembly by emphasizing the size of the entity involved in terms of its inhabitants and its degree of relationship to the area as measured by its shoreline on

terms of the following categories: functions, memberships, organs, and fiscal measures. Following these considerations, we will turn our attention to an interim procedure for establishment of the Community.

Functions

The functions of the Caribbean Community should be basically consonant with those outlined in Article 14 of the Latin American Seabed Draft Treaty. The modifications in these items would simply take into account the regional, rather than global, nature of the organization. The functions with modifications would be as follows:

(1) To provide for the orderly and safe development and rational management of the area and its resources for the benefit of the people of the Caribbean, with due regard for the welfare of succeeding generations (in this item "the people of the Caribbean" has been substituted for the word "mankind"; the final phrase beginning "with due regard..." has been added);

(2) To undertake scientific research in the area;

(3) To undertake exploration of the area, and exploitation of its resources as well as all activities relating to production, processing and marketing;

(4) To provide for the equitable sharing of benefits deriving from the exploration of the area and the exploitation of its resources, taking into account the special interests

In all, the land portion of the region contains some 2,000,000 square miles of territory, but most of it is broken up into small pieces. Of the total, nearly 80 per cent of the land area is accounted for by the region's "big three" -- Mexico, Colombia, and Venezuela. These three also account for 70 per cent of the region's population and more than 75 per cent of the total GNP of approximately 82 billion dollars. At the other end of the continuum from the Region's "big three" are eight territories which cover less than 200 square miles each. The smallest dependency which we have included is Montserrat with only 38 square miles, and the smallest state is Barbados which covers 170 square miles.

The lands of the Caribbean are a diverse group -- diverse in size, cultural heritage, and political form -- but they have in common two important factors. The first is their universal need for development. In more than half of the territories childhood mortality between the ages of one to four is from ten to twenty times as high as in the United States. In most of the nations there is only one doctor for each 3,000 members of the population. In Haiti and Honduras there is less than one doctor per 10,000 population. Other statistics of the region show that average calorie consumption, per capita income and literacy rates are all generally low. The great challenge confronting the nations of the Caribbean is to raise the quality of life of their people.

only Spain is no longer present. Great Britain, France, the Netherlands, and the United States remain involved, but all dependencies ² now have a considerable degree of local autonomy. Of the 123 million people in the region, only some five million now live in dependencies, yet ties of trade and custom still cause the nations of the region to look outward.

There are fourteen sovereign states in the Caribbean and sixteen dependencies if the region is defined in the North by the Yucatan Channel and in the South, by Colombia, Venezuela and Trinidad and Tobago. This includes the southern portion of Mexico, but excludes the Gulf of Mexico and therefore the United States. The other nation in the Gulf, Cuba, also borders on the Caribbean. For purposes of regional organization we felt it best to define the region so that the inclusion of the United States did not overpower the organization. As we will discuss below, one of the characteristics of the region is its shared need for development. The priority of problems in the Gulf of Mexico differ from those in the Caribbean, and in our opinion would be subject to the most advantageous resolution through bilateral agreement of the two powers that dominate 95 per cent of the area, Mexico and the United States.

Beginning with Mexico and moving clockwise around the area, the nations of the Caribbean include Mexico, Cuba, Jamaica, Haiti, Dominican Republic^b, Barbados, Trinidad and Tobago, ✓

clearly allows for states to begin planning for regional structures which would be linked to a future ocean authority.

Any regional organizations which were implemented in the interim prior to the establishment of a global ocean regime would, in important respects, serve as models for the global machinery. As we shall see when we discuss the Latin American concept of a Seabed Enterprise, this may be a matter of considerable importance in the design of the global Ocean Regime. If a Caribbean Community can prove the viability of an Ocean Enterprise, the developing world generally should have a far stronger position of argument for the implementation of this structure at the global level.

The Latin American Seabed Draft Treaty is considered to be a document of prime importance in providing guidelines for a regional community in the Caribbean as seven of the thirteen signatory states border on the Caribbean and two of the other signatories have close ties with the region and would be considered for regional membership in a Caribbean Community. We will make reference to this document when applicable in the design of the structural model for the Caribbean Community for Ocean Development which will be discussed following a description of the Caribbean region.

The Caribbean

The Caribbean is a mixture of West and East Indian, European and African cultures blended in an American cauldron. Of the five colonial powers which once dominated the region,