IMPLICATIONS OF
THE UNITED NATIONS CONVENTION ON
THE LAW OF THE SEA FOR THE
INTERNATIONAL MARITIME ORGANIZATION

Study by the Secretariat of the
International Maritime Organization (IMO)
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INTRODUCTION

This document is intended to provide a comprehensive overview of the work of the International Maritime Organization (IMO) relating to the United Nations Convention on the Law of the Sea (“the Convention” or “UNCLOS”). Originally prepared in 1987 and issued as document LEG/MISC.1, this survey was substantially revised and updated. The present version updates LEG/MISC.5 by reflecting developments that took place from January 2007 to May 2008. It was finalized in consultation with the Division for Ocean Affairs and the Law of the Sea of the United Nations (DOALOS).

Part I includes comments and concepts of relevance in assessing the general legal framework relating to UNCLOS and the work of IMO and its instruments.

Part II provides a detailed analysis of the relationship between UNCLOS and various IMO instruments.

Part III deals with the role of IMO in settling disputes, in the light of the UNCLOS provisions in this area.

In Part IV consideration is given to the scope of IMO activities since the entry into force of UNCLOS and to the possibilities of modifying or extending the Organization’s functions and responsibilities.

The annex contains a table showing the relationship between articles of UNCLOS and relevant IMO instruments.

An updated table of the status of all IMO treaty instruments referred to in this document, including those in the annex, can be found on the IMO website (www.imo.org).

The contents of this document complement the information and analysis contained in two publications prepared by DOALOS:

PART I
GENERAL FEATURES OF THE RELATIONSHIP BETWEEN
UNCLOS AND IMO SHIPPING REGULATIONS

Historical background

Since 1973 the Secretariat of IMO (formerly IMCO) has actively contributed to the work of the Third United Nations Conference on the Law of the Sea (UNCLOS) in order to ensure that the elaboration of IMO instruments conforms with the basic principles guiding the elaboration of UNCLOS.

Overlapping or potential conflict between IMO’s work and that of UNCLOS have been avoided by the inclusion in several IMO conventions of provisions which state specifically that their text does not prejudice the codification and development of the law of the sea by UNCLOS or any present or future claims and legal views of any State concerning the law of the sea and the nature and extent of coastal and flag State jurisdiction.

After the adoption of UNCLOS, the IMO Secretariat held consultations with the Office of the Special Representative of the Secretary-General of the United Nations for the Law of the Sea, and later with the Division for Ocean Affairs and the Law of the Sea, Office of Legal Affairs, United Nations, in connection with several matters relating IMO’s work to UNCLOS. Even before the entry into force of the Convention in 1994, explicit or implicit references to its provisions were incorporated into several IMO treaty and non-treaty instruments.

The global mandate of IMO

Although IMO is explicitly mentioned in only one of the articles of UNCLOS (article 2 of Annex VIII), several provisions in that convention refer to the “competent international organization” in connection with the adoption of international shipping rules and standards in matters concerning maritime safety, efficiency of navigation and the prevention and control of marine pollution from vessels and by dumping.

In such cases the expression “competent international organization”, when used in the singular in UNCLOS, applies exclusively to IMO, bearing in mind the global mandate of the Organization as a specialized agency within the United Nations system established by the Convention on the International Maritime Organization (the “IMO Convention”). The IMO Convention was adopted by the United Nations Maritime Conference in Geneva on 6 March 1948. (The original name of “Inter-Governmental Maritime Consultative Organization” was changed by IMO Assembly resolutions A.358(IX) and A.371(X), adopted in 1975 and 1977 respectively.)

Numerous provisions in UNCLOS refer to the mandate of several organizations in connection with the same subject matter. In some cases, activities set forth in these provisions may involve IMO working in co-operation with other organizations. In order to assist States and to contribute to a better understanding of the implications of the Convention for the organizations and bodies dealing with maritime affairs both within and outside the United Nations system, the Division for Ocean Affairs and the Law of the Sea, Office of Legal Affairs has prepared a table on “Competent or relevant international organizations” in relation to UNCLOS. Published in the Law of the Sea Bulletin No.31, the table lists subjects and articles in the sequence in which they appear in the Convention, together with the corresponding competent organizations.
Article 1 of the IMO Convention establishes the global scope of IMO safety and anti-pollution activities. It also refers to other tasks such as the promotion of efficiency of navigation and the availability of shipping services based upon the freedom of shipping of all flags to take part in international trade without discrimination. Article 59 mentions IMO as the specialized agency within the United Nations system in relation to shipping and its effect on the marine environment. Articles 60 to 62 refer to co-operation between IMO and other specialized agencies as well as governmental and non-governmental organizations, on matters of common concern and interest.

The following facts indicate the wide acceptance and uncontested legitimacy of IMO’s universal mandate in accordance with international law:

- 168 sovereign States representing all regions of the world are at present Parties to the IMO Convention and accordingly Members of IMO;
- all Members may participate in meetings of the IMO bodies responsible for drafting and adopting recommendations containing safety and anti-pollution rules and standards. These rules and standards are normally adopted by consensus;
- all States, whether or not they are Members of IMO or the United Nations, are invited to participate in the IMO conferences responsible for adopting new IMO conventions. All IMO treaty instruments have so far been adopted by consensus.

Relationship between UNCLOS and IMO instruments

UNCLOS is acknowledged to be an “umbrella convention” because most of its provisions, being of a general kind, can be implemented only through specific operative regulations in other international agreements.

This is reflected in several provisions of UNCLOS which require States to “take account of”, “conform to”, “give effect to” or “implement” the relevant international rules and standards developed by or through the “competent international organization” (i.e. IMO). The latter are variously referred to as “applicable international rules and standards”, “internationally agreed rules, standards, and recommended practices and procedures”, “generally accepted international rules and standards”, “generally accepted international regulations”, “applicable international instruments” or “generally accepted international regulations, procedures and practices”.

The following UNCLOS articles and provisions are of particular relevance in this context:

- article 21(2) refers to the “generally accepted international rules or standards” on the “design, construction, manning or equipment” of ships in the context of laws relating to innocent passage through the territorial sea; article 211(6)(c) refers to the “generally accepted international rules and standards” in the context of pollution from vessels; article 217(1) and (2) refers to the “applicable international rules and standards” in the context of flag State enforcement; and article 94(3), (4) and (5) requires flag States to conform to the “generally accepted international regulations, procedures and practices” governing, inter alia, the construction, equipment and seaworthiness of ships, as well as the manning of ships and the training of crews, taking into account the “applicable international instruments”;
- articles 21(4), 39(2), and by reference article 54 refer to “generally accepted international regulations” in the context of prevention of collisions at sea;

- article 22(3)(a) refers to the “recommendations of the competent international organization” (IMO) in the context of the designation of sea lanes, the prescription of traffic separation schemes, and their substitution. In the same context, articles 41(4) and 53(9) provide for the referral of proposals by States to the “competent international organization” (IMO) with a view to their adoption;

- article 23 refers to the requirements in respect of documentation and special precautionary measures established by international agreements for foreign nuclear-powered ships and ships carrying nuclear or inherently dangerous or noxious substances;

- article 60 and article 80 refer to the “generally accepted international standards established by the competent international organization” (IMO) for the removal of abandoned or disused installations or structures to ensure safety of navigation (paragraph 3); the “applicable international standards” for determination of the breadth of safety zones; the “generally accepted standards” or recommendations of the “competent international organization” (IMO) where the breadth exceeds a distance of 500 metres (paragraph 5); and the “generally accepted international standards” regarding navigation in the vicinity of artificial islands, installations, structures and safety zones (paragraph 6);

- article 94(3), (4), and (5), which regulates the duties of flag States, and article 39(2), which concerns the duties of ships in transit passage, refer to the “generally accepted international regulations, procedures and practices” for safety at sea and for the prevention, reduction and control of pollution from ships;

- article 210(4) and (6) refers to the “global rules, standards, and recommended practices and procedures” for the prevention, reduction and control of pollution by dumping; article 216(1) refers to the enforcement of such “applicable rules and standards established through competent international organizations or general diplomatic conference”;

- article 211 refers to the “international rules and standards” established by “States acting through the competent international organization” (paragraph 1) and “generally accepted international rules and standards established through the competent international organization” (paragraphs 2 and 5) for the prevention, reduction and control of pollution of the marine environment from vessels. Article 217(1) and (2), article 218(1) and (3), and article 220(1), (2) and (3), dealing with enforcement of anti-pollution rules, refer to the “applicable international rules and standards”. Articles 217(3) and 226(1) refer to the certificates (records and other documents) required by international rules and standards in the context of pollution control;

- article 211(6)(a), in connection with pollution from vessels, refers to such international rules and standards or navigational practices are made applicable, through the competent international organization (IMO), for special areas;
article 211(7) requires such “international rules and standards” to include, *inter alia*, those relating to prompt notification to coastal States whose coastline or related interests may be affected by incidents, including maritime casualties, which involve discharges or probability of discharges;

- articles 219 and 226(1)(c) refer to “applicable international rules and standards” relating to seaworthiness of vessels, while article 94(5) refers to “generally accepted international regulations, procedures and practices” governing seaworthiness of ships.

These provisions clearly establish an obligation on UNCLOS States Parties to apply IMO rules and standards. The specific form of such application relies to a great extent on the interpretation given by Parties to UNCLOS to the expressions “take account of”, “conform to”, “give effect to” or “implement” in relation to IMO provisions. A distinction should be also made between the two main types of IMO instruments that contain such provisions: on the one hand, the recommendations adopted by the IMO Assembly, the IMO Maritime Safety Committee (MSC) and the IMO Marine Environment Protection Committee (MEPC), and on the other the rules and standards contained in IMO treaties.

**IMO resolutions**

All IMO Member States are entitled to participate in adopting resolutions of the IMO Assembly, the MSC and the MEPC which incorporate recommendations on the implementation of technical rules and standards not included in IMO treaties. These resolutions are normally adopted by consensus and accordingly reflect global agreement by all IMO Members. Parties to UNCLOS are expected to conform to these rules and standards, bearing in mind the need to adapt them to the particular circumstances of each case. Moreover, national legislation implementing IMO recommendations can be applied with binding effect to foreign ships.

Technical codes or guidelines included in the resolutions are frequently made mandatory by incorporation into national legislation. This is, for instance, the case of the International Maritime Dangerous Goods Code (IMDG Code), which came into mandatory effect on 1 January 2004 following the entry into force of amendments to SOLAS chapter VII.

In several cases, codes and guidelines initially contained in non-mandatory IMO resolutions are incorporated at a later stage into IMO treaties. For instance, the International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk (IBC Code) has been incorporated into both SOLAS and MARPOL.

**IMO treaty instruments**

The general obligations established by UNCLOS regarding compliance with IMO rules and standards should, in the case of IMO conventions and protocols, be assessed with reference to the specific operative features of each treaty. These features relate not only to the way in which the rules and standards regulate substantive matters such as the construction, equipment or manning of ships, but also to the procedural rules governing the interrelations between flag and port State jurisdiction in matters such as certificate recognition and enforcement of sanctions following violation of treaty obligations.
The application of IMO treaties should also be guided by the provisions contained in articles 311 and 237 of UNCLOS. Article 311 regulates the relation between the Convention and other conventions and international agreements. Article 237 includes specific provisions on the relationship between UNCLOS and other conventions concerned with the protection and preservation of the marine environment.

Article 311(2) provides that the Convention shall not alter the rights and obligations of States Parties which arise from other agreements, provided that they are compatible with the Convention and do not affect the application of its basic principles. As long as this paramount proviso of compatibility with the basic principles of the Convention is observed, international agreements expressly permitted or preserved by other articles of the Convention will not be affected (article 311(5)).

Article 237(1) establishes that the provisions of part XII of the Convention are without prejudice to the specific obligations assumed by States under previously-concluded special conventions and agreements relating to the protection and preservation of the marine environment, or to agreements which may be concluded in furtherance of the general principles set forth in the Convention. Paragraph 2 provides that specific obligations assumed by States under special conventions with respect to the protection and preservation of the marine environment should be carried out in a manner consistent with the general principles and objectives of the Convention.

Against this background, compatibility between UNCLOS and IMO treaties can be established on the following basis:

- Several provisions of UNCLOS reflect principles compatible with those already included in IMO treaties and recommendations adopted prior to the Convention. In this regard, mention should be made of provisions on collisions at sea, search and rescue of persons in distress at sea, traffic separation schemes, exercise of port State jurisdiction for the protection and preservation of the marine environment, liability and compensation for oil pollution damage and measures to avoid pollution arising from maritime casualties.

- The active participation of the IMO Secretariat at the Third United Nations Conference on the Law of the Sea has ensured that no overlapping, inconsistency or incompatibility exist between UNCLOS and IMO treaties adopted after 1973. In some cases, compatibility has been further ensured by the inclusion in IMO treaties of specific clauses indicating that these treaties should not be interpreted as prejudicing the codification and development of the law of the sea by UNCLOS (see article 9(2) of MARPOL 73/78, article V of STCW 1978, and article II of SAR). A similar provision is included in the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972 (London Convention), in respect of which IMO performs secretariat functions. These clauses also stipulate that nothing in these treaties should prejudice present or future claims and legal views of any State concerning the law of the sea and the nature and extent of coastal and flag State jurisdiction. In this way, legal certainty is provided, ensuring that IMO global regulatory activities do not overlap with developments in the field of codification of the law of the sea.
Legal status of IMO treaties in accordance with international law and the Law of the Sea. Consequences for Parties to UNCLOS

The degree of acceptability and worldwide implementation accorded to the rules and standards contained in IMO treaties is paramount in considering the extent to which Parties to UNCLOS should, in compliance with obligations specifically prescribed in the Convention, apply IMO rules and standards. In this regard it should be noted that reference to the obligation for States Parties to the Convention to “take account of”, “conform to”, “give effect to” or “implement” IMO rules and standards is related to the requirement that these standards are “applicable” or “generally accepted”. This means that the degree of international acceptance of these standards is decisive in establishing the extent to which Parties to UNCLOS are under an obligation to implement them.

The criteria for establishing the degree of compliance of the most important IMO treaties with the requirement of general acceptance must in the first place take into account that, since 1982, formal acceptance of the most relevant IMO treaty instruments has increased so greatly that it seems beyond question that these treaties should be accepted and implemented worldwide.

As of 31 August 2008, the three conventions that include the most comprehensive sets of rules and standards on safety, pollution prevention and training and certification of seafarers, namely, SOLAS, MARPOL and STCW Conventions, have been ratified by 158, 147 and 151 States respectively (representing approximately 99% gross tonnage of the world’s merchant fleet). Since the general degree of acceptance of these shipping conventions is mainly related to their implementation by flag States, it is of paramount importance to note that States Parties to these Conventions in all cases represent more than 90 per cent of the world’s merchant fleet. The effectiveness of this wide implementation is strengthened by the fact that, under the principle of “no more favourable treatment”, port States which are Parties to these conventions, respectively, are obliged to apply these rules and standards to vessels flying the flag of non-party States.

Technical rules and standards contained in several IMO treaties can be updated through a procedure based on tacit acceptance of amendments. This procedure enables amendments to enter into force on a date selected by the conference or meeting at which they are adopted unless, within a certain period of time after adoption, they are explicitly rejected by a specified number of Contracting Parties representing a certain percentage of the gross tonnage of the world’s merchant fleet.

IMO treaties and amendments to them are normally adopted by consensus.

These facts are decisive in establishing the extent to which any obligation under UNCLOS to comply with generally accepted safety and anti-pollution shipping standards can bind Parties to the Convention even if they are not Parties to the IMO treaties containing those rules and standards. In determining the degree to which such binding character might operate, account should be taken of the following circumstances:

- The degree of compliance with IMO rules tends to vary depending on the interpretation given by UNCLOS Parties to the expressions “give effect to”, “implement”, “conform to” or “take account of”, in respect of IMO rules and standards. Parties should, in each case, assess the context of the UNCLOS provisions establishing obligations in this regard and relate this context to the specific IMO treaty and corresponding rules and standards referred to in UNCLOS.
The most important consideration in such an assessment seems to be that Parties to UNCLOS should ensure that ships flying their flag or foreign ships under their jurisdiction apply generally accepted IMO provisions regarding safety and prevention and control of pollution. Non-compliance with these IMO provisions would result in sub-standard ships and violate the basic obligations set forth in UNCLOS concerning safety of navigation and prevention of pollution from ships.

The application by Parties to UNCLOS of IMO rules and standards should be seen as an incentive for them to become Parties to the IMO treaties containing those rules and standards. As Parties to those treaties they would receive specific entitlements in accordance with specific treaty law provisions in each case. Paramount among them would be the value accorded by IMO treaties to certificates issued by Parties. Also important would be the right to participate in any action taken to amend the treaty.

The exercise of State jurisdiction in accordance with IMO instruments

While UNCLOS defines the features and extent of the concepts of flag, coastal and port State jurisdiction, IMO instruments specify how State jurisdiction should be exercised so as to ensure compliance with safety and shipping anti-pollution regulations. The enforcement of these regulations is primarily the responsibility of the flag State. Nevertheless, one of the most important features reflecting the evolution of IMO’s work in the last three decades is the progressive strengthening of port State jurisdiction with a view to correcting non-compliance with IMO rules and standards by foreign ships voluntarily in port. Voluntary access to port implies acceptance by the foreign ship of the port State’s powers to exert corrective jurisdiction in order to ensure compliance with IMO regulations. The relationship between flag and port State jurisdiction will be further analysed in part II.

An important distinction of a general kind can nevertheless be advanced here: in every IMO treaty the exercise of port State jurisdiction to correct deficiencies in the implementation of rules and standards laid down in these treaties should be distinguished from the power of the port State to impose sanctions. Sanctions can be imposed for violations occurring outside port State jurisdiction and committed by a foreign ship while voluntarily in port. The distinction is especially important in the case of pollution damage. In this regard, the power to impose sanctions conferred by IMO regulations on the port State (notably in the MARPOL Convention) should be related to the scope and characteristics of those jurisdictional powers as regulated by part XII of UNCLOS.

In general, IMO treaties do not regulate the nature and extent of coastal State jurisdiction. Thus, the degree to which coastal States may enforce IMO regulations in respect of foreign ships in innocent passage in their territorial waters or navigating the exclusive economic zone (EEZ) is a subject to be regulated by UNCLOS. The same principle applies to transit passage in straits used for international navigation or to archipelagic sea lane passage in archipelagic waters. (It should be noted that MARPOL includes provisions on monitoring and investigating illegal discharges of harmful substances into the marine environment.)

In one case, coastal State jurisdiction has been regulated by two IMO instruments: the Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties, 1969, and its Protocol Relating to Intervention on the High Seas in Cases of Pollution by Substances Other than Oil, 1973, are international public law treaties which specifically regulate the right of the coastal State to intervene on the high seas in the case of pollution casualties.
The enforcement of routeing measures adopted at IMO also relies primarily on the exercise of coastal State jurisdiction.

**Maritime zones and the implementation of IMO regulations**

States Parties to IMO treaties are under the obligation to enforce jurisdiction on ships flying their flag, irrespective of the maritime zone where the ships may be. Accordingly, the differences of legal status between the territorial sea, the EEZ and the high seas do not directly influence the way safety and anti-pollution measures on board should be implemented. The proximity of a coast, artificial islands or platforms sometimes modifies such implementation, owing to the different safety and anti-pollution risks existing there rather than the different jurisdictional regimes applicable to the corresponding sea areas.

The existence of maritime zones does become relevant in determining how coastal State jurisdiction should be exercised in connection with the enforcement of routeing measures to be adopted by the Organization. IMO’s general provisions on ships’ routeing should in this regard be interpreted together with the corresponding provisions of UNCLOS. The legal status of the different sea zones has also been taken into account in the four IMO Conventions establishing a regime on civil liability and compensation for oil pollution damage (the Civil Liability Convention, the FUND Convention, the HNS Convention, 1996, and the Bunker Oil Convention, 2001). In these conventions, the entitlement of States Parties to file claims for pollution damage depends on where the damage occurred: whether within their territory, the territorial sea, or within the EEZ.
PART II

RELATIONSHIP BETWEEN UNCLOS AND IMO INSTRUMENTS

This part comprises four chapters which deal with the following subjects:

- Safety of navigation
- Prevention and control of marine pollution
- Liability and compensation
- Technical co-operation and assistance for developing countries.
CHAPTER I - SAFETY OF NAVIGATION

1 GENERAL

Several provisions of UNCLOS set up the jurisdictional framework for the adoption and implementation of safety rules and standards. As mentioned in the introduction, IMO’s global mandate to adopt international regulations in this regard is acknowledged whenever reference is made to the competent organization through which those regulations are adopted.

Enforcement of IMO regulations concerning construction, equipment, seaworthiness and manning of ships relies primarily on the exercise of flag State jurisdiction. Other areas such as signals, communications, prevention of collisions, ships’ routeing, and ship reporting involve the effective exercise of both flag and coastal State jurisdiction. Furthermore, several IMO instruments regulate the degree to which States may enforce corrective measures to ensure that foreign ships voluntarily in port comply with international safety regulations. However, such enforcement is limited to the conditions laid down in the main IMO safety conventions.

UNCLOS establishes the basic features relating to the exercise of flag State jurisdiction in the implementation of safety regulations. It also regulates the extent to which coastal States may legitimately interfere with navigation by foreign ships in different maritime zones for the purpose of ensuring proper compliance with safety regulations.

Flag State jurisdiction

The basic obligations imposed upon the flag State are contained in article 94 of UNCLOS, which requires flag States to take measures for ensuring safety at sea that conform to “generally accepted international regulations, procedures and practices” (article 94(3), (4) and (5)). The following IMO conventions may, on account of their worldwide acceptance, be deemed to fulfil the general acceptance requirement:

- International Convention for the Safety of Life at Sea, 1974 (SOLAS 1974);
- Protocol of 1978 relating to the International Convention for the Safety of Life at Sea, 1974 (SOLAS Protocol 1978);
- International Convention on Load Lines, 1966 (Load Lines 1966);
- International Convention on Tonnage Measurement of Ships, 1969 (TONNAGE 1969);
- Convention on the International Regulations for Preventing Collisions at Sea, 1972 (COLREG 1972);
- International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978 (STCW 1978);
IMO resolution A.847(20) entitled **Guidelines to Assist Flag States in the Implementation of IMO Instruments** provides flag States with a means to establish and maintain measures for the effective application and enforcement of the following IMO Conventions: SOLAS 1974, MARPOL 73/78, Load Lines, and STCW 1978. A subsequent IMO resolution A.912(22), which supersedes and revokes resolution A.881(21), provides guidance to assist flag States in the self-assessment of their performance; Assembly resolution A.914(22) provides guidance on measures to further strengthen flag State implementation. Enforcement of IMO safety and anti-pollution provisions has been strengthened by the incorporation into SOLAS of the International Safe Management Code (ISM), under which companies operating ships are subject to a safe management system under the control of the administration of the flag State.

The basic obligations of the flag State in relation to safety of navigation are found in part VII of UNCLOS dealing with the high seas; here, enforcement of international safety regulations relies exclusively upon the effective exercise of flag State jurisdiction. Enforcement of these regulations continues to rely primarily on the exercise of flag State jurisdiction, irrespective of where the ship is sailing.

IMO’s Sub-Committee on Flag State Implementation (FSI) was set up in 1992 after the Maritime Safety Committee (MSC) recognized an urgent need to improve maritime safety through stricter and more uniform application of existing regulations following accidents such as those to the **Herald of Free Enterprise**, **Scandinavian Star**, **Doña Paz**, and **Exxon Valdez**. Incidents such as those involving the **Erika** and the **Prestige** have reinforced the importance of the Sub-Committee’s activities. Its primary objective is to identify the measures needed to ensure effective and consistent global instruments, including consideration of the special difficulties faced by developing countries. There is agreement in the Sub-Committee that the effectiveness of IMO safety and pollution-prevention instruments depends primarily on the application and enforcement of their requirements by states that are parties to them, and that many had experienced difficulties in complying fully with the provisions of the instruments. To meet the primary objective, the Sub-Committee has been assigned the tasks of identifying the range of flag State obligations emanating from IMO treaty instruments, as well as those areas where flag States have difficulty in fully implementing IMO instruments. The Sub-Committee has also been requested to assess problems relating to actions taken by the states that are parties to IMO instruments in their capacity as port States, coastal States and as countries training and certifying officers and crews.

Since its creation, the FSI Sub-Committee has produced important guidelines and recommendations. Some have been adopted as resolutions by the IMO Assembly, the MSC and the MEPC, others have taken the form of IMO circulars.

**The IMO Model Audit Scheme**

At its twenty-third session held in November 2003 the IMO Assembly adopted, by resolution A.946(23), the Voluntary IMO Member State Audit Scheme. At its 24 session, held in November-December 2004 the Assembly adopted resolution A.974(24) on **Framework and Procedures for the Voluntary IMO Member State Audit Scheme**. Alongside the audit scheme framework and procedures, the Assembly adopted a Code for the Implementation of Mandatory IMO Instruments, which will provide the audit standard.

The objective of the Scheme is to enhance the performance of Member States in implementing the IMO Conventions relating to maritime safety and prevention of marine pollution. In particular, the scheme addresses issues such as compliance with the **Code for the Implementation of Mandatory IMO Instruments**; enactment, administration and enforcement of laws and regulations; delegation of authority; control and monitoring of the execution of statutory
responsibilities; discharge of other obligations and responsibilities by a Member State; capacity building and technical assistance; and the provision of appropriate feedback to the audited Member State and the Organization’s membership at large, and into the work of the Organization. The Assembly has decided that the scheme should be developed in such a manner as not to exclude the future possibility of its becoming mandatory.

A further resolution, on Future development of the Voluntary IMO Member State Audit Scheme, requests the Maritime Safety Committee (MSC) and the Marine Environment Protection Committee (MEPC) to review the future feasibility of including, within the scope of the audit scheme, maritime security-related matters and other functions not presently covered and also to identify any implications of broadening the scope of the audit scheme.

In response to the invitation to the IMO and other relevant competent international organizations in General Assembly resolutions 58/240 and 58/14, an inter-agency report has been prepared by senior representatives of international organizations, convened by IMO, on the role of the “genuine link” and the potential consequences of non-compliance with duties and obligations of flag States described in relevant international instruments. This report was submitted to the General Assembly at its 61st session. In resolution 61/222 (paragraph 73), the General Assembly took note of the report.

Since the commencement of audits in September 2006, 20 audits have been successfully conducted by 48 auditors, who have undertaken a total of 61 individual assignments. A further 16 Member States have formally indicated their readiness to be audited.

In this context, the IMO Assembly at its twenty-fifth session held in November 2007 invited IMO Member States to nominate qualified auditors and encouraged IMO Member States that have not yet volunteered for audits to do so as and when they are ready and as early as possible. In its resolution 62/215 of 22 December 2007, the General Assembly welcomed the audits that have been completed pursuant to the Voluntary IMO Member State Audit Scheme and the Code for the Implementation of Mandatory IMO Instruments, and encouraged all flag States to volunteer to be audited.

Coastal State jurisdiction

IMO treaty instruments do not attempt to regulate the jurisdictional power of the coastal State. This is a subject exclusively within the scope of UNCLOS. This Convention provides the enforcement framework for IMO instruments by establishing the degree to which coastal States may legitimately interfere with foreign ships in order to ensure compliance with IMO rules and standards.

Against this background, the following provisions of UNCLOS are relevant to the enforcement of IMO standards by coastal States:

- In its territorial sea, the coastal State may enact laws and regulations relating to innocent passage (article 21(1)), particularly with respect to safety of navigation and the regulation of maritime traffic (article 21(1)(a)). These laws and regulations must conform with the provisions of the Convention and “other rules of international law”. The adoption of the IMO conventions referred to above and their consequent incorporation into national legislation entitles coastal States to request that foreign ships in innocent passage through their territorial sea comply with the rules of these conventions, even if the flag State is not party to the relevant instrument.
Pursuant to article 41(3), the sea lanes and traffic separation schemes which States bordering straits may designate or prescribe must conform to “generally accepted international regulations”. On account of their wide acceptance, SOLAS, the General Provisions on Ships’ Routeing and COLREG, should be considered as representing the “generally accepted international regulations”. As in the case of the territorial sea, foreign ships must comply with the laws and regulations which States bordering straits adopt, including those relating to safety and the prevention, reduction and control of pollution (article 42), even if their flag States are not bound by the treaties containing these regulations. Furthermore, in order to protect bordering States’ interests, UNCLOS has imposed on foreign ships in transit passage the obligation to comply with “generally accepted international regulations, procedures and practices for safety at sea, including the International Regulations for Preventing Collisions at Sea” (article 39(2)(a)). This expression seems to have a wider connotation in that it may cover also non-binding instruments. (It should also be noted that elements of search and rescue are encompassed within the terms of article 39.)

In accordance with article 35(c), the provisions in the Convention concerning straits used for international navigation (part III) do not affect the legal regime in straits in which passage is regulated by the related long-standing international conventions in force and specifically relating to such straits. These conventions should, however, be implemented with reference to the criteria of compatibility established in article 311 of UNCLOS and referred to in the introductory part of this document.

Article 54 of UNCLOS extends the application of the provisions of articles 39, 40, 42 and 44 on transit passage to archipelagic sea lanes passage.

In accordance with article 58(2), the regime of the high seas applies in principle to the EEZ. As will be explained below, coastal States may adopt jurisdictional measures in connection with the implementation of routeing measures.

(See below for further relevant discussion under section 5 on “Ships’ Routeing” and section 6 on “Ship Reporting”.)

**Port State jurisdiction**

By contrast to the situation with coastal State jurisdiction, the most important IMO conventions include provisions which regulate the features of port State jurisdiction and the extent to which such jurisdiction should be exercised. It should be noted that, within the context of the implementation of IMO instruments, port State jurisdiction is a concept of an essentially corrective kind: it aims to correct non-compliance or ineffective flag State enforcement of IMO regulations by foreign ships voluntarily in port.

The exercise of port State jurisdiction for the purpose of correcting deficiencies in the implementation of safety rules is established in the main IMO safety conventions, namely, Load Lines 1966, TONNAGE 1969, SOLAS 1974, SOLAS Protocol 1978 and STCW 1978. These treaties regulate the right of the port State to verify the contents of certificates issued by the flag State attesting compliance with safety provisions. They also entitle the port State to inspect the ship if the certificates are not in order or if there are clear grounds to believe that the condition of the ship or of its equipment does not correspond substantially with the particulars of the certificates or if they are not properly maintained. SOLAS provides that the port State may check operational

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requirements when there are clear grounds for believing that the master or the crew is not familiar with essential shipboard procedure relating to the safety of the ship or procedures set out in the ship’s safety management system.

STCW regulates the control of certificates by the authorities of port States that are parties to that Convention, in order to ensure that seafarers serving on board are competent in accordance with the Convention. Measures similar to those referred to in Load Lines and SOLAS can be taken when there are clear grounds to believe that a certificate has been fraudulently obtained, or its holder has not been trained in accordance with the provisions of the Convention, or the ship is being operated in such a manner as to pose a danger to persons, property or the environment.

IMO Assembly resolution A.882(21) on Procedures for Port State Control contains a comprehensive set of guidelines on port State control inspections, identification of contraventions and detention of ships. The procedures apply to ships which come under the provisions of SOLAS, Load Lines, STCW, TONNAGE and MARPOL. The resolution also addresses special port State control issues relating to the ISM Code requirements.

2 CONSTRUCTION, EQUIPMENT AND SEAWORTHINESS OF SHIPS

Article 94(3)(a) of UNCLOS imposes upon flag States the obligation to ensure safety at sea on the high seas with regard to the construction, equipment and seaworthiness of ships. A further specification in relation to this obligation is provided in paragraph 4(a) of the same article, which indicates that measures to be taken by flag States must include those necessary to ensure “that each ship, before registration and thereafter at appropriate intervals, is surveyed by a qualified surveyor of ships, and has on board such charts, nautical publications and navigational equipment and instruments as are appropriate for the safe navigation of the ship”. Paragraph 5 provides that in taking such measures “each State is required to conform to generally accepted international regulations, procedures and practices and to take any steps which may be necessary to secure their observance”. This obligation also applies to the EEZ (article 58(2)). Article 217(2) of UNCLOS extends the scope of article 94(3) to the protection of the marine environment. It requires the flag State to ensure that its vessels are prohibited from sailing until they can proceed to sea in compliance with the requirements of international rules and standards with regard to design, construction and equipment of vessels.

UNCLOS provides in its article 21(2) that the coastal State must not impose on foreign ships in innocent passage through its territorial sea laws and regulations applicable to the design, construction, and equipment of foreign ships “unless they are giving effect to generally accepted international rules or standards”. This provision is of paramount importance for the implementation of IMO treaty instruments containing such rules and standards, because it sets a clear limit to the jurisdictional powers of the coastal State. Regulations imposing either additional or more stringent requirements than those regulated in such instruments could potentially violate the rules of innocent passage regulated by UNCLOS. Article 211(6)(c) provides that the additional laws and regulations which the coastal State can adopt for special areas in the EEZ must not require foreign vessels to observe design, construction or equipment standards other than generally accepted international rules and standards.

The generally accepted international regulations, procedures and practices referred to in article 94(5) and the generally accepted international rules and/or standards referred to in article 21(2) are basically contained in the SOLAS and Load Lines Conventions. These rules and standards, together with the anti-pollution rules and standards contained in MARPOL (see chapter II below) are also referred to in articles 211(6)(c), 217(2), and 219.
SOLAS 1974 and the SOLAS Protocol of 1978 regulate minimum standards for the construction, equipment and operation of ships, in regard to aspects such as subdivision and stability, machinery and electrical installations, fire protection, detection and extinction, life-saving appliances and arrangements and radiocommunication. The regulations provide for surveys of various types of ship (oil carriers, gas and chemical tankers, passenger ships, ro-ro ferries, etc.), the issue of documents certifying that the ships meet the required conditions, and the obligation to carry adequate equipment and nautical publications.

Load Lines 1966 determines the minimum freeboard to which a ship may be loaded, including the freeboard of tankers, taking into account the potential hazards present in different climate zones and seasons.

Construction and equipment requirements for the safety of fishing vessels are contained in the 1977 Torremolinos Convention as amended by the 1993 Torremolinos Protocol. Neither the Convention nor its Protocol has entered into force.

The Assembly, at its twenty-fifth session, adopted resolution A.1003(25) on the entry into force and implementation of the 1993 Torremolinos Protocol, which reiterates the need for Governments to consider ratifying, accepting, approving or acceding to the Torremolinos Protocol at the earliest possible opportunity, so that this international Convention covering fishing vessel safety can enter into force. The IMO Assembly remains convinced that the entry into force of the Torremolinos Protocol would make a significant contribution to maritime safety in general (and that of fishing vessels in particular) and also that the continuing and alarmingly high number of fishermen's lives and of fishing vessels reportedly lost every year could be substantially reduced by the global, uniform and effective implementation of the Protocol.

To that end, the Assembly endorsed the decision of the MSC at its eighty-third session, to explore further the legal and technical options to facilitate and expedite the Protocol's entry into force, which were previously recommended by the Joint FAO/IMO Ad Hoc Working Group on Illegal, Unregulated and Unreported Fishing and Related Matters.

The IMO Assembly, at its twenty-third session, held in November 2003 decided to include the development of goal-based new ship construction standards (“GBS”) in the IMO Strategic Plan to determine new hull construction standards for new ships which are currently largely under the responsibility of classification societies. The standards, once finalized, are intended to ensure that hull standards developed by classifications societies and other recognized organizations conform to the safety goals and functional requirements established by IMO.

Detailed technical work was initiated by the MSC at its seventy-eighth session, held in May 2004, and it was agreed to focus initially on the development of GBS for bulk carriers and oil tankers. The MSC at its 82nd session held in December 2006 progressed its work on the development of GBS for bulk carriers and oil tankers following a five-tier system agreed at the beginning of the work. The MSC has so far approved, in principle, goals (Tier I) and functional requirements (Tier II) for bulk carriers and oil tankers and significantly progressed the development of guidelines for the verification of compliance (Tier III) for bulk carriers and oil tankers with the help of a pilot project on trial application of the Tier III verification process, which started in January 2007 and is still ongoing.

In addition to these conventions, IMO has adopted numerous recommendations, guidelines, and codes concerning the construction, equipment, and seaworthiness of ships. As stated above, while not legally binding, some of these regulations have been widely implemented by the Member States.
"Black box" carriage requirements

Like the black boxes carried on aircraft, Voyage Data Recorders (VDRs) fitted in ships enable accident investigators to review the procedures and instructions pertaining at the moment before an incident and to help identify the cause of any accident. The regulations on VDRs are contained in the revised chapter V (Safety of Navigation) of SOLAS. These regulations require passenger ships and ships other than passenger ships of 3,000 gross tonnage and upwards built on or after 1 July 2002 to be fitted with VDRs. Amendments to chapter V adopted by the MSC in December 2004 require ships constructed before 1 July 2002 to be fitted with a Simplified VDR.

MSC, at its eighty-first session, adopted amendments to resolution A.861(20) on Performance standards for shipborne voyage data recorders and resolution MSC.163(78)) on Performance standards for shipborne simplified voyage data recorders (S-VDRs).

AIS

The revised chapter V also makes it mandatory for certain ships to carry an automatic identification system (AIS). Regulation 19 of the chapter V of SOLAS – Carriage requirements for shipborne navigational systems and equipment – sets out navigational equipment to be carried on board ships, according to ship type. Under this regulation, an AIS should be capable of providing information about the ship automatically to other ships and to coastal authorities.

The same regulation requires an AIS to be fitted aboard all ships of 300 gross tonnage and upwards engaged on international voyages, cargo ships of 500 gross tonnage and upwards not engaged on international voyages and passenger ships irrespective of size built on or after 1 July 2002. It also applies to ships engaged on international voyages constructed before 1 July 2002, according to the following timetable:

- passenger ships, not later than 1 July 2003;
- tankers, not later than the first survey for safety equipment on or after 1 July 2003;
- ships other than passenger ships and tankers, of 50,000 gross tonnage and upwards, not later than 1 July 2004;
- ships other than passenger ships and tankers, of 10,000 gross tonnage and upwards but less than 50,000 gross tonnage, not later than 1 July 2005;
- ships other than passenger ships and tankers, of 3,000 gross tonnage and upwards but less than 10,000 gross tonnage, not later than 1 July 2006; and
- ships other than passenger ships and tankers, of 300 gross tonnage and upwards but less than 3,000 gross tonnage, not later than 1 July 2007.

Ships not engaged on international voyages constructed before 1 July 2002, will have to fit an AIS not later than 1 July 2008. A flag State may exempt ships from carrying an AIS if they are to be taken permanently out of service within two years after the implementation date.
LRIT

The MSC, at its eighty-first session, in 2006 adopted regulation V/19-1 on the Long Range Identification and Tracking of Ships (LRIT) to SOLAS chapter V on Safety of Navigation, together with associated performance standards and functional requirements.

The new regulation is included in SOLAS chapter V on Safety of Navigation. It provides for the introduction of a mandatory requirement for the following ships on international voyages: passenger ships, including high-speed craft; cargo ships, including high-speed craft, of 300 gross tonnage and upwards; and mobile offshore drilling units. The regulation establishes a multilateral agreement for sharing LRIT information for security and search and rescue purposes, amongst SOLAS Contracting Governments, in order to meet the maritime security needs and other concerns of such Governments. It maintains the right of flag States to protect information about the ships entitled to fly their flag, where appropriate, while allowing coastal States access to information about ships navigating off their coasts. The SOLAS regulation on LRIT does not create or affirm any new rights of States over ships beyond those existing in international law, particularly, UNCLOS, nor does it alter or affect the rights, jurisdiction, duties and obligations of States set out in UNCLOS.

Under the new system, ships will be required to transmit the ship’s identity, location and date and time of position. There will be no interface between LRIT and AIS. One of the more important distinctions between LRIT and AIS, apart from the obvious one of range, is that, whereas AIS is a broadcast system, data derived through LRIT will be available only to the recipients who are entitled to receive such information. Further, safeguards concerning the confidentiality of those data have been built into the regulatory provisions. SOLAS Contracting Governments will be entitled to receive information about ships navigating within a distance not exceeding 1,000 nautical miles off their coast.

The MSC also adopted Performance standards and functional requirements for LRIT and an MSC resolution on Arrangements for the timely establishment of the long-range identification and tracking system.

The MSC, at its eighty-second session, agreed to develop the draft technical specifications; update the required technical documents; prepare a technical costing and billing standard for LRIT; consider technical issues and develop technical criteria to be taken into account when establishing the International LRIT Data Centre and the International LRIT Data Exchange; liaise with the IMO Secretariat regarding consistency, security and other aspects of the Data Distribution Plan with the technical specifications; and ensure that the testing documents completely address the Performance Standards.

The MSC, at its eighty-third session, accepted the contingency offer of the United States to host, build and operate, on an interim and temporary basis, the International LRIT Data Exchange (IDE), agreeing that a permanent home should be found for the IDE as soon as possible (within two years from 1 January 2008, subject to a further review by the Committee). An MSC resolution on Establishment of the IDE on an interim basis was adopted.

The LRIT system will consist of the shipborne LRIT information transmitting equipment, the Communication Service Provider(s), the Application Service Provider(s), the LRIT Data Centre(s), including any related Vessel Monitoring System(s), the LRIT Data Distribution Plan and the IDE. The LRIT Data Centres communicate with each other and exchange information and data though the IDE and thus the IDE has a key and pivotal role in the establishment and functioning of the system.
LRIT information will be provided to Contracting Governments and search and rescue services entitled to receive the information, upon request, through a system of National, Regional, Co-operative and International LRIT Data Centres, using where necessary, the IDE.

The establishment of the interim IDE will allow the LRIT system to be launched on schedule with multiple LRIT Data Centres operating and joined through the IDE.

The MSC, as a result of the work done in relation to various technical aspects of the LRIT system adopted an MSC resolution on Amendments to the Performance Standards and functional requirements of Long-Range Identification for Tracking for Ships.

The MSC adopted a resolution on the Use of Long-range Identification and Tracking Information for Safety and Environmental Purposes, which notes that use of LRIT information for safety and marine environment protection purposes would add significant value to existing systems by improving knowledge of ships' positions and identity. The resolution states that MSC agrees that Contracting Governments may request, receive and use LRIT information for these purposes.

Carriage requirements for shipborne navigational systems and equipment

Regulation V/19 also provides that an electronic chart display and information system (ECDIS) may be accepted as meeting its chart carriage requirements. The regulation requires all ships, irrespective of size, to carry nautical charts and nautical publications enabling them to plan and display the intended route and to plot and monitor positions throughout the voyage. The ship must also carry back-up arrangements if electronic charts are used either fully or partially.

High-Speed Craft Code 2000

The new International Code for High Speed Craft, 2000 entered into force on 1 July 2002. The Code is mandatory under SOLAS chapter X (Safety measures for high-speed craft). The original HSC Code was adopted by IMO in May 1994, but the rapid pace of development in this sector of shipping required an early revision of the Code. The original Code will continue to apply to existing high-speed craft, while the new text will apply to all HSC built on or after the date of entry into force. The changes incorporated in the new Code are intended to bring it into line with amendments to SOLAS and new recommendations that have been adopted in the past few years – for example, requirements covering public address systems and helicopter pick-up areas. Consequential amendments to SOLAS chapter X (Safety measures for high-speed craft) that refer to the new Code were also adopted.


SOLAS chapter II-2 includes requirements applicable to all or specified ship types. The same chapter makes mandatory the Fire Safety Systems (FSS) Code, which includes detailed specifications for fire safety systems.

Prohibition of installation of materials containing asbestos

SOLAS chapter II-1 (Construction – Structure, subdivision and stability, machinery and electrical installations) prohibits the installation of materials containing asbestos on all ships. The regulation states that for all ships, new installation of materials which contain asbestos is prohibited, except for vanes used in rotary vane compressors and rotary vane vacuum pumps, watertight joints and linings used for fluid circulation when at high temperature or pressure there is
a risk of fire, corrosion or toxicity, and for supple and flexible thermal insulation assemblies used at temperatures above 1000°C.

**Elimination of sub-standard oil tankers**

An MSC working group has developed a proposed list of measures designed to eliminate sub-standard ships, which the MSC has agreed to refer to the Organization’s sub-committees and to the Marine Environment Protection Committee (MEPC) for general consideration. A revised accelerated phase-out scheme for single-hull tankers, was adopted by MEPC at its 50th session.

**Ships operating in ice-covered waters**

The MSC, at its seventy-seventh session (2 to 13 December 2002), and the MEPC at its 48th session (7 to 11 October 2002), recognizing the need for recommendatory provisions applicable to ships operating in Arctic ice-covered waters in addition to the mandatory and recommendatory provisions contained in other IMO documents, approved guidelines for ships operating in Arctic ice-covered waters, which are set out in MSC/Circ.1056.

**3 MANNING OF SHIPS AND TRAINING OF CREWS**

As in the case of construction and equipment, UNCLOS provides in article 94(3)(b) that every State must take the necessary measures to ensure safety at sea with regard to “the manning of ships, labour conditions and the training of crews, taking into account the applicable international instruments”. Paragraph 4(b) specifies that such measures must ensure “that each ship is in the charge of a master and officers who possess appropriate qualifications, in particular in seamanship, navigation, communications and marine engineering, and that the crew is appropriate in qualification and numbers for the type, size, machinery and equipment of the ship”. Paragraph 4(c) further requires “that the master, officers and, to the extent appropriate, the crew are fully conversant with and required to observe the applicable international regulations concerning the safety of life at sea, the prevention of collisions, the prevention, reduction and control of marine pollution, and the maintenance of communications by radio”. Also in connection with these matters, paragraph 5 states that “each State is required to conform to generally accepted international regulations, procedures and practices and to take any steps which may be necessary to secure their observance”. Article 217(2) of UNCLOS extends the scope of article 94(3) to protection of the marine environment. It requires the flag State to ensure that its vessels are prohibited from sailing until they can proceed to sea in compliance with the international rules and standards with regard to manning.

Article 21(2) also provides that the coastal State cannot impose on foreign ships in innocent passage in its territorial sea the laws and regulations applicable to manning “unless they are giving effect to generally acceptable international rules or standards”. Article 211(6)(c) provides that the additional laws and regulations which the coastal State may adopt for special areas in the EEZ must not require foreign vessels to observe manning standards other than generally accepted international rules and standards.

SOLAS 1974 imposes a general obligation on flag States to ensure, for the purpose of safety of life at sea, the appropriate manning of the ship. Thus, ships must be provided with an appropriate certificate as evidence of the minimum required safe manning (see regulation V/14).
STCW 1978, as amended, contains a comprehensive set of international regulations with regard to training and certification of personnel. This Convention establishes minimum requirements for training, qualifications and seagoing service for masters and officers and for certain categories of ratings, such as those forming part of a navigational watch or engine-room watch on oil, chemical or liquefied gas tankers and passenger ships.

STCW 1978 was revised at the Conference of States Parties held in 1995. The amendments adopted on that occasion addressed the concerns that the STCW Convention was not being uniformly applied and did not impose any strict obligations on Parties regarding implementation; they also generally brought the STCW Convention up to date. One of the major features of the revision involved the adoption of a new STCW Code to which the whole content of the technical regulations was transferred. Part A of the Code is mandatory, while part B is recommendatory. Further, enhanced procedures concerning the exercise of port State control under article X of the STCW 1978 Convention were developed. In addition, the Conference amended chapter I of the STCW Convention, entitled “General Provisions”. Accordingly, States Parties must provide information to IMO concerning the implementation of the Convention’s requirements. The Maritime Safety Committee of IMO (MSC) uses this information to identify Parties that are able to demonstrate that they have given full and complete effect to the Convention (i.e. the so-called IMO White List which was first issued by the MSC at its seventy-third session in December 2000 and supplemented at its seventy-fourth session in May 2001). The publication of this list marks the end of the first stage of a ground-breaking verification procedure in which, for the first time, IMO has been given a direct role in the implementation of one of its instruments. Finally, the amendments also provide for special conditions for the training and qualifications of personnel on board ro-ro passenger ships. The STCW Convention was further amended in 1997 to add training requirements for personnel on passenger ships other than ro-ro passenger ships, and in 1998 to add a requirement for masters and deck officers to be capable of detecting damage and corrosion in cargo spaces and ballast tanks.

A separate conference running concurrently with the 1995 STCW Conference adopted a new International Convention on Standards of Training, Certification and Watchkeeping for Fishing Vessel Personnel. This Convention represents the first attempt to make safety standards mandatory for the crews of fishing vessels.

In November 1999, the IMO Assembly adopted resolution A.892(21) on Unlawful Practices Associated with Certificates of Competency and Endorsements. This resolution was intended to highlight the problem of fraudulent certificates issued in relation to the STCW Convention, and to encourage Member States to take action to eliminate the circulation of such certificates. Research was conducted on behalf of IMO to assess the scope of the problem and to identify possible solutions. The results of this research were brought to the attention of the MSC and considered in more detail by the Sub-Committee on Standards of Training and Watchkeeping (STW). In January 2002, the Sub-Committee developed a list of actions to be undertaken by the Secretariat on unlawful practices associated with certificates of competence. In 2004, the Sub-Committee completed all the actions identified by the Sub-Committee. However, it has still to develop a harmonized format for ancillary certificates providing evidence leading to the award of the certificate of competence. Furthermore, it has yet to develop appropriate anti-fraud training for the personnel responsible for verification based on the established standards for anti-fraud guidelines.

Also in November 1999, the IMO Assembly adopted a new resolution A.890(21) on Principles of Safe Manning, which updates and supersedes the resolution on the same subject from 1981 (resolution A.481(XII)). The new resolution is intended to take into account recent developments in the shipping industry, including increased reliance on automated systems and
labour-saving devices, and the concern regarding fatigue and other human-element aspects of crew performance. The resolution includes basic principles to be applied in considering the manning levels necessary for safe operation of the ship.

Each ship should be issued with a “minimum safe manning document”, specifying the minimum safe manning levels for that particular ship. The document can then be produced for inspection during port State control.

The resolution includes detailed guidelines for the application of safe manning principles and guidance on the contents of the minimum safe manning document, as well as a model format. Annex I on Principles on Manning and Annex II on Guidelines for the Application of Principles on Manning were amended by Assembly resolution A.955(23).

The MSC, at its 81st session, in 2006 adopted amendments to Part A of the STCW Code. The amendments add new minimum mandatory training and certification requirements for persons to be designated as ship security officers (SSOs). The amendments to the STCW Convention and to parts A and B of the STCW Code include Requirements for the issue of certificates of proficiency for Ship Security Officers; Specifications of minimum standards of proficiency for ship security officers; and Guidance regarding training for Ship Security Officers.

Further amendments to part A of the STCW Code add additional training requirements for the launching and recovery of fast rescue boats. The amendments have been prepared in response to reports of injuries to seafarers in numerous incidents involving the launching and recovery of fast rescue boats in adverse weather conditions. The STCW amendments entered into force on 1 January 2008.

Bearing in mind that more than 10 years had elapsed since its last major revision, the MSC, in 2007, agreed to undertake a comprehensive review of the STCW Convention so as to take into account new and innovative training methodologies, including the use of simulators for training, e-learning, and training related to cargoes of liquefied natural gas, liquefied petroleum gas, oil and chemicals carried by tankers, to ensure that it meets the new challenges facing the shipping industry today and in the years to come. The review is expected to be completed in 2010.

4 SIGNALS, COMMUNICATIONS AND PREVENTION OF COLLISIONS

To ensure safety on the high seas and in the EEZ, the flag State, in its exercise of jurisdiction, must take appropriate measures regarding “the use of signals, the maintenance of communications and the prevention of collisions” (articles 94(3)(c) and 58(2)). These measures must conform to “generally accepted international regulations, procedures and practices”, and each State is required to take the necessary steps to secure their observance (article 94(5)). A broad range of standards concerning signals, communications and prevention of collisions has been developed by the MSC and approved by the relevant bodies within the framework of treaty instruments or recommendations. The following paragraphs refer to the provisions of IMO instruments which relate to the subject matter mentioned in article 94(3)(c) of UNCLOS.

Rules on signals

Rules and regulations on signals are found in SOLAS 1974 and COLREG 1972. Under SOLAS regulation V/21, all ships required to carry radio installations shall carry the International Code of Signals. Any other ship which, in the opinion of the Administration, has a need to use it, shall carry it as well. This Code was adopted by the fourth session of the IMO Assembly in 1965, and has since been amended by the MSC on a number of occasions.
Regulations on communications

Rules on communications for safety purposes are contained in chapter IV of SOLAS 1974, which deals with the provision of radiocommunication services by Contracting Governments and provides for the keeping of equipment on board ships for distress and safety purposes as well as for general radiocommunications. The specific technical requirements of radio equipment used for these purposes are defined in the Radio Regulations of the International Telecommunication Union. As a result of amendments to Chapter IV which were adopted in 1988, with a phase-in period to 1999, the Global Maritime Distress and Safety System (GMDSS) became fully effective on 1 February 1999. GMDSS is a worldwide satellite-based network of automated emergency communications for ships at sea. (In part, GMDSS provides for the implementation of article 39(3) of UNCLOS, since one of the key components of this system is the use of international distress radio frequencies by ships, aircraft, and shore-based rescue co-ordination centres.)

MSC, at its eighty-third session in 2007, adopted an amendment to SOLAS chapter IV, to add a new regulation 4-1 on Global Maritime Distress and Safety System (GMDSS) satellite providers. The new regulation provides for the MSC to determine the criteria, procedures and arrangements for the evaluation, recognition, review and oversight of the provision of mobile satellite communication services in the GMDSS. The amendment is expected to enter into force on 1 July 2009.

The MSC also had approved the related draft revised Criteria for the provision of mobile-satellite communication systems in the GMDSS which was adopted by the IMO Assembly at its twenty-fifth session in 2007.

Rules on communications are also contained in chapter V of SOLAS, as amended, particularly in regulations 31 and 32 concerning danger messages and in regulation V/9 concerning meteorological services.

At its twenty-second session in November 2001, the Assembly adopted resolution A.918(22) on Standard Marine Communication Phrases.

Regulations for the prevention of collisions at sea

Regulations for the prevention of collisions at sea are found in COLREG 1972, which deals with steering and sailing rules, lights and shapes, and sound and light signals. COLREG also regulates the behaviour of ships operating in or near traffic separation schemes. Within the general framework established by the provisions of UNCLOS, COLREG applies to the high seas, the EEZ, the territorial sea, archipelagic waters, straits used for international navigation and archipelagic sea lanes. Rule 1(a) of COLREG provides that the rules apply to “all vessels upon the high seas and in all waters connected therewith navigable by seagoing vessels”.

At its twenty-second session, the Assembly adopted resolution A.910(22) by which it adopted amendments to COLREG. The amendments concern:

- whistles and sound signals (Rules 33 and 35);
- action to avoid collision (Rule 8(a)) – to make it clear that any action to avoid collision should be taken in accordance with the relevant rules in the COLREGs;
• amendments with respect to high-speed craft (relating to the vertical separation of masthead lights); and
• amendments in relation to Wing-In-Ground (WIG) craft, including a rule that WIG craft should keep well clear of all other vessels and another rule that WIG craft should exhibit a high-intensity all-round flashing red light when taking off, landing and in-flight near the surface.

UNCLOS requires foreign ships to comply with these regulations while navigating in the territorial sea, in straits used for international navigation, and in archipelagic waters. In this regard the Convention provides that “generally accepted international regulations relating to the prevention of collisions at sea” shall also apply to foreign ships exercising the right of innocent passage through the territorial sea and archipelagic waters (articles 21(4) and 52(1)). In accordance with article 39(2)(a) and article 54, ships exercising the right of transit passage in straits used for international navigation or the right of archipelagic sea lanes passage must comply with the International Regulations for Preventing Collisions at Sea.

5 SHIPS’ ROUTEING

Territorial sea

In accordance with UNCLOS, article 22, the coastal State may:

- designate sea lanes and prescribe traffic separation schemes to regulate the innocent passage of ships through its territorial sea, where necessary having regard to the safety of navigation (article 22(1));

- require tankers, nuclear powered ships and ships carrying nuclear or other inherently dangerous or noxious substances or materials to confine their passage to such sea lanes (article 22(2)).

In accordance with article 22(3)(a), coastal States must, in the designation of sea lanes and the prescription of traffic separation schemes, “take into account”, inter alia, “the recommendations of the competent international organization” (IMO). In the case of sea lanes, the relevant IMO provisions are contained in SOLAS regulation V/8, amended in 1995, and the IMO General Provisions on Ships’ Routeing adopted by resolution A.572(14) of the IMO Assembly. Provisions on traffic separation schemes (TSS) are contained in COLREG, rules 1(d) and 10. (In November 1997, the IMO Assembly adopted resolution A.858(20) by which it delegated to the MSC the function of adopting traffic separation schemes and routeing measures other than traffic separation schemes, including the designation and substitution of archipelagic sea lanes.)

SOLAS regulation V/8(j) (see V/10 in the text as amended by MSC in 2000) states that “all adopted ships’ routeing systems and actions taken to enforce compliance with those systems shall be consistent with international law, including the relevant provisions of the 1982 United Nations Convention on the Law of the Sea”. Bearing in mind the terms of article 22(3)(a) of UNCLOS, regulation V/8 establishes that ships’ routeing systems “are recommended for use by, and may be made mandatory for, all ships, certain categories of ships or ships carrying certain cargoes, when adopted and implemented in accordance with the guidelines and criteria developed by the Organization” (IMO). These provisions of UNCLOS and SOLAS and the classes of ships referred
to in article 22(2) of UNCLOS are relevant in connection with the work undertaken by IMO and
the International Atomic Energy Agency (IAEA) to review the conditions of transport by sea of
radioactive material from a safety point of view.

Paragraph (d) of regulation V/8 (see V/10 in the text as amended by MSC 73 in 2000)
acknowledges that the initiation of action for establishing a ships’ routeing system is the
responsibility of the government(s) concerned, which should take into account the guidelines and
criteria developed by IMO.

Rules 1(d) and 10 of COLREG define, respectively, the competence of IMO to adopt TSS
and the main technical regulations to be followed in this regard. These regulations effectively
institute restrictions on navigation in order to ensure safety.

The IMO General Provisions on Ships’ Routeing contain conditions for the adoption of
routeing measures applicable not only to the territorial sea but also to the EEZ, straits and
archipelagic waters. In accordance with paragraph 3.4 of the Guidelines,

“IIMO shall not adopt or amend any routeing system without the agreement of the interested
coastal State, where that system may affect:

1 their rights and practices in respect of the exploitation of living and mineral
resources;

2 the environment, traffic pattern or established routeing systems in the waters
concerned;

3 demands for improvements or adjustments in the navigational aids or hydrographic
surveys in the waters concerned.”

In direct reference to the case of a territorial sea (paragraphs 3.14 to 3.16), paragraph 3.16
recommends that Governments establishing routeing systems, “no parts of which lie beyond their
territorial seas (3.14), should design them in accordance with the criteria established by IMO and
submit them to IMO for adoption. Paragraphs 3.15 and 3.16 apply to cases where, for whatever
reason”, a Government decides not to submit a routeing system to IMO. In such cases
Governments should, in promulgating the routeing system to mariners, ensure that there are clear
indications on charts and in nautical publications as to what rules apply. Article 22(4) of UNCLOS
obliges coastal States clearly to indicate sea lanes and traffic separation schemes on charts to which
due publicity must be given.

Straits used for international navigation

In the same way as the coastal State has authority within the territorial sea, States bordering
straits are entitled to designate sea lanes and traffic separation schemes or, as appropriate, substitute
them in order to promote the safe passage of ships in straits used for international navigation
(article 41(1) and (2)). Whereas, in the case of the territorial sea, coastal States are simply required
to “take into account” the recommendations of IMO, the implementation of these regulations is
made mandatory in the case of States bordering straits. In accordance with the Convention, sea
lanes and traffic separation schemes in straits used for international navigation “shall conform to
generally accepted international regulations” (article 41(3)). The IMO regulations to be considered
in this regard are contained in SOLAS (regulation V/8), for routeing measures other than TSS,
COLREG 1972 (rules 1(d) and 10), for TSS, and the IMO General Provisions on Ships’ Routeing
contained in resolution A.572(14), as amended.
UNCLOS further establishes that States bordering straits must present the proposals for the designation of sea lanes and the prescription of TSS, and their substitution, to the competent international organization (IMO) with a view to their adoption (article 41(4)). States bordering straits may enforce TSS and regulations establishing sea lanes only after they have been formally adopted by IMO. However, IMO is empowered to adopt them only if agreed with the States concerned (article 41(4)). Sea lanes and TSS established under article 41 are mandatory for ships in transit passage (article 41(7)).

Article 35(c) of UNCLOS establishes that its provisions on straits used for international navigation do not affect “the legal regime in straits in which passage is regulated in whole or in part by long-standing international conventions in force specifically relating to such straits”. This provision should be borne in mind in connection with paragraph (k) of SOLAS regulation V/8:

“Nothing in this regulation nor its associated guidelines and criteria shall prejudice the rights and duties of Governments under international law or the legal regime of international straits.”

With respect to sea lanes and traffic separation schemes through the waters of two or more States bordering straits, the States concerned are required to co-operate in formulating proposals in consultation with “the competent international organization” (IMO) (article 41(5)). SOLAS regulation V/8(f) requires States to formulate joint proposals on the basis of an agreement between them which would be disseminated to the Governments concerned. It is also worth emphasizing that in the case of straits which are excluded from the regime of transit passage by virtue of article 38 of UNCLOS, or straits which lie between a part of the high seas or an EEZ and the territorial sea of a foreign State, the regime of innocent passage applies (article 45).

Archipelagic waters

Several paragraphs in article 53 of UNCLOS regulate the right of archipelagic States to establish sea lanes and TSS, and refer to the role of IMO in this connection:

- Archipelagic States may designate sea lanes suitable for the continuous and expeditious passage of foreign ships through their archipelagic waters and the adjacent territorial sea, and prescribe traffic separation schemes for the purpose of safety of navigation through narrow channels in such sea lanes (paragraphs 1 and 6).

- As in the case of transit passage in straits used for international navigation, sea lanes and TSS within archipelagic waters must conform to “generally accepted international regulations” (paragraph 8).

- Archipelagic States must submit the proposals – including those for substituting sea lanes and TSS – to the “competent international organization” (IMO) for adoption. Proposals may be adopted by IMO only upon agreement with the archipelagic State concerned. Only after adoption by IMO may sea lanes or TSS be designated, prescribed or substituted (paragraph 9).

- Clear indication of the sea lanes and TSS must be provided on charts, to which due publicity must be given (paragraph 10).

- Established sea lanes and traffic separation schemes must be respected by ships during passage through archipelagic sea lanes (paragraph 11).
In November 1997, the IMO Assembly adopted resolution A.858(20) by which it delegated to the MSC the function of adopting traffic separation schemes, and routeing measures other than traffic separation schemes, including the designation and substitution of archipelagic sea lanes. In 1998, the MSC adopted a partial system of archipelagic sea lanes based on a proposal by Indonesia (SN/Circ.200).

EEZ

UNCLOS has no provisions concerning the designation of sea lanes and TSS for the purpose of safety of navigation in the EEZ or on the high seas. Nevertheless, bearing in mind IMO’s global mandate, the IMO General Provisions on Ships’ Routeing (resolution A.572(14)) contain provisions which can be applied for the adoption of routeing measures beyond the territorial sea. In accordance with paragraph 3.8 a Government proposing a new routeing system or an amendment to an adopted routeing system “any part of which lies beyond its territorial sea should consult IMO so that such system may be adopted or amended by IMO for international use”. This provision furthermore recommends that the interested Government should provide all relevant information including, as appropriate, the following additional information:

1. the reasons for excluding certain ships or classes of ship from using a routeing system or any part thereof;

2. any alternative routeing measures, if necessary, for ships or certain classes of ship which may be excluded from using a routeing system or parts thereof.

The General Provisions further establish that such a system, when adopted “shall not be amended or suspended before consultation with and agreement by IMO, unless local conditions and the urgency of the case require that earlier action be taken”.

Bearing in mind the recommendation in paragraph 3.8 of the General Provisions that proposals for routeing measures beyond the territorial sea should be adopted by IMO, any safety zone established in accordance with article 60(5) of UNCLOS which exceeds 500 metres must be submitted to IMO for adoption.

6 SHIP REPORTING

General principles for ship reporting systems and ship reporting requirements are contained in IMO resolution A.851(20). IMO resolution A.857(20) contains guidelines for establishing vessel traffic services, including guidelines on recruitment, qualifications and training of VTS operators.

During 1992 and 1993 the Legal Committee and an ad hoc informal working group reporting to the Committee considered legal issues regarding the adoption of mandatory ship reporting to VTS, bearing in mind the basic framework established by UNCLOS. These deliberations paved the way for the adoption of a new SOLAS regulation on mandatory ship reporting.

SOLAS regulation V/8-1 (see V/11 in the text of the amendments adopted by the MSC in 2000) enables States to adopt and implement mandatory ship reporting in accordance with guidelines and criteria developed by IMO. The regulation makes it mandatory for ships entering areas covered by ship reporting systems to report to the coastal authorities giving details of sailing plans. Other information may also be required in the case of certain categories of ships and ships carrying certain cargoes. The regulation also provides that:

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All adopted ship reporting systems must be consistent with international law, including the relevant provisions of UNCLOS.

IMO be recognized as the only international body for developing guidelines, criteria and regulations on an international level for ship reporting systems.

The initiation of action to establish a ship reporting system must be the responsibility of the Governments concerned. They should, in principle, refer their proposals to the Organization. Governments which do not submit ship reporting systems for adoption by the Organization should, wherever possible, try to conform with the guidelines and criteria developed by the Organization. Resolution MSC.43(64) adopted by the MSC contains such guidelines and criteria.

The regulation and its associated guidelines and criteria must not prejudice the rights and duties of Governments under international law, or the legal regime of international straits.

Bearing in mind the specific nature and features of VTS, regulation V/8-1(k) (see V/11 in the text of the amendments adopted by the MSC in 2000) adds that the participation of ships in accordance with the provisions of adopted ship reporting systems is free of charge to the ships concerned.

SOLAS regulation V/8-2 (see V/12 in the text of the amendments adopted by the MSC in 2000) deals with vessel traffic services and provides that the use of a VTS may only be made mandatory in sea areas within the territorial sea of a coastal State.

In November 1997, the IMO Assembly adopted resolution A.858(20) by which it delegated to MSC the function of adopting ship reporting systems. MSC established criteria for ship reporting systems in MSC.43(64).

7 PASSENGER SHIPS

Since 2000, a number of IMO bodies have been working on a series of specific tasks and objectives relating to large passenger ship safety. The package of amendments to SOLAS adopted at the 82nd session of the MSC meeting were therefore the result of a comprehensive review of passenger ship safety initiated in 2000 with the aim of assessing whether the current regulations were adequate, in particular for the large passenger ships being built.

The work in developing the new and amended regulations has based its guiding philosophy on the dual premise that the regulatory framework should place more emphasis on the prevention of a casualty from occurring in the first place and that future passenger ships should be designed for improved survivability so that, in the event of a casualty, persons can stay safely on board as the ship proceeds to port.

The amendments include new concepts such as the incorporation of criteria for the casualty threshold (the amount of damage a ship is able to withstand, according to the design basis, and still safely return to port) into SOLAS chapters II-1 and II-2. The amendments also provide regulatory flexibility so that ship designers can meet any safety challenges the future may bring. The amendments include:

- alternative designs and arrangements;
• safe areas and the essential systems to be maintained while a ship proceeds to port after a casualty, which will require redundancy of propulsion and other essential systems;

• on-board safety centres, from where safety systems can be controlled, operated and monitored;

• fixed fire detection and alarm systems, including requirements for fire detectors and manually operated call points to be capable of being remotely and individually identified;

• fire prevention, including amendments aimed at enhancing the fire safety of atriums, the means of escape in case of fire and ventilation systems; and

• time for orderly evacuation and abandonment, including requirements for the essential systems that must remain operational in case any one main vertical zone is unserviceable due to fire.

The amendments are expected to enter into force on 1 July 2010.

In addition to the aforementioned developments on safety of passenger ships, IMO has adopted two treaties on liability and compensation in connection with passenger claims. The 1974 Athens Convention relating to the Carriage of Passengers and their Luggage by Sea establishes limits of liability for claims such as death and injury and loss or damage to passenger’s property (luggage and vehicles). The 2002 Protocol to the 1974 Convention (not yet in force) significantly increases these limits and also introduces strict liability and compulsory insurance in connection with passenger claims.

The IMO Assembly, at its twenty-fifth session, adopted a resolution on Guidelines on voyage planning for passenger ships operating in remote areas in response to the growing popularity of cruise ships sailing to new destinations, some of which are at considerable distances from search and rescue facilities. This new IMO initiative comes in the aftermath of the adoption, by the Organization's Maritime Safety and Marine Environment Protection Committees, in December 2002, of Guidelines for ships operating in Arctic ice covered waters.

8 NUCLEAR-POWERED SHIPS AND SHIPS CARRYING DANGEROUS CARGO

Article 22(2) of UNCLOS empowers coastal States to confine the passage of foreign nuclear-powered ships and ships carrying dangerous cargoes in the territorial sea to the sea lanes, which, in accordance with paragraph 1 of the same article, these States are entitled to establish and enforce in respect of ships exercising the right of innocent passage.

The basic precautionary requirements regarding ships’ cargo and structure contained in article 22(1) and (2) are complemented by article 23, which specifically addresses the case of foreign nuclear-powered ships and ships carrying nuclear or other inherently dangerous and noxious substances. According to article 23, those ships have a duty, in exercising the right of innocent passage through the territorial sea, to carry the documents and observe the precautionary measures stipulated in “international agreements”. Undoubtedly SOLAS is one of these international agreements, in particular its chapter VIII dealing with nuclear ships and chapter VII, which governs the carriage of dangerous goods.
Nuclear ships

According to regulation VIII/10 of SOLAS, a certificate shall be issued to a nuclear ship which complies with the requirements of this Convention. Chapter VIII is supplemented by the Code of Safety for Nuclear Merchant Ships and the Safety Recommendations on the Use of Ports by Nuclear Merchant Ships.

In view of the risk posed by nuclear merchant ships, SOLAS regulation VIII/11 introduces special control measures. In addition to the general powers of control conferred upon port States by regulation I/19, regulation VIII/11 provides that nuclear ships “shall be subject to special control before entering the ports and in the ports of Contracting Governments, directed towards verifying that there is on board a valid Nuclear Ship Safety Certificate and that there are no unreasonable radiation or other hazards at sea or in port, to the crew, passengers or public, or to the waterways or food or water resources”. Accordingly, port States are authorized to enforce control measures in respect of foreign vessels in innocent passage through the territorial sea provided these vessels have clearly shown their intention to enter port.

Dangerous goods

Ships carrying dangerous cargo are subject to chapter VII of SOLAS, which regulates safety measures, including safe packaging and stowage, applicable to the carriage of dangerous goods by sea. This chapter is supplemented by several IMO codes, namely:

- the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code), made mandatory under SOLAS in accordance with regulation VII/10; in view of the importance of its application for the protection of the marine environment the IBC Code has also been made mandatory under MARPOL 73/78;

- the International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (IGC Code) (regulation VII/13), made mandatory for Parties to SOLAS under regulation VII/13;

- the International Maritime Dangerous Goods Code (IMDG Code), adopted by IMO in 1965, contains a consistent set of regulations for the transport of dangerous goods by sea. The Code covers such matters as packing, container traffic and stowage, with particular reference to the segregation of incompatible substances. Some sections of the code were made mandatory as from January 2004;

- the Code for the Safe Carriage of Irradiated Nuclear Fuel, Plutonium and High-Level Radioactive Wastes in Flasks on Board Ships (INF Code), applies, in addition to SOLAS and IMDG regulations, to all ships carrying certain high-level radioactive material. In resolution A.790(19), the IMO Assembly requested IMO’s technical bodies, in consultation with the IAEA and UNEP, to continue the review of the INF Code. The review of the INF Code under resolution A.790(19) included questions such as route planning, notification to coastal States, and the restriction or exclusion of such ships from particularly sensitive sea areas bearing in mind international conventions in force. A revised Code was adopted by the MSC at its seventy-first session in May 1999. At the same session, the Committee adopted regulations to make the Code mandatory under SOLAS chapter VII. These amendments came into force on 1 January 2001.
9 OFFSHORE INSTALLATIONS

UNCLOS establishes that in the territorial sea, the coastal State may adopt laws and regulations for the protection of facilities and installations in conformity with the Convention and “other rules of international law” (article 21(1)(b)).

Within the EEZ, the Convention (article 56(b)(i)), establishes the scope of coastal State jurisdiction regarding the establishment and use of artificial islands, installations and structures. Article 60 of the Convention reaffirms the exclusive right and jurisdiction of coastal States regarding regulation of the construction, operation and use of offshore facilities. Paragraphs 3 to 7 of the same article address the implications of these activities for the freedom and safety of navigation and regulate the duties of the coastal State in this regard.

Due notice must be given of the construction of offshore facilities and permanent means for giving warning of their presence must be maintained (paragraph 3). The coastal State may, where necessary, establish reasonable safety zones around such artificial islands, installations and structures in which it may take appropriate measures to ensure the safety both of navigation and of the artificial islands, installations and structures (paragraph 4). In accordance with paragraph 7, offshore installations and safety zones around them may not be established where this may cause interference in the use of recognized sea lanes essential to international navigation.

The implications of the establishment of structures and installations in connection with routeing systems and traffic separation schemes is considered in resolution A.572(14) on General Provisions on Ships’ Routeing referred to above. Paragraph 3.10 of the resolution recommends that Governments ensure, as far as practicable, that oil rigs, platforms and other similar structures are not established within routeing systems adopted by IMO or near their terminations. If the establishment of these installations cannot be avoided, the traffic separation scheme should be amended temporarily in accordance with guidelines given in section 7 of the same resolution. In the case of the establishment of permanent installations within a traffic separation scheme, permanent amendments to the scheme should, if deemed necessary, be submitted to IMO for adoption. IMO resolution A.671(16) on safety zones and safety of navigation around offshore installations and structures recommends Governments to study the pattern of shipping traffic at an early stage in order to assess potential interference with marine traffic passing close to or through resource exploration areas.

In accordance with article 60(3), any installations or structures which are abandoned or disused should be removed to ensure safety of navigation, taking into account any generally accepted international standards established in this regard by the competent international organization. Appropriate publicity must be given to the depth, position and dimensions of any installations or structures not entirely removed. IMO resolution A.672(16) on Guidelines and Standards for the Removal of Offshore Installations and Structures on the Continental Shelf and in the Exclusive Economic Zone defines the standards to be followed by the coastal State when making decisions regarding the removal of abandoned or disused installations and structures. Abandoned offshore installations should be removed, except in certain cases. A decision to allow an installation to remain, in whole or in part, on the seabed should take into account the circumstances described in the resolution. This instrument also incorporates and extends the requirement under article 60(3) of UNCLOS to provide “appropriate publicity” for the partial removal. According to resolution A.672(16), notification not only of partial removal but also of non-removal should be forwarded to IMO. IMO may establish that the publicity requirement takes into account the depth, position and dimension of the installations and structures not entirely removed, as provided in article 60(3) of UNCLOS. If the disposal is to be solved by dumping, article III(a)(ii) of the London Convention 1972 may apply. In this regard the Twenty-second
Consultative Meeting of the London Convention, 1972, adopted the Specific Guidelines for Assessment of Platforms or other Man-made Structures at Sea, in 2000.

Article 60(4) of UNCLOS provides that States may, when necessary, establish reasonable safety zones around artificial islands, installations and structures “in which it may take appropriate measures to ensure the safety both of navigation and of the artificial islands installation and structures”. Paragraph 5 of the same article establishes that the breadth of these safety zones should be determined by the coastal State taking into account “applicable international standards”. In principle this breadth must not exceed 500 metres, except as authorized by “generally accepted international standards” or as recommended by the “competent international organization” (IMO). In accordance with article 60(6), ships must respect those safety zones and comply with “generally accepted international standards” concerning navigation in the vicinity of offshore installations and safety zones.

IMO resolution A.671(16) recommends Governments to consider traffic patterns for the assessment of safety zones (recommendation 1(c)). The resolution has an annex containing specific guidelines for coastal and flag States, bearing in mind the requirement to give due notice of the construction of offshore structures and the extent of safety zones established in article 60(5) of the Convention. In this regard, the resolution recalls that coastal States are responsible for the dissemination of information concerning the location of offshore installations or structures and the breadth of safety zones around them. This dissemination should take the form of Notices to Mariners, radio warnings, lights and sound signals, etc. (Nos.1 and 4 of the annex). Permanent installations, structures or safety zones should be shown on all appropriate navigational charts (No.5 of the annex).

In addition, resolution A.671(16) provides international standards for vessels navigating in the vicinity of offshore installations or structures (No.2 of the annex), as required by article 60(6) of UNCLOS. The resolution also calls on coastal States to take action against those responsible for infringement of the regulations on safety zones, or at least to notify flag States, giving detailed evidence of the infringement by their vessels.

In accordance with article 80 of UNCLOS, the provisions of article 60 apply mutatis mutandis to artificial islands, installation and structures on the continental shelf.

Mobile offshore units

In November 1999, the IMO Assembly adopted resolution A.891(21) on Recommendations on Training of Personnel on Mobile Offshore Units (MOUs), which provide an international standard for the training of such personnel to ensure that levels of safety and protection of the marine environment are complementary to what is required under the STCW Convention. The resolution addresses all categories of personnel on MOUs, including the maritime crew, special personnel, and visitors.

10 NAVIGATIONAL AIDS AND FACILITIES

As stated above, the coastal State has legislative jurisdiction over innocent passage through the territorial sea with regard to the protection of navigational aids and facilities and other facilities or installations (article 21(1)(b), UNCLOS). The laws and regulations adopted by the coastal State must conform to the provisions of UNCLOS and “other rules of international law”, thereby becoming mandatory for all foreign ships (article 21(4), UNCLOS). The obligation of Contracting Governments to arrange for the establishment and maintenance of navigational aids is contained in SOLAS regulation V/14.
UNCLOS adopts a different approach to the establishment and maintenance of navigational and safety aids in the case of transit passage through straits used for international navigation: pursuant to article 43(a), user States and States bordering a strait should co-operate by agreement to establish and maintain in a strait any necessary navigational and safety aids or other improvements to assist international navigation. Whenever any routing measures are to be established in straits, paragraph 3.3 of the General Provisions on Ships’ Routeing requires that, in deciding whether or not to adopt a routing measure, IMO must consider whether the aids to navigation are adequate for the purpose of the system. Any action leading to the consideration and adoption of instruments of this kind should be taken by IMO as the competent international organization. Furthermore, the regulation in SOLAS V obliging Contracting Governments to arrange for the establishment and maintenance of such aids to navigation as they determine are required (V/14) was revised and renumbered as V/13 in the amendments adopted by the MSC in 2000.

Through the adoption of the Singapore Statement on Enhancement of Safety, Security and Environmental Protection in the Straits of Malacca and Singapore on 6 September 2007, a new framework, in which the littoral States of the Straits of Malacca and Singapore (the Straits) can work together with the international maritime community to enhance navigational safety, security and environmental protection in the Straits, has been formally agreed. It includes a co-operative mechanism on safety of navigation and environmental protection to promote dialogue and facilitate close co-operation between the littoral States, user States, shipping industry and other stakeholders in line with article 43 of UNCLOS. In resolution 62/215 of 22 December 2007, the General Assembly welcomed this progress in regional co-operation and the formal establishment of the Cooperative Mechanism.

In November 1997, the IMO Assembly adopted resolution A.860(20) on Maritime Policy for a Future Global Navigation Satellite System (GNSS) and set out the requirements for such a system, including “control by an international civil organization”. The system should provide ships with navigational position-fixing throughout the world for general navigation, including navigation in harbour entrances and approaches and other waters in which navigation is restricted. A revision to this policy was approved by the MSC at its 73rd session as a draft Assembly resolution, which was later on submitted to the twenty-second Assembly in 2001. Resolution A.915(22), which revoked resolution A.860(20), updated the user requirements for general navigation and positioning and introduced user requirements for non-general navigation and positioning.

11 RULES ON ASSISTANCE

Duty to render assistance

Under article 98 of UNCLOS, every State must require the master of a ship flying its flag, in so far as he can do so without danger to the ship, the crew, or the passengers, to:

- render assistance to any person found at sea in danger of being lost (paragraph 1(a));
- proceed to the rescue of persons in distress, when necessary (paragraph 1(b)); and
- after a collision, render assistance to the other ship, its crew and its passengers (paragraph 1(c)).

The obligations to render assistance and to proceed to the rescue of persons in distress is contained in two IMO treaty instruments. SOLAS stipulates the general obligation of the master of a ship to proceed, where necessary, with all speed to the assistance of a ship, aircraft, or survival craft in distress (regulation V/10, renumbered as V/33 in the amendments adopted in 2000).
The 1989 International Convention on Salvage lays down in article 10 the duty of a ship’s master to render assistance to any person at sea in danger of being lost. It further requires States Parties to adopt the necessary measures to enforce this duty.

Under articles 18(2), 45 and 52 of UNCLOS a ship may stop and anchor in the territorial sea of another State if it is necessary for the purpose of rendering assistance to persons or aircraft in danger or distress. Ships in transit passage through straits used for international navigation or in passage through archipelagic sea lanes are allowed to stop in cases of distress (articles 39(1)(c) and 54). It should be noted that article 39(3) concerning the requirement for aircraft to monitor the “appropriate international distress radio frequency” also has relevance to the search and rescue matters that fall within the competence of IMO, such as the Global Maritime Distress and Safety System (GMDSS).

**Search and rescue services**

UNCLOS requires coastal States to promote, through regional co-operation if necessary, the establishment, operation, and maintenance of a search and rescue service for safety at sea (article 98(2)). SOLAS stipulates the obligation of the master of a ship to proceed, where necessary with all speed, to the assistance of a ship, aircraft, or survival craft in distress (regulation V/10, renumbered as V/33 in the amendments adopted in 2000). Furthermore, SOLAS regulation V/15 (renumbered as V/7 in the amendments adopted in 2000) obliges State Parties to undertake the necessary arrangements for coast watching and the rescue of persons in distress around its coasts.

A specific legal framework for the obligations relating to search and rescue is established in the International Convention on Maritime Search and Rescue, 1979 (SAR). This Convention requires States Parties to establish services for search and rescue of persons in distress, although these are limited to the area around the coasts (rule 2.1.1). For this purpose, SAR includes regulations on the establishment of search and rescue regions within which the coastal State is responsible for the provision of search and rescue services. Parties to SAR are required to co-ordinate their search and rescue services with those of neighbouring States. Unless otherwise agreed between the States concerned, parties should authorize immediate entry into their territorial sea or territory of rescue units of other parties solely for the purpose of searching for the position of maritime casualties and rescuing the survivors of such casualties. In such cases the State requesting entry must transmit to the coastal State full details of the projected mission and the need for it (SAR, chapters 3, 3.1.2 and 3.1.3). SAR regulation 2.1.7 contains a proviso of paramount importance: the delimitation of search and rescue regions “shall not prejudice the delimitation of any boundary between States”.

Following the entry into force of the SAR Convention, the world’s seas were divided into 13 SAR regions. In most of them, provisional SAR plans have been developed in line with the requirements of the Convention. At present, provisional SAR plans have still to be completed in the Western South Atlantic, Eastern North Pacific, Eastern South Pacific and Mediterranean and Black Seas regions. It should be noted that article 39(3) concerning the requirement for aircraft to monitor the “appropriate international distress radio frequency” also has relevance to the search and rescue matters that fall within the competence of IMO, such as GMDSS.

In May 2004 the MSC agreed to establish an international Search and Rescue Fund as soon as possible to support the establishment and continued maintenance of regional Maritime Rescue Co-ordination Centres (MRCCs) and Maritime Rescue Sub-Centres (MRSCs) along the African coastlines.
Treatment of persons rescued at sea

At its twenty-second session held in 2001, the IMO Assembly adopted resolution A.920(22) on Review of Measures and Procedures for the Treatment of Persons Rescued at Sea. The resolution requests IMO bodies to review all relevant IMO instruments to identify any existing gaps, inconsistencies, ambiguities, vagueness or other inadequacies, so that appropriate action can be taken. Work in this area is continuing in co-operation and co-ordination with the Division of Ocean Affairs and the Law of the Sea (DOALOS) of the United Nations Office of Legal Affairs and with other international organizations including the United Nations High Commissioner for Refugees (UNHCR), the United Nations Office on Drugs and Crime (UNODC), the Office of the High Commissioner for Human Rights (OHCHR), and the International Organization for Migration (IOM).

In response to resolution A.920(22), in May 2004 the MSC adopted amendments to the SOLAS and SAR conventions concerning the treatment of persons rescued at sea, and/or asylum seekers, refugees and stowaways. The amendments, which entered into force on 1 July 2006, include:

- SOLAS – chapter V (Safety of Navigation) – to add a definition of search and rescue services; to set an obligation to provide assistance, regardless of nationality or status of persons in distress, and mandate co-ordination and co-operation between States to assist the ship’s master in delivering persons rescued at sea to a place of safety; and to add a new regulation concerning master’s discretion.

- SAR – Annex to the Convention – addition of a new paragraph to chapter 2 (Organization and co-ordination) relating to definition of persons in distress, new paragraphs to chapter 3 (Co-operation between States) relating to assistance to the master in delivering persons rescued at sea to a place of safety, and a new paragraph to chapter 4 (Operating procedures) relating to rescue co-ordination centres’ initiation of the process of identifying the most appropriate places to disembark persons found in distress at sea.

The MSC also adopted the “Guidelines on the treatment of persons rescued at sea” with the aim of providing guidance regarding humanitarian obligations and obligations under the relevant international law.

Unsafe practices associated with trafficking of migrants by sea

IMO Assembly resolution A.867(20), on Combating Unsafe Practices Associated with the Trafficking or Transport of Migrants by Sea, notes with concern the incidents involving the loss of life resulting from the use of sub-standard ships for transport of migrants. The resolution invites governments to co-operate and increase their efforts in order to suppress these unsafe practices. Following the adoption of this resolution, the MSC approved MSC/Circ.896 entitled “Interim measures to prevent and suppress unsafe practices associated with the trafficking or transport of migrants by sea”.

Reference may also be made in this regard to resolution A.773(18) on Enhancement of Safety of Life at Sea by the Prevention and Suppression of Unsafe Practices Associated with Alien Smuggling by Ships.
12 MARINE CASUALTY INVESTIGATIONS

Article 94(7) of UNCLOS provides that the flag State has the duty to conduct an investigation into every marine casualty or navigational incident on the high seas involving a ship flying its flag. This duty applies if the casualty has caused loss of life or serious personal injury, or serious damage to ships, installations, or the marine environment. The investigation has to be conducted by, or before, suitably qualified persons. UNCLOS requires the flag State and the other State involved to co-operate in conducting the investigation. Provisions on penal jurisdiction in matters of collision or any other incident of navigation are contained in article 97 of the Convention. By virtue of article 58(2) of the Convention, articles 94(7) and 97 apply also to marine casualties in the EEZ. While the English text of UNCLOS uses the expressions “marine casualty” in article 94 and “maritime casualty” in article 221, they are probably intended to mean the same thing, since all other language texts of the Convention use the same expression in both articles.

Article 97(2) provides that in disciplinary matters, “the State which has issued a master certificate or a certificate of competence or licence shall alone be competent, after due legal process, to pronounce the withdrawal of such certificates, even if the holder is not a national of the State which issued them”. This provision should be considered when maritime administrations take decisions on withdrawal of certificates issued according to STCW.

The obligation of the flag State to conduct an investigation of any casualty occurring to any of its ships is contained in SOLAS regulation I/21, Load Lines, article 23, and MARPOL, article 12. However, these provisions regulate the duty to investigate only for the purpose of determining the need for any changes to each of these treaties, and accordingly include the requirement that Parties provide IMO with appropriate information. Resolutions A.849(20) and A.884(21) elaborate extensively on the duties regulated in UNCLOS for States to co-operate in conducting an inquiry. Resolution A.849(20) notes that the relevant articles of UNCLOS reflect an established international determination to achieve greater investigative co-operation between States, and recommends States to implement the proposed procedures for the conduct of maritime investigations into maritime safety and/or environmental protection. These procedures are set out in the Code for the Investigation of Marine Casualties and Incidents, including the procedures for consultation, co-ordination, and co-operation in conducting an investigation between flag States and other States having a substantial interest in a maritime casualty. This Code was amended by resolution A.884(21) to include guidelines for the investigation of human factors in marine casualties and incidents.

The Long-Term Work Plan of IMO, recognizing the importance of maritime casualty investigation, includes items such as the role of the human element, casualty statistics and investigations, safe evacuation, and survival and recovery following maritime casualties.

In 2008, the MSC, at its eighty-fourth session, adopted a new Code of International Standards and Recommended Practices for a Safety Investigation into a Marine Casualty or Marine Incident to become mandatory under SOLAS. The new Code provides a common approach for States to adopt in the conduct of marine safety investigations into marine casualties and incidents and promotes co-operation among substantially interested States to contribute to the investigation. It requires a marine safety investigation to be conducted into every "very serious marine casualty". It recommends that a marine safety investigation be conducted into other marine casualties and incidents, by the flag State of any ship involved, if it is considered likely that an investigation would provide information that could be used to prevent future marine casualties and marine incidents.
Fair treatment of seafarers in the event of a maritime accident

The Legal Committee, at its ninety-first session in 2006, adopted the Guidelines on fair treatment of seafarers in the event of a maritime accident.

The Guidelines recommend that they be observed in all instances where seafarers may be detained by public authorities in the event of a maritime accident.

Given the global nature of the shipping industry and the different jurisdictions with which the seafarers may be brought into contact, they need special protection, especially in relation to contact with public authorities. The objective of the Guidelines is to ensure that seafarers are treated fairly following a maritime accident and during any investigation and detention by public authorities and that detention is for no longer than necessary.

The Guidelines give advice on steps to be taken by all those who may be involved following an incident: the port or coastal State, flag State, the seafarer’s State, the shipowner and seafarers themselves. The emphasis is on co-operation and communication between those involved and in ensuring that no discriminatory or retaliatory measures are taken against seafarers because of their participation in investigations. All necessary measures should be taken to ensure the fair treatment of seafarers. The implementation of the Guidelines is being monitored by the Legal Committee.

13 ILLICIT ACTS

Several provisions in UNCLOS establish conditions for co-operation among States to suppress illicit acts such as piracy or drug-trafficking.

Piracy

In articles 100 to 107 UNCLOS reaffirms the duty and obligation of every State to act against piracy. The definitions of piracy and pirate ship, the seizure of a pirate ship, and the liability for seizure are the main elements in these provisions that may be of interest to IMO. Articles 105 (on seizure of a pirate ship or aircraft), 110 (on the right of warships to visit a foreign ship on the high seas) and 111 (on the right of hot pursuit) provides a legal basis for responding to attempted acts of piracy. This legal basis applies to the EEZ by virtue of article 58(2).

Some areas of the oceans are still affected by a disturbing number of acts of piracy, giving rise to grave danger to life and to severe navigational and environmental risks. In this connection and mindful of the duty of the States to co-operate in the repression of piracy as stipulated in article 100 of UNCLOS, IMO has adopted among others resolution A.738(18) on Measures to Prevent and Suppress Piracy and Armed Robbery Against Ships. The resolution empowers the Maritime Safety Committee to keep this issue under continuous review, and it has accordingly been included in the Long-Term Work Plan. As a result, the IMO Secretariat circulates monthly reports on piracy and armed robbery against ships, and on stowaway cases and illegal migrants, and has explored ways to maintain pressure against all forms of unlawful acts at sea. IMO is also actively promoting regional co-operation in combating piracy through a series of regional meetings and seminars. Additionally, Assembly resolution A.922(22) provides a Code of Practice for the Investigation of the Crimes of Piracy and Armed Robbery against Ships and resolution A.923(22) prescribes Measures to Prevent the Registration of “Phantom” Ships.
IMO Assembly, at its twenty-fourth session in November-December 2005 adopted a resolution A.979(24) on Piracy and armed robbery against ships in waters off the coast of Somalia. The resolution condemns and deplores all acts of piracy and armed robbery against ships and appeals to all parties, which may be able to assist, to take action, within the provisions of international law, to ensure that all acts or attempted acts of piracy and armed robbery against ships are terminated forthwith; any plans for committing such acts are abandoned; and any hijacked ships are immediately and unconditionally released and that no harm is caused to seafarers serving in them.

Whilst the recommendations set out in resolution A.979(24) continue to be sound and relevant, a review of a number of incidents reported to the Organization appeared to suggest that not all Member States had acted pursuant to it. The Assembly reaffirmed its recommendations and raised, once more, the level of international awareness, especially in view of the risk to human life placed by the continual operation of pirates and armed robbers in the area under review by adopting resolution A.1002(25) on Piracy and armed robbery against ships in waters off the coast of Somalia. The new resolution requests the Transitional Federal Government of Somalia, the Council and the Secretary-General to take appropriate action within their remit; and, in particular, the Maritime Safety Committee to undertake a comprehensive review of the existing guidance provided by the Organization for preventing and suppressing piracy and armed robbery against ships.

In resolution 62/215 of 22 December 2008, the General Assembly expressed deep concern regarding the continuous violent attacks on ships off the coast of Somalia, and welcomed the initiatives supported by IMO and the World Food Programme to strengthen cooperation among States to protect ships, in particular those transporting humanitarian aid, from acts of piracy and armed robbery in that region. In addition, the General Assembly noted the adoption of resolution A.1002(25) on 29 November 2007 by IMO Assembly and encouraged States to ensure its full implementation, and also noted the initiatives taken by the Secretary-General of IMO, following up on resolution A.979(24), to engage the international community in efforts to combat acts of piracy and armed robbery against ships sailing the waters off the coast of Somalia.

In April 2008, IMO convened a sub-regional meeting on piracy and armed robbery against ships in the Western Indian Ocean in Dar es Salaam, Tanzania. The meeting considered a regional agreement on piracy and armed robbery against ships for the Western Indian Ocean area.

On 2 June 2008, the UN Security Council unanimously adopted resolution 1816(2008). Under the terms of this resolution, the Security Council decided that, following receipt of a letter from Somalia to the President of the UN Security Council giving the consent of Somalia’s Transitional Federal Government (TFG), States co-operating with the TFG would be allowed, for a period of six months, to enter the country’s territorial waters and use “all necessary means” to repress acts of piracy and armed robbery at sea, in a manner consistent with relevant provisions of international law.

The Security Council text was adopted with the consent of Somalia, which itself lacks the capacity to interdict pirates or patrol and secure its territorial waters. It follows a surge in attacks on ships in the waters off the country’s coast, including hijackings of vessels operated by the World Food Programme (WFP) and other commercial vessels – all of which posed a threat “to the prompt, safe and effective delivery of food aid and other humanitarian assistance to the people of Somalia”, and a grave danger to vessels, crews, passengers and cargo.
Affirming that the authorization provided in the resolution applies only to the situation in Somalia and shall not affect the rights and obligations under the United Nations Convention on the Law of the Sea, nor be considered as establishing customary international law, the Security Council also requested co-operating States to ensure that anti-piracy actions they undertake do not deny or impair the right of innocent passage to the ships of any third State.

While urging States, whose naval vessels and military aircraft operate on the high seas and airspace adjacent to the coast of Somalia to be vigilant, the Security Council encouraged States interested in the use of commercial routes off the coast of Somalia to increase and co-ordinate their efforts to deter attacks upon and hijacking of vessels, in co-operation with the country’s Government. All States were urged to co-operate with each other, with IMO and, as appropriate, with regional organizations, and to render assistance to vessels threatened by or under attack by pirates.

Illicit drug-trafficking

UNCLOS (article 108) imposes upon States the duty to co-operate in the suppression of illicit drug-trafficking engaged in by ships on the high seas. Article 58(2) makes this obligation applicable to the EEZ. The problem of drug-trafficking has been considered by IMO within the scope of the amendments introduced in 1990 to the 1965 Convention on Facilitation of International Maritime Traffic (FAL). The standards and recommended practices adopted by FAL are addressed to the public authorities of the Contracting Governments but are applicable only within the jurisdiction of the port State. Measures to suppress illicit traffic in narcotic drugs and psychotropic substances on the high seas and in the exclusive economic zone are addressed in article 108 of UNCLOS and article 17 of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances, 1988. Article 17 deals with co-operation among parties under authorization of the flag State to search and board vessels engaged in such illicit traffic. It further provides that, if evidence of involvement in illicit traffic is found, appropriate action can be taken with respect to the vessel, persons, and cargo on board.

IMO Assembly resolution A.872(20) on Guidelines for the Prevention and Suppression of the Smuggling of Drugs, Psychotropic Substances and Precursor Chemicals on Ships Engaged in International Maritime Traffic was revised by MSC at its eighty-second session.

Terrorism

A variety of acts of terrorism have also threatened the safety of ships and the security of their passengers and crews. IMO has addressed the request of the General Assembly of the United Nations to contribute to the progressive elimination of international terrorism. The Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation, 1988 and the Protocol for the Suppression of Unlawful Acts against the Safety of Fixed Platforms Located on the Continental Shelf, 1988 (SUA Convention and Protocol) deal with unlawful acts that fall outside the crime of piracy as defined in article 101 of UNCLOS.

The main purpose of the original SUA Convention and Protocol is to ensure that appropriate action is taken against persons committing unlawful acts against ships and fixed platforms located on the Continental Shelf. The SUA Convention and the Protocol list several offences, including the seizure of ships by force; acts of violence against persons on board ships; and the placing of devices on board a ship which are likely to destroy or damage it. It obliges Contracting Governments either to extradite or prosecute those alleged to have committed these offences.
The terrorist attacks of 11 September 2001 on the United States of America prompted a concerted response from IMO, reflected in IMO Assembly resolution A.924(22) on Review of Measures and Procedures to Prevent Acts of Terrorism which Threaten the Security of Passengers and Crews and the Safety of Ships. In the resolution the Assembly request the revision of legal and technical measures and considers new ones to prevent and suppress terrorism against ships and to improve security aboard and ashore, in order to reduce the risk to passengers, crews and port personnel on board ships and in port areas and to the vessels and their cargoes.

In response to resolution A.924(22), the Legal Committee of IMO undertook a comprehensive review of the SUA treaties. As a result of this review an International Conference on the revision of the SUA Treaties was convened at IMO in October 2005, at which two Protocols amending the original Convention and Protocol were adopted, namely the 2005 Protocol to the Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation, 2005 and the 2005 Protocol to the Protocol for the Suppression of Unlawful Acts Against the Safety of Fixed Platforms Located on the Continental Shelf.

The 2005 Protocols amend the original treaties by broadening the list of offences to include, for example, the offences of using a ship itself in a manner that causes death or serious injury or damage, transporting a biological, chemical or nuclear (BCN) weapon, knowing it to be such, and transporting any equipment, materials or software or related technology that significantly contributes to the design, manufacture or delivery of a BCN weapon, with the intention that it be used for such purpose. It is also an offence to unlawfully and intentionally transport a person on board a ship knowing that the person has committed an offence under the SUA Convention or an offence set forth in any of the conventions listed in the Annex. The 2005 Protocol to the Convention introduces provisions for the boarding of a ship where there are reasonable grounds to suspect that the ship or a person on board the ship is, has been, or is about to be involved in, the commission of an offence under the Convention. The Preamble to the 2005 Protocol to the SUA Convention recalls the importance of UNCLOS and of the customary international law of the sea.

In addition to the amendments to SUA treaties, a completely new regulatory safety regime designed to prevent ships and their cargoes becoming the targets of terrorist activities was considered and adopted at a diplomatic conference in December 2002. The new measures are centred around a proposed International Ship and Port Facility Security Code, part of which has become mandatory through amendments to SOLAS 74. The Code provides the framework for cooperation between governments, government agencies, local administrations and the shipping and port industries to detect security threats and take preventive measures against security incidents affecting ships or port facilities used in international trade.

The most far-reaching of these amendments consists in the introduction of a new SOLAS chapter XI-2 regulating implementation of the International Ship and Port Facility Security Code (ISPS Code). The Code contains detailed security-related requirements for governments, port authorities and shipping companies in a mandatory section (Part A), together with a series of guidelines on how to meet these requirements in a second, non-mandatory section (Part B). Maritime administrations are required to set security levels and ensure the provision of security-level information for ships entitled to fly their flag. Prior to entering a port, or while in a port within the territory of a Contracting Government, a ship shall comply with the requirements for the security level set by that Contracting Government if that security level is higher than the security level set by the Administration for that ship. The role of the master in exercising his professional judgement over decisions necessary to maintain the security of the ship is explicitly confirmed with the proviso that the master shall not be constrained by the company managing the ship, the charterer or any other person.
The new SOLAS regulations require all ships to be provided with a ship security alert system. When activated, the ship security alert system must initiate and transmit a ship-to-shore security alert to a competent authority designated by the Administration, identifying the ship and its location and indicating that the security of the ship is under threat or has been compromised. The system will not raise any alarm on board the ship. The ship security alert system must be capable of being activated from the navigation bridge and at least one other location.

The new regulations also cover requirements for port facilities, obliging Contracting Governments to ensure, inter alia, that port facility security assessments are carried out and that port facility security plans are developed, implemented and reviewed in accordance with the ISPS Code. Other regulations cover the provision of information to IMO, the control of ships in port, (including measures such as the delay, detention, restriction of operations – including movement within the port – or expulsion of a ship from port) and the specific responsibility of companies.

The amendments came into force on 1 July 2004.

In May 2004 the MSC approved a Circular on “Guidelines for the Implementation of SOLAS chapter XI-2 and the ISPS Code” which provides guidance on:

- security measures and procedures to be applied at the ship/port interface when either the ship or the port facility do not comply with the requirements of chapter XI-2 and of the ISPS Code;

- security measures and procedures to be applied by a ship which is required to comply with the requirements of chapter XI-2 and the ISPS Code, when it interfaces with an FPSO or an FSU; and

- implementation of the ISPS Code in relation to shipyards.


At its eighty-third session, the MSC began consideration of issues relating to the security aspects of the operation of ships which do not fall within the scope of SOLAS chapter XI-2 and the ISPS Code (including cargo ships of less than 500 gross tonnage which are engaged on international voyages). The Committee agreed that non-SOLAS vessels share the same operational environment as ships which fall within the scope of application of SOLAS chapter XI-2 and the ISPS Code and the operations of the former affect the security of the latter. Thus, it was necessary to address the security aspects of the operation of non-SOLAS ships in a systematic and analytical manner, so as to achieve a tangible enhancement of the global security net which the provisions of SOLAS chapter XI-2 and the ISPS Code were seeking to establish.

At the same session, the MSC also agreed that any guidelines to be developed on this subject should be non-mandatory, and that their application be kept under the purview of the individual Contracting Governments concerned. A correspondence group was established to undertake a study to determine the scope of the issues and threats involved and to develop recommendatory guidelines on measures to enhance maritime security to complement measures required by SOLAS chapter XI-2 and the ISPS Code, which could be utilized by Contracting Governments and/or administrations, at their own discretion.
Stowaways

Resolution A.871(20) of the IMO Assembly contains *Guidelines on the Allocation of Responsibilities to Seek the Successful Resolution of Stowaway Cases*. These guidelines acknowledge that legislation in this area is different from country to country, but establishes some basic common principles based on close co-operation between shipowners and port authorities.

14 OTHER ISSUES

Removal of wrecks

Several provisions in UNCLOS are relevant to the removal of wrecks, including the general obligation on States to protect and preserve the marine environment (article 192). In relation to the territorial sea, article 21(1)(a) provides that a coastal State may adopt laws and regulations, in conformity with the provisions of UNCLOS and other rules of international law, relating to innocent passage through the territorial sea, in respect of the safety of navigation and the regulation of maritime traffic. Article 221(1) of UNCLOS, which codifies basic principles under the Intervention Convention of 1969 and its Protocol of 1973, recognizes the right of a coastal State, pursuant to international law, both customary and conventional, to take and enforce measures beyond the territorial sea proportionate to the actual or threatened damage to protect their coastline or related interests from pollution or threat of pollution following upon a maritime casualty or acts relating to such a casualty, which may reasonably be expected to result in “major harmful consequences”.

The scope of the Intervention Convention of 1969, the Protocol of 1973, and article 221(1) of UNCLOS is restricted to casualties of a catastrophic nature likely to cause major harmful consequences to the coastline and related interests of a State. Moreover, the treaties are restricted to damage to coastal or related interests from pollution. Accordingly, these treaties do not empower a coastal State either to intervene generally to remove wrecks in waters beyond the territorial sea in situations where safety of navigation rather than damage from pollution is an issue, or in cases of pollution that does not result in major harmful consequences.

An IMO Conference convened at the United Nations Office (UNON) in Nairobi adopted, on 18 May 2007, the Nairobi International Convention on the Removal of Wrecks, 2007. The Nairobi Convention fills a gap in the existing international legal framework and provides the legal basis for States to remove from their exclusive economic zones, wrecks which pose a hazard to the safety of navigation or to the marine and coastal environments, or both. It will make shipowners financially liable and require them to take out insurance or provide other financial security to cover the costs of wreck removal. It will also provide States with a right of direct action against insurers.

Articles in the Nairobi Convention cover:

- reporting and locating ships and wrecks – covering the reporting of casualties to the nearest coastal State; warnings to mariners and coastal States about the wreck; and action by the coastal State to locate the ship or wreck;

- criteria for determining the hazard posed by wrecks, including depth of water above the wreck, proximity of shipping routes, traffic density and frequency, type of traffic and vulnerability of port facilities. Environmental criteria such as damage likely to result from the release into the marine environment of cargo or oil are also included;
• measures to facilitate the removal of wrecks, including rights and obligations to remove hazardous ships and wrecks – which sets out when the shipowner is responsible for removing the wreck and when a State may intervene;

• liability of the owner for the costs of locating, marking and removing ships and wrecks – the registered shipowner is required to maintain compulsory insurance or other financial security to cover liability under the convention; and

• settlement of disputes - part XV of UNCLOS, relating to the settlement of disputes, applies, *mutatis mutandis*, if no settlement is possible within 12 months.

The Nairobi Convention also includes an optional clause enabling States Parties to extend the application of certain provisions of this Convention to wrecks located within its territory, including the territorial sea. If a State chooses the opt-in option, it has to notify the Secretary-General accordingly, at the time of expressing its consent to be bound by this Convention or at any time thereafter.

The new Convention will be open for signature from 19 November 2007 until 18 November 2008.
CHAPTER II

PREVENTION AND CONTROL OF MARINE POLLUTION

GENERAL

Article 1 of UNCLOS includes definitions of pollution of the marine environment and dumping. Several other articles refer in general to the rights and obligations of States in relation to protection and preservation of the marine environment and the prevention of marine pollution on the high seas, the EEZ and the territorial sea. These provisions should be read together with those included in part XII, which deals exclusively with the protection and preservation of the marine environment from different sources of pollution. IMO has a mandate as the competent international organization to adopt rules and standards relating to pollution from vessels and pollution by dumping.

Several IMO safety instruments include provisions which also aim at preventing and controlling pollution hazards posed by maritime accidents involving ships. In these provisions the management of safety and pollution risks are interconnected.

Other IMO instruments exclusively regulate anti-pollution measures, irrespective whether the introduction of polluting substances into the sea is the result of an accident involving a ship or from the operational discharges from vessels. In this regard, the following instruments should be noted:

- International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL);
- Protocol of 1997 to MARPOL concerning the prevention of air pollution from ships;
- International Convention on Oil Pollution Preparedness, Response and Co-operation, 1990 (OPRC);
- Protocol on Preparedness, Response and Co-operation to Pollution Incidents by Hazardous and Noxious Substances, 2000 (HNS Protocol);
- International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties, 1969 (Intervention Convention);
- Protocol Relating to Intervention on the High Seas in Cases of Marine Pollution by Substances Other Than Oil, 1973 (Intervention Protocol);
- International Convention on the Control of Harmful Anti-fouling Systems on Ships, 2001 (AFS – will enter into force on 17 September 2008); and
In the case of MARPOL, compliance with the requirement of general acceptance of the anti-pollution rules and standards established in the Convention is shown by the fact that 147 States representing 99% of the world’s merchant fleet are parties to this Convention and implement its two mandatory Annexes I and II, which regulate prevention of pollution by oil and noxious liquid substances, respectively. Annexes III (harmful substances in package form), IV (sewage from ships) and V (garbage) are optional. Annex VI, contained in a separate treaty instrument (the 1997 Protocol to MARPOL) contains provisions for the prevention of air pollution from ships. All MARPOL annexes are in force.

Prevention and control of pollution by dumping is regulated by two treaty instruments:

- Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972 (LC or London Convention);


Anti-pollution measures are also the subject of several IMO Assembly resolutions.

Taking into account provisions of UNCLOS, including articles 195 and 211, the MEPC has been considering IMO’s role regarding the scrapping of ships or ship recycling, with the intention of reducing pollution from ships in connection with such recycling and reducing the risk to human health at the recycling yards. This is a process involving the International Labour Organization (ILO), the Basel Convention under UNEP, and IMO. For its part, IMO has developed guidelines on ship recycling (resolution A.962(23)) which were adopted by the Assembly in 2003. The three organizations have agreed to continue to co-operate on this issue.

As already indicated in the introductory part to this document, IMO’s anti-pollution treaties should be applied with reference to the compatibility criteria established in article 237 of UNCLOS, which refers to obligations under other conventions on the protection and preservation of the marine environment. Paragraph 1 of article 237 establishes that provisions included in part XII are without prejudice to the specific obligations contained in previously concluded treaties; paragraph 2 provides that these treaties should be implemented in accordance with the general principles and objectives of UNCLOS. The application of the compatibility criteria is especially important in connection with the implementation of MARPOL and the London Convention, the two main treaties regulating prevention of pollution from vessels and from dumping which were adopted years before UNCLOS.

Like the provisions related to IMO activities in other parts of UNCLOS, several articles in part XII include references to general rules and standards, namely the operative provisions included not in UNCLOS but in IMO instruments. In some cases, however, UNCLOS contains regulations which are themselves of an operative kind and can thus be implemented in a way similar to IMO rules and standards. One such example is to be found in the provisions on enforcement of port State jurisdiction, and another in the special mandatory measures adopted for certain areas. Such subjects are regulated by both UNCLOS and MARPOL. Provisions in the two treaties therefore complement each other and should be read together in order to ensure proper and uniform implementation.
Article 9(3) of MARPOL requires that jurisdiction be construed in light of international law in force at the time of application or interpretation of MARPOL. Such international law, as set forth in UNCLOS, describes, *inter alia*, the circumstances, safeguards, and geographical zones relating to coastal, flag and port State jurisdiction. Thus, for many Parties to MARPOL, international law influences the enforcement of MARPOL. For ease of reference, MARPOL provisions which are complementary to or require interpretation in light of provisions of UNCLOS are contained in the following table:

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<tr>
<th>MARPOL Section</th>
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A  VESSEL-SOURCE POLLUTION

1  GENERAL FRAMEWORK

Article 211(1) of UNCLOS lays down a general obligation for States, acting through the competent international organization (IMO) or general diplomatic conference, to establish international rules and standards regarding vessel-source pollution, and to re-examine them from time to time as necessary. As mentioned above, the main IMO treaty in this area is MARPOL. Article 2(2) and (3) of MARPOL includes a definition of “harmful substances” which is entirely compatible with the definition of “pollution of the marine environment” included in article 1(4) of UNCLOS. Both definitions refer to the introduction of substances into the marine environment which results or can result in hazards to human health, harm to resources and hindrance to legitimate uses of the sea. While the definition included in UNCLOS applies to all sources of marine pollution, MARPOL deals only with pollution from vessels and accordingly includes a definition of “discharges” from ships.

In principle, MARPOL deals with operational discharges of harmful substances, namely those related to the normal operation of ships. Six technical annexes regulate preventive measures regarding five main categories of substances, namely, Oil (Annex I), Noxious Liquid Substances in Bulk (Annex II), Harmful Substances Carried by Sea in Packaged Forms (Annex III), Sewage (Annex IV), Garbage (Annex V), and Air Pollution (Annex VI). The Convention includes a Protocol concerning reports on incidents involving harmful substances, which apply to incidents resulting from operational discharges as well as from accidents involving a ship.

In 1997, a Conference of Parties to MARPOL adopted the Protocol of 1997 to amend MARPOL by adding a new Annex VI containing the Regulations for the Prevention of Air Pollution from Ships. The Protocol entered into force on 19 May 2005. Annexes I, II and IV have been revised and are in force. Annex III has also been revised and will enter into force in 2010.
Relationship between flag, port and coastal State jurisdiction

As in the case of IMO safety instruments, the enforcement of MARPOL relies primarily on the exercise of flag State jurisdiction in regard to the construction, design, equipment and manning of ships. MARPOL also includes regulations relating to the inspection of foreign ships voluntarily in port, to ensure that they comply with anti-pollution rules and standards and to prevent the ship from sailing if these requirements are not met. Furthermore, MARPOL entitles port States to institute proceedings in accordance with their law. Provisions on the institution of proceedings in this regard should be read together with the regulations included in article 228 of UNCLOS.

Regulations contained in UNCLOS and MARPOL on the exercise of flag and port State jurisdiction should be related to the UNCLOS provisions dealing with the exercise of coastal State jurisdiction in connection with the enforcement of anti-pollution measures. These provisions regulate the institution of proceedings for violations in respect of foreign ships navigating the jurisdictional waters of the coastal State without voluntarily entering its ports or the port of another State.

Safeguards in connection with proceedings instituted in respect of foreign ships

Section 7 of part XII of UNCLOS contains several provisions which regulate the enforcement powers of both port and coastal States vis-à-vis flag States in connection with the institution of proceedings against foreign ships.

Article 225 of UNCLOS provides that States, when exercising measures of enforcement against foreign vessels, shall not endanger the safety of navigation or otherwise create any hazard to a vessel, or bring the vessel to an unsafe port or anchorage, or expose the marine environment to an unreasonable risk.

Inspections

Article 226 declares that inspections shall not unduly delay the vessel and shall be limited to an examination of certificates, records and other documents required by “generally accepted international rules and standards”. Article 5 of MARPOL contains provisions on certificates and special rules on ship inspections which apply to foreign vessels voluntarily in port. Regulations on the issue and content of certificates are included in the annexes to this Convention. Article 7 of MARPOL includes the obligation to avoid undue delay to ships.

Article 6 of MARPOL contains regulations on the detection of violations and the procedures to be undertaken by port States. They include detailed requirements on co-operation between the administrations of the port and flag State following the detection of a violation to this Convention committed by a foreign ship. These provisions should be considered bearing in mind article 226(2) of UNCLOS. Resolution A.787(19) on Procedures for Port State Control adopted by the IMO Assembly in 1995 contains comprehensive guidelines on port State inspections, identification of contraventions, detention and port and flag State reporting requirements. The guidelines include provisions on the detention of ships.

Protocol I to MARPOL contains provisions regarding reporting on pollution or imminent threat of pollution by the ship to the nearest coastal radio station. Regulation 25 of Annex I and regulation 16 of Annex II oblige ships to establish on-board contingency plans to deal with incidents involving oil or chemical spills from ships.
Institution of proceedings

UNCLOS (article 231) provides that States shall promptly notify the flag State, particularly its diplomatic agents or consular officers and maritime authority, and any other State concerned, of enforcement measures taken against foreign ships. However, with respect to violations committed in the territorial sea, this obligation applies only to such measures as are taken in proceedings. The obligation of port authorities to notify the consul or diplomatic representative and the Administration of the ship concerned of any action against the ship is contained in article 5(3) of MARPOL.

In accordance with article 223 of UNCLOS, States are obliged in the proceedings taken against a vessel to facilitate the admission of evidence submitted by, inter alia, the “competent international organization”. States are also required to facilitate the attendance at such proceedings of official representatives of the “competent international organization”. Those representatives have such rights and duties as may be provided under national law or international law. The appropriate bodies of IMO may find it necessary to consider the procedures and arrangements required to enable IMO to intervene in such proceedings, including the criteria for determining when such an intervention would be appropriate and the procedure for designating the “official representatives” of the Organization, as envisaged in UNCLOS.

Suspension and restrictions on institution of proceedings

UNCLOS regulates special suspension and restriction conditions on proceedings to impose penalties. In accordance with article 228(1), proceedings taken against a foreign ship for violations which occurred beyond the territorial sea of other States must be suspended if the flag State institutes proceedings within six months after the original proceedings were initiated. However, the requirement of suspension does not apply to proceedings which involve major damage to the coastal State or when the flag State has repeatedly disregarded its obligations effectively to enforce the applicable international rules and standards in respect of violations committed by its vessels. The flag State which has taken proceedings is obliged in due course to “make available to the State previously instituting proceedings a full dossier of the case and the records of the proceedings, whenever the flag State has requested the suspension of proceedings in accordance with this article”.

Sanctions

UNCLOS distinguishes different types of sanctions to be imposed with respect to violations of applicable laws and international rules and standards relating to vessel-source pollution committed by foreign vessels. If the violation is committed beyond the territorial sea, monetary penalties only may be imposed (article 230(1) of UNCLOS). As an exception, non-monetary penalties are allowed in cases of violations committed by foreign vessels in the territorial sea causing a “wilful and serious act of pollution” (article 230(2) of UNCLOS).

Pollution incidents and emergencies at sea

In accordance with article 198 of UNCLOS, when a State becomes aware of cases in which the marine environment is in danger of being damaged or has been damaged by pollution, it must give immediate notification to other States likely to be affected by such damage and to the competent international organizations. Article 199 provides that the affected States shall co-operate with the competent international organizations, to the extent possible, in eliminating the effects of pollution and preventing or minimizing the damage. States are further required jointly to develop and promote contingency plans for responding to marine pollution incidents.
The OPRC provides a global framework for international co-operation in combating major oil pollution incidents or threats of marine pollution. In article 3(1)(a), the OPRC establishes that each Party shall require that ships entitled to fly its flag have on board a shipboard oil pollution emergency plan. In accordance with articles 5(1)(c) and 3, Parties are required to inform all States concerned and IMO in cases of major oil pollution incidents. Provisions concerning reports on incidents involving harmful substances are also contained in MARPOL, article 8 and Protocol I.

Article 7 of the OPRC further develops the main principles of international co-operation in pollution response. Paragraph 3 provides that, in accordance with applicable international agreements, each Party must take the necessary legal or administrative measures to facilitate the arrival and utilization in and departure from its territory of ships, aircraft and other modes of transport engaged in responding to an oil pollution incident or transporting personnel, cargoes, materials and equipment required to deal with such an incident.

Article 12 on institutional arrangements gives IMO important co-ordinating roles regarding the provision of information, education and training services, technical services and technical assistance.


2 FLAG STATE JURISDICTION

The obligation for flag States to adopt and enforce anti-pollution laws and regulations in compliance with international rules and standards adopted by IMO is included in articles 211(2) and 217 of UNCLOS respectively.

General obligations

In accordance with article 211(2), States must adopt laws and regulations for the prevention, reduction and control of pollution of the marine environment from vessels “flying their flag or of their registry”. Such laws and regulations must at least have the same effect as that of generally accepted international rules and standards (i.e. those contained in MARPOL) established though the competent international organization (IMO).

Article 217 exclusively addresses the enforcement of international rules and standards by flag States, and provides that such enforcement must take place “irrespective of where a violation occurs”.

Design and Equipment

In December 2003, the IMO Marine Environment Protection Committee (MEPC) adopted amendments to MARPOL which had the effect of accelerating the phasing out of single-hull tankers. Under a revised regulation 13G of Annex I of MARPOL, the final phasing-out date for Category 1 tankers (pre-MARPOL tankers) is brought forward from 2007 to 2005. The final phasing-out date for category 2 and 3 tankers (MARPOL tankers and smaller tankers) is brought forward from 2015 to 2010. In addition, the MEPC adopted new regulation 13H, requiring the carriage of heavy grade oil in single-hull tankers to be phased out by 2008.
Manning

In accordance with article 94(4)(c) of UNCLOS, flag States must ensure that the master, officers, and, to the extent appropriate, the crew are fully conversant with and observe the applicable international regulations concerning, *inter alia*, marine pollution.

STCW 78 includes the requirement of special training for masters in charge of oil or chemical tankers. The comprehensive 1995 amendments to this Convention establish a general obligation for the States Parties to ensure that seafarers on board ships are qualified and fit for their duties in connection with the safety of life and property at sea, as well as with the protection of the marine environment. Specific provisions on anti-pollution training not only for the crews of tankers but also for any other ships are contained in the annex to the Convention. Detailed regulations are laid down in the STCW Code.

Prohibition from sailing

In accordance with article 217(2) of UNCLOS, the flag State must ensure that vessels flying its flag or of its registry are prohibited from sailing until they can proceed to sea in compliance with the requirements of the international rules and standards established through the competent international organization (IMO) including those on the design, construction, equipment and manning of vessels. This provision in fact extends the scope of flag State jurisdiction over the design, construction, equipment and manning of vessels regulated in article 94(3) of UNCLOS: not only should this jurisdiction be exerted for the purpose of safety, as stated in this provision, but also in connection with the protection of the marine environment by operation of article 217(2).

Carriage and inspection of certificates

Article 217(3) of UNCLOS provides that States must ensure that vessels flying their flag or of their registry carry on board certificates required by and issued pursuant to international rules and standards established through the competent international organization (IMO). Provisions concerning conditions for the issue of mandatory certificates and the information which these certificates should contain are included in the technical annexes of MARPOL. This Convention also provides for the obligation of the flag State to undertake not only initial surveys as a prerequisite for the issue of certificates but also periodical and intermediate inspections and surveys, in order to verify that the certificates conform with the actual condition of the vessels.

IMO resolution A.997(25), which supersedes the guidelines adopted by resolution A.948(23), takes account of the Harmonized System of Survey and Certification in some of the instruments.

Conditions for the recognition of validity of certificates also addressed in article 217(3) are discussed in section 3 of this chapter.

Investigation of an alleged violation

Article 217(4) regulates the obligation of the flag State to provide for immediate investigation of a violation by its ships of rules and standards established through the competent international organization (IMO), irrespective of where the violation occurred or where the pollution caused by such violation has occurred or has been seen. Likewise, article 4 of MARPOL establishes the obligation of the flag State to institute proceedings as soon as possible with respect to any violation of the requirements of the Convention wherever it occurs, in accordance with its law.
Under article 217(5), the flag State, in order to investigate the violation, may request assistance from other States, which in turn must endeavour to meet such requests. Correlatively, article 217(6) states that flag States must, at the written request of any State, investigate any violation alleged to have been committed by vessels flying their flag. If satisfied that sufficient evidence is available to enable proceedings to be brought in respect of the alleged violation, the flag State must institute proceedings without delay. Several provisions in articles 4 and 6 of MARPOL elaborate in more detail the basic features of the cooperation between the Administration of the flag State and other States Parties. Both UNCLOS (article 217(7)) and MARPOL (article 4(3)) impose upon the flag State the obligation to inform the requesting State and “the competent international organization” (IMO), of the action taken and its outcome. That information must be available to all States. IMO may consider whether special publicity arrangements are needed for these purposes.

Penalties

UNCLOS (article 217(8)) establishes that penalties provided by the laws and regulations of the flag State shall be adequate in severity to discourage violations wherever they may occur. A similar obligation is imposed on States Parties to MARPOL (article 4(4)).

Notification of incidents

Article 211(7) of UNCLOS recommends that international anti-pollution rules and standards should include, inter alia, those relating to prompt notification of coastal States whose coastline or related interests may be affected by incidents, including maritime casualties, which involve discharges or probability of discharges. MARPOL (article 8 and Protocol I) contains provisions concerning reports on incidents involving discharge or probable discharge of harmful substances. Article 8 establishes the obligation for States to report without delay to other States likely to be affected by pollution incidents involving harmful substances. In accordance with article I of Protocol I, the master or other person having charge of any ship involved in an incident involving discharges or probable discharges of harmful substances should report the particulars of such incident without delay and to the fullest extent possible. Discharges include not only those resulting from maritime casualties but also those occurring, during the operation of the ship, of oil or noxious liquid substances in excess of the quantity or instantaneous rate permitted under MARPOL. Article V(1) of the Protocol establishes that reports should be made “by the fastest telecommunications channels available with the highest possible priority to the nearest coastal State”.

Under article 4 of OPRC, the flag State is responsible for requiring masters to report without delay to the nearest coastal State any event on their ship involving a discharge or probable discharge of oil.

3 PORT STATE JURISDICTION

Several provisions of UNCLOS refer to the jurisdictional powers of States over foreign ships voluntarily in their ports in connection with the implementation of anti-pollution measures. These provisions, which are explicitly extended to offshore terminals of a State, should be considered together with MARPOL regulations relating to the exercise of port State control. IMO resolution A.787(19) on Procedures for Port State Control, which has already been referred to in this document, contains a detailed interpretation of applicable IMO rules and standards and includes an explanation of the meaning of basic concepts involved in the exercise of port State jurisdiction, such as “clear grounds” (for believing that violations have taken place), “inspection”, and “detention”.

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General obligations

Article 219 of UNCLOS (Measures relating to seaworthiness of vessels to avoid pollution) establishes that port States shall, as far as practicable, take administrative measures to prevent the sailing of a vessel which has been found to be in violation of “applicable international rules and standards relating to seaworthiness of vessels and thereby threatens damage to the marine environment”. The concept of seaworthiness should be understood not only as embracing provisions concerning the design, construction, manning, equipment and maintenance of vessels regulated in IMO safety treaties but also those contained in MARPOL. Bearing in mind the principle of no more favourable treatment contained in article 5(4) of MARPOL, port States which are parties to this Convention are entitled to request compliance with preventive anti-pollution measures therein, also from ships flying the flag of non-parties.

In accordance with article 217(3) of UNCLOS, compliance with anti-pollution rules and standards must be attested by certificates required by and issued pursuant to international rules and standards established through the competent international organization (IMO) or general diplomatic conference. Article 217(3) establishes that these certificates must be accepted by other States as evidence of the condition of the vessels and must be regarded as having the same force as certificates issued by them, unless there are clear grounds for believing that the condition of the vessel does not correspond substantially with the particulars of the certificates. Further rules on the investigation of foreign vessels voluntarily in port are contained in article 226. These regulations reproduce the basic features relating to the inspection of certificates and ships contained in MARPOL, article 5. Paragraph 2 of this article refers to the inspection of certificates regulated in the technical annexes of this Convention.

Both UNCLOS (article 219) and MARPOL (article 5(2)) establish the basic principles governing the detention in port of foreign vessels: port States must ensure that vessels do not sail until they can proceed to sea without representing an unreasonable threat of damage to the marine environment (article 226(1)(c)). However, ships can be granted permission to leave port in order to proceed to the nearest appropriate repair yard. These measures can be taken without prejudice to the right of the port State to impose penalties in accordance with their national law for violation of anti-pollution rules and standards, even if this violation consists solely in the non-observance of preventive measures without any illegal discharge having taken place.

IMO recognizes that the primary responsibility for implementing the regulations provided for in IMO conventions rests with the flag State. However, it also acknowledges the need for port State control (PSC) with a view to promoting more effective implementation of all applicable standards for maritime safety and pollution prevention.

With the foregoing in mind, IMO has adopted a number of resolutions in respect of PSC over the years. In 1995, the 19th IMO Assembly adopted resolution A.787(19) amalgamating guidelines contained in relevant IMO resolutions, with the aim of providing one set of basic guidelines on the conduct of PSC inspections. In 1999 resolution A.882(21), amending the procedures for port State control, was adopted.

Member Governments, through the conduct of PSC inspections at their ports and discussions at IMO, realized that more effective PSC could be conducted by signing regional agreements. Accordingly, the following nine regional PSC agreements have been signed and are currently in operation:
.1 the Paris Memorandum of Understanding on Port State Control (Paris MoU), adopted in Paris on 1 July 1982;

.2 the Acuerdo de Viña del Mar (Viña del Mar or Latin-America Agreement), signed in Viña del Mar (Chile) on 5 November 1992;

.3 the Memorandum of Understanding on Port State Control in the Asia-Pacific Region (Tokyo MoU), signed in Tokyo on 1 December 1993;

.4 the Memorandum of Understanding on Port State Control in the Caribbean Region (Caribbean MoU), signed in Christchurch, Barbados on 9 February 1996;

.5 the Memorandum of Understanding on Port State Control in the Mediterranean Region (Mediterranean MoU), signed in Malta on 11 July 1997;

.6 the Indian Ocean Memorandum of Understanding on Port State Control (Indian Ocean MoU), signed in Pretoria, South Africa on 5 June 1998;

.7 the Memorandum of Understanding for the West and Central African Region (Abuja MoU), signed in Abuja, Nigeria on 22 October 1999;

.8 the Memorandum of Understanding on Port State Control in the Black Sea signed in Istanbul, Turkey on 7 April 2000; and

.9 the Arab States of the Gulf (Riyadh MoU), signed in Riyadh, 2004.

Discharge violations

UNCLOS provisions concerning measures to be taken by port States in the event of discharge in violation of international rules and standards are contained in article 218. Paragraph 1 of this article expressly authorizes port States to institute proceedings in respect of foreign ships voluntarily in their ports in cases where illegal discharges have occurred outside the internal waters, territorial sea or EEZ of the port State. Paragraphs 2, 3 and 4 regulate situations involving requests to the port State from the flag State as well as coastal States regarding discharge violations of applicable international rules and standards. Violations by a foreign ship voluntarily in port which have been committed within the territorial sea or EEZ of a State are dealt with in article 220 of the Convention. In both cases the State into whose port the vessel has voluntarily come should apply MARPOL rules and standards.

Action to be taken in the event of violations of regulations on discharges are contained in article 6(2) of MARPOL. This provision establishes that ships to which the Convention apply may, in any port of a Party, be subject to inspection by officers appointed or authorized by that Party “for the purposes of verifying whether the ship has discharged any harmful substances in violation of the provisions of the regulations”. Other provisions in the same article deal with communications with the Administration of the flag State and other States affected by the violation, as well as the rules governing institution of proceedings.

Reception facilities

As previously noted, article 211 lays down a general obligation for States to co-operate in the establishment of international rules and standards regarding pollution from ships. The main
international treaty implementing this obligation is MARPOL 73/78, which sets out requirements for port reception facilities, and all parties to the Convention are obliged to provide reception facilities for ships calling at their ports. The requirement for such reception facilities is especially necessary in “special areas” where, because of the vulnerability of these areas to pollution, more stringent discharge restrictions have been imposed. MARPOL 73/78 also provides that these reception facilities should, in each case, be “adequate” for the reception of wastes from ships without causing undue delay to the ships using them.

However, while ships are subject to both survey and certification by the flag State Administration and port State control, the responsibility for providing reception facilities is a matter only for port States, and progress in this regard has not been satisfactory. In order to address the matter, IMO has developed a number of guidelines, the most recent of which have been published as a “Comprehensive Manual on Port Reception Facilities”. The manual provides guidance on matters such as waste management strategy, type and quantity of ship-generated wastes, planning, choice of location, collection and treatment, financing and cost recovery, and co-operation of port and ship requirements. IMO has also provided technical assistance over many years to a large number of countries in the form of seminars, symposia and workshops, mostly at the regional level. Progress has been made in certain parts of the world. It is apparent, however, that, in some oil producing regions, the situation with regard to the provision of reception facilities is not improving.

The provision of adequate reception facilities worldwide is a matter of extreme complexity which involves the shipping industry, port operators, oil and chemical companies and Governments. A satisfactory solution to the shortage of reception facilities in many parts of the world has yet to be found. It is widely recognized that, if this problem is to be satisfactorily resolved, it will be necessary to address the economic as well as the technical aspects of this issue.

At its forty-fourth session in March 2000, the MEPC adopted “Guidelines for ensuring the adequacy of reception facilities” (resolution MEPC.83(44)).

The MEPC, at its fifty-fifth session in October 2006, approved an Action Plan to tackle the alleged inadequacy of port reception facilities. The Plan contains a list of proposed work items to be undertaken by IMO with the aim of improving the provision and use of adequate port reception facilities, including items relating to reporting requirements; provision of information on port reception facilities; identification of any technical problems encountered during the transfer of waste between ship and shore and the standardization of garbage segregation requirements and containment identification; review of the type and amount of wastes generated on board and the type and capacity of port reception facilities; revision of the IMO Comprehensive Manual on Port Reception Facilities; and development of a Guide to Good Practice on Port Reception Facilities. With regard to regional arrangements, the Committee agreed to recognize them as a means to provide reception facilities in light of the MARPOL requirements, taking into account the benefit of having such regional arrangements in place.

Undue delay to ships

UNCLOS (article 226(1)(a)) provides that States must not delay a foreign vessel longer than is essential for the purposes of investigating violations of international rules and standards. MARPOL (article 7(1)) establishes that port States should make all possible efforts to avoid a ship being unduly detained or delayed in connection with such investigations.
Special provisions on single-hull tankers

In December 2003, IMO adopted a revised, accelerated phase-out scheme for single-hull tankers, along with other measures including an extended application of the Condition Assessment Scheme (CAS) for tankers and a new regulation banning the carriage of Heavy Grade Oil (HGO) in single-hull tankers.

The amendments to the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 thereto (MARPOL 73/78) were adopted at the fiftieth session of IMO’s Marine Environment Protection Committee (MEPC) and entered into force on 5 April 2005, under the tacit acceptance procedure.

4 COASTAL STATE JURISDICTION

Routeing measures

Article 211(1) of UNCLOS prescribes that States, acting through the competent international organization or general diplomatic conference, shall promote the adoption of routeing systems designed to minimize the threat of accidents which might cause pollution of the marine environment, including the coastline and related interests of coastal States. As mentