C. ACTIVITIES ON THE OCEANS

1. SHIPS-VESSELS

Although the 1982 Convention uses in part the term “ship” (Part II-Part X) and in part the term “vessel”, (Part I, Part XII-Part XV) the two words are identical in meaning. A definition for ships/vessels is not to be found in the Convention. The large range of topics covered by the Convention would have made a general definition inadequate, and it is completely acceptable to define the terms against the background of the aims and purposes of specific laws and regulations. For example, the Convention for Preventing Collisions at Sea, 1972 (COLREG), defines ships/vessels as follows:

The word “vessel” includes every description of water craft, including non-displacement craft and seaplanes, used or capable of being used as a means of transportation on water.

At times the Convention refers to a type of ship, such as when it defines a warship, (Art. 29) and at other times to the function or activity of the ship, such as when it speaks of tankers, nuclear powered ships and ships carrying nuclear, dangerous, or noxious substances, (Art. 22-23) fishing vessels, (Art. 62, Para. 4) research vessels, (Art. 248, Subpara. (d)) or even pirate ships. (Art. 103) The Convention does not make further distinctions with regard to size, cargo, or other common criteria. All vessels must be registered by a state, thereby obtaining the nationality and the right to fly the flag of the registry state. (Art. 91)

2. NAVIGATION

Transportation and communication are the most important uses of the oceans. Vessels navigating from port to port in the conduct of regional and global economic activities carry more than 90% by weight of all international trade. Consequently, navigation is a very sensitive matter, and it comes as no surprise that this was one of the major concerns during the 1973-1982 Conference.

A significant objection to the retention of the principle of freedom of navigation involved jurisdiction with regard to pollution. In addition, coastal states in particular wanted more rights for security reasons. These two questions meshed into the parallel discussion of the coastal states' objectives of extending the territorial sea and establishing an economic zone, which in turn led to the question of the impact these zones would have on navigation. Some states feared that one or more states could generally or selectively hamper navigation through these zones. The Convention's solution is as follows:

(a) Beyond the territorial sea with its breadth of twelve nautical miles, (Art. 3) the traditional principle of the freedom of navigation remains effective (Art. 87) with the exception of these matters in which the coastal state has enumerated rights in the exclusive economic zone (Art. 58) or in the contiguous zone, (Art. 33) such as the implementation of safety zones around artificial islands, (Art. 60, Para. 4-7) regulations for clearly defined areas for the prevention of pollution, (Art. 211, Para. 5-7; Art. 234) enforcement of pollution regulations, (Art. 220) and measures to avoid pollution from marine casualties; (Art. 221)
Activities

(b) An independent legal regime is established for straits used for international navigation (Part III) based on the right of transit passage. (Art. 38) Transit passage applies only if there is no acceptable route other than the traversal of the territorial sea of coastal states bordering the strait; (Art. 37; Art. 38, Para. 1)
(c) The concept of archipelagic sea lane passage through archipelagic waters was developed. (Art. 53, 54)

These three solutions settled the major questions involving navigation. The concept of “innocent passage”, which was first codified at the 1958 Conference, was basically retained and applied in the territorial sea, but it was newly defined (Part II, Sec. 3) with the result that a coastal state can more easily deny that a vessel's passage is “innocent”.

3. FISHERIES

The principle of freedom of fishing has a long historical tradition. However, the realization that the living resources of the ocean are in fact exhaustible, the needs of the rapidly growing world population, and the technological progress in the fishing industry have made a change unavoidable. Although the principle of the freedom of fishing continues to apply on the high seas, (Art. 87, Subpara. 1(e)) there is very little substance to this freedom. More than 90% of the living resources of the oceans are concentrated in the zones subject to the sovereignty of coastal states, (Art. 56-57) and even within these zones the important part of the harvest comes from near the coast. The United States and other countries harvest about 60% of their total catch within twelve nautical miles of the coast, meaning that about one-third of the annual fish catch, which has amounted in recent years to nearly 70 million tons, is harvested in the exclusive economic zones (but beyond the territorial sea). The Soviet Union and Japan each harvest annually more than 10% of the total world catch; the United States, Chile, Peru, China, Norway, and South Korea each harvest about 5%. These eight countries alone achieve more than half of the world total catch, whereby most of the catch is from fish stocks near the coast of these countries.

Ultimately, the greatest impact on fishing from the 1982 Convention is due to the extension of the territorial sea from three to twelve nautical miles. Within this zone, from which about half of the annual world fish harvest is obtained and which is subject to the full sovereign jurisdiction of the coastal state, the Convention does not have intervening jurisdiction.

The legal concept for fishing rights of the coastal state in its exclusive economic zone deviates from full sovereignty, although in practice this deviation might well prove insignificant. According to this concept, the coastal state has preferential fishing rights (Art. 62, Para. 2) and is responsible for conservation (Art. 61) and optimum utilization. (Art. 62, Para. 1) Furthermore, the coastal state is obligated to allow other states to fish the surplus, (Art. 62, Para. 2) giving geographically disadvantaged and developing states preference, (Art. 69-70) and to co-operate with competent international organizations in conservation matters. (Art. 61) This legal concept will be successful only if the responsible states take all aspects, both rights and obligations, of the Convention seriously. If the Convention is to be of benefit for both coastal states and others, due regard must be paid to Convention requirements concerning marine scientific research, (Art. 56; Art. 239) protection of the marine environment, (Art. 56; Art. 194) cooperation, (Art. 61; Art. 62, Para. 2) acting in good faith when applying provisions of the Convention, (Art. 300) and a willingness to submit disputes to compulsory dispute settlement procedure (Part XV) rather than to compulsory conciliation. (Art. 297, Para. 3)

For the remaining ocean space, the high seas (Art. 86) (which cover about half of the planet's surface, but contain only 10% of the total living resources of the ocean), the principle of freedom
of fishing survived, (Art. 87, Subpara. 1(e)) but only in its basic structure. The relative lack of resources in comparison with the efficiency of modern fishing technology and the pressing needs of the present and future world population permit fishing only on the basis of co-operation and sharing. (Art. 117; Art. 119, Para. 3) The essential measures for conservation (Art. 119-120) are beyond the capabilities of any single state engaged in high sea fishing.

4. OVERFLIGHT

Although the 1982 Convention has jurisdiction with respect to overflight of ocean space, it pays very little attention to the subject. In much the same way that shipping relies on regulations provided by the International Maritime Organization (IMO) for safety standards, aviation relies on international regulations and standards of the International Civil Aviation Organization (ICAO). Rights and obligations arising from these international regulations are not affected as long as they are compatible with the 1982 Convention. (Art. 311, Para. 2). The right of overflight is patterned on the right of navigation. The principle of freedom of overflight applies on the high seas; (Art. 87, Subpara. 1(b)) basically, the principle also applies in the exclusive economic zone, (Art. 58; Art. 87, Subpara. 1(b)) with the general restriction that overflights must be conducted with due regard for the rights and duties of the coastal state. (Art. 58, Para. 3) The coastal states are to enforce international pollution regulations and standards in the exclusive economic zone.

Over straits (Part III) and archipelagic waters, (Part IV) aircraft have the right of transit passage (Art. 38, Para. 1) or archipelagic sea lane passage. (Art. 53, Para. 2) They must observe the Rules of the Air and monitor at all times the assigned radio frequency. (Art. 39; Art. 54)

The coastal state has full sovereignty in the air space over the territorial sea, and aircraft do not have a right of “innocent passage.”

5. MARINE SCIENTIFIC RESEARCH

The safe and economic use of the oceans and the preservation of same are dependent in every respect on sufficient scientific research. The ocean is not only a source of exploitable resources; it is a very sensitive ecological system, which is often not obvious immediately only because the space is so huge and enormous quantities of water are involved.

Although there are today about 150 international non-governmental organizations and 100 governmental organizations as well as a large number of national institutions which are concerned to a greater or lesser degree with marine science, the exploration of the oceans has really barely begun, and thorough, efficient research will be possible only if all concerned work closely together. For the scientific community, the 1982 Convention was a setback, as marine scientific research in the exclusive economic zone (Art. 56, Subpara. 1(b)) and on the continental shelf (Art. 77, Para. 1) was delegated to the coastal states and cannot be conducted without their consent, (Art. 246, Para. 2) whereas only the high seas were declared open to research by all. (Art. 87, Subpara. 1(f)) These limitations on the space open for free research were caused by developing states who feared they might be excluded completely or not benefit sufficiently from research activities; they were also suspicious that such activities could be a cover for espionage. It remains to be seen whether global scientific research activities will be severely hampered by
coastal states. Without a doubt, many coastal states will be forced to implement or improve their own research programmes, and this will in the long run enlarge considerably the scientific community and increase the amount of scientific data available.

The Convention provisions are designed to achieve this goal (Part XIII) as they require international co-operation (Art. 242-244) and development aid and the transfer of technology, (Part XIV) in particular demanding that research be conducted exclusively for peaceful purposes (Art. 242, Subpara. (a)) and that knowledge resulting from scientific research be made public. (Art. 244, Para. 1) Corresponding obligations apply for scientific research conducted in the Area (Art. 143) and are also designated as objectives of the Authority.

6. DEEP-SEA MINING

Deep-sea mining is without any historical precedents, and there are no activities being conducted even today, contrary to the belief of many of the participants of the 1973-1982 Conference that work would soon commence. The concept of the 1982 Convention for deep-sea mining (Part XI) is new and contains three basic aspects. First, the Convention contains a “Magna Carta” for ownership of the resources, (Art. 137, Para. 2) management, (Art. 156-185) and management policy. (Art. 136-155) Second, it provides administrative and technical provisions. (Art. 151-154; Annexes III and IV) Third, its provisions are designed to have an impact on the world market for minerals (Art. 133, Subpara (b)) recovered from the Area, (Art. 1, Subpara. 1(1)) whether with the goal of fostering healthy development of the world economy and balanced growth of international trade (Art. 150) or of protecting developing countries from adverse effects of such market policy (Art. 150, Subpara. (h)) in particular. The mining of deep-sea resources (Art. 153, Subpara. (a)) is to be carried out directly by the Enterprise of the Sea-Bed Authority (Art. 170) or, on specific authorization by and on the basis of a contract with the Authority, by operators. (Art. 151; Art. 153; Annex III) An operator is to designate in his application for exploitation an area (Annex III, Art. 8) large enough to allow two mining operations. The Authority then has the option of claiming either of the two sites for the Enterprise or a developing state. (Annex III, Art. 8-9) Under the present conditions, exploitation would be economically feasible only if three million metric tons were recovered annually over a period of twenty-five years, requiring initial investments of more than one billion US dollars. Deep-sea mining would consist of the following steps: prospecting, exploration, exploitation/collecting, transfer to the surface, transport to shore base, and processing. The Enterprise, which has title to all minerals and processed substances it produces, (Annex IV, Art. 12, Para. 4, Art. 1, Para. 1) may also carry out transportation and marketing. (Annex IV, Art. 1, Para. 1; Art. 170, Para. 1)

7. ARTIFICIAL ISLANDS AND STRUCTURES

The large-scale use of artificial structures has been common for quite some time, as the oil and gas industries began using them for off-shore operations. The Convention is silent on the precise meaning of an artificial structure, but refers only to artificial islands, installations, structures, and equipment, as well as the permanent means of warning of the presence of such structures, (e.g., Art. 60, Para. 3; Art. 87, Para. 1; Art. 147; Art. 259) and establishes that in
Activities

general artificial structures do not enjoy the legal status of islands. (Art. 121 (Art. 60, Para. 8; Art. 147, Subpara. 2(e); Art. 259)).

In terms of the theoretical possibilities for their uses for scientific research, military installations, power stations, industrial plants, fish farming, sea cities, and other operations, artificial islands are still very much mere prospects for the future. The first beneficiaries will be the coastal states having exclusive jurisdiction over such installations, (Art. 60, Para. 2) which are much more likely to be economically rewarding near the coast than anywhere else. Only on the high seas do all states enjoy the freedom to construct artificial islands and other installations; (Art. 87, Subpara. 1(d)) this includes the sea-bed area as long as the state is not engaged in activities controlled by the Sea-Bed Authority. (Art. 147) The use of artificial islands and installations can be governed by rules and regulations from three legal sources: regulations of the coastal state, (Art. 60; Art. 80) regulations of the Sea-Bed Authority with respect to activities in the Area, (Art. 147, Subpara. 2(a); Annex III, Art. 17) and, when such use is undertaken on the high seas, the national regulations of the state concerned or of the state of registry. (Art. 262) Regulations from any of these sources must be in accordance with the Convention. The principle that the high seas shall be reserved for peaceful purposes (Art. 88) and its counterparts for the Area (Art. 141; Art. 147, Subpara. 2(d)) are to be observed at all times. The Convention has specific regulations for artificial structures with regard to coastal state jurisdiction, (Art. 60) safety zones, impact on shipping, (Art. 60; Art. 147; Art. 260-261) identification marking and warning signals, (Art. 60, Para. 3; Art. 262) and their removal. (Art. 60, Para. 3; Art. 147, Subpara. 2(a))

One of the main concerns about artificial islands involves their impact on the marine environment. States are therefore required to take general measures to prevent damage to the environment (Art. 194, Para. 2) and, in particular, to regulate the design, construction, equipment, operation, and manning of such installations and devices; (Art. 194, Subpara. 3(c); Art. 60, Para. 2) coastal states are also required to implement damage prevention regulations (Art. 208, Para. 1) for sea-bed activities within their jurisdiction no less effective than international standards. (Art. 208, Para. 3)

8. CABLES AND PIPELINES

The first technological utilization of the sea-bed was the laying of submarine cables. Although a cable was laid between France and England as early as 1851, the first transatlantic telephone cable (which could carry thirty-six conversations simultaneously) did not go into operation until 1956. But cables have been subject to international regulations for a long time. Sea-bed pipelines have only recently been employed, and then only for short-distance transportation purposes. The Convention does not break any new ground in this legal field. It confirms the right of states to use the sea-bed for cables and pipelines, (Art. 87, Subpara. 1(d); Art. 112) affirms this right (with only slight restrictions) for both the continental shelf and the exclusive economic zone, (Art. 79) and obliges states to adopt laws to regulate liability for breakage of cables and pipelines and cases of indemnity. (Art. 113-115)

9. DUMPING

Dumping is any deliberate disposal at sea which is not incidental to normal operations, excluding the case of matter placed in the sea for a purpose other than mere disposal (e.g., arising from transport operations). There are two methods of dumping: disposal of wastes in bulk, and disposal of wastes in containers from vessels, aircraft, platforms, or other man-made
structures at sea. The 1982 Convention provides a detailed definition of dumping. (Art. 1, Subpara. 1(5))

Dumping early became a matter of public concern, as it is extremely difficult to predict long-term effects. Although not recognized in writing in the 1958 Convention on the Law of the Sea, dumping was regarded as one of the freedoms of the use of the sea. As such, the only restriction on its exercise was reasonable regard for the interests of other states in their exercise of the freedom of the seas. (1958 High Sea Convention, Art. 2) Under the 1982 Convention, dumping is the subject of pollution regulations (Art. 194, Subpara. 3(a), Art. 210; Art. 216) and may not be authorized by any state (Art. 210, Para. 3) if not permitted by global rules and standards (Art. 210, Para. 6). Dumping within areas of coastal state or Sea-Bed Authority jurisdiction is subject to their regulations, provisions, and enforcement. (Art. 210; Art. 216; Art. 209; Annex III, Art. 17, Subpara. 2(f), Art. 215) The flag state and the state of loading are also required to enforce applicable laws. (Art. 216, Subpara. 1(b)-(c))

Although dumping is the subject of codification under the 1982 Convention, it is still basically a non-written freedom of the high seas, as the Sea-Bed Authority's jurisdiction in dumping matters is restricted to activities in the Area. (Art. 1, Subpara. 1(3))

### 10. ARCHAEOLOGICAL AND HISTORICAL OBJECTS FOUND IN THE SEA

"Archaeological and historical objects found in the sea" conjures up images of ships, their holds full of gold and jewels, which sank during the time of the exploration (and exploitation) of the Americas; this can quickly be extended to include sunken cities and lost works of art, but these will generally be found only in waters near the coast in the territorial sea, and consequently subject to the sovereignty and jurisdiction of the coastal state. (Art. 2) In any case, the 1982 Convention obligates all states to protect such objects found at sea and to cooperate with this purpose. (Art. 303, Para. 1) The Convention neither defines which objects are archaeological or historical, nor does it state which "sea" is meant. As, however, the Convention deals expressly with finds in the Area, (Art. 149) "sea" can mean only the continental shelf (Art. 76) or the area inside the outer limits of the exclusive economic zone. (Art. 1, Subpara. 1(1); Art. 134; Art. 55) Since the Convention grants coastal states only limited rights for the control of traffic in such objects found in the contiguous zone, (Art. 303, Para. 2) it appears that coastal states do not enjoy any preferential rights with regard to objects found outside the contiguous zone. Objects found in the "sea" (outside coastal state sovereignty) are to be preserved or disposed of for the benefit of mankind as a whole, with due regard to states with preferential interests. (Art. 149) There remains the question as to what is of historical interest. In the North Sea and English Channel alone, there are about 10,000 wrecks (many from the fighting in two wars), and many of them must be quite old. The solution to this problem will not be as difficult as it might appear. As the provisions apply to objects of "historical" nature, the interior of a ship which sank some decades ago and objects found in such a wreck could well fall under this classification today. But this solution as provided by the Convention does not prevail over the rights of identifiable owners and the law of salvage or other rules of admiralty, nor does it prejudice international agreements. (Art. 303, Para. 3-4)
11. MILITARY USE

The basis for the work of the 1973-1982 Conference was the UN General Assembly Resolution 2749 (1970), which had declared that the area was to be open to use exclusively for peaceful purposes by all states. The 1982 Convention follows this directive to the letter, using exactly the same wording (Art. 141) as the resolution. Although of less weight, it is still significant that the Convention reserves the high seas for peaceful purposes (Art. 88; Art. 58, Para. 2) and, under the provision headlined “Peaceful Uses of the Sea”, (Art. 301) requires States Parties to refrain from threat or use of force against the territorial integrity of any state or from acting in any manner inconsistent with the principles of international law embodied in the Charter of the United Nations.

Do these provisions have a general impact on the military use of the oceans? Of what importance is the Preamble to the 1982 Convention, which states that the codification of the law of the sea will contribute to the strengthening of peace and security? These principles show one face of the Convention's approach to military use of the oceans; the other is the direct application of Convention provisions and the impact thereof on naval forces. A quick review of the latter shows that naval forces are entitled to use the oceans just as commercial shipping is, and in some cases have a “better position”, as naval ships enjoy immunity, (Art. 32; Art. 95) the regulations for the protection and preservation of the marine environment (Art. 192-236) do not apply to them, (Art. 236) and military activities can be excluded from compulsory dispute settlement. (Art. 298, Subpara. 1(b)) The naval superpowers pushed and prodded the 1973-1982 Conference to come to this result. But this summary does not reflect the many varied questions which have already arisen, much less the profusion of questions that will spring up if the 1982 Convention does not become the only legal authority within a reasonable period of time. Due to the vague and imprecise wording of many of the provisions, leaving considerable leeway for interpretation, the position of warships is not as unassailable as the summary could lead one to believe. It is questionable, for example, whether

(a) stricter regulations for prevention of pollution within a “clearly defined area” (Art. 211, Para. 5) apply to naval vessels; (Art. 236; Art. 58, Para. 3)

(b) the launching or taking on board of any military device is "innocent;" (Art. 19, Subpara. 2(a) and (f))

(c) military exercises, manoeuvres, or weapons tests in the exclusive economic zone of foreign coastal states are “associated with the operation of ships” and “compatible with the other provisions of this Convention.” (Art. 58, Para. 1)

Only the future will show the impact of the 1982 Convention on the military use of the oceans. Any incident can quickly change the outlook. Personnel in navies operating internationally will have to have thorough knowledge of the legal regime of the oceans and be particularly sensitive to local and regional interpretations of the 1982 Convention or of the law of the sea. Their burden would be lessened by a global acknowledgement and acceptance of the 1982 Convention and an effective judicial system.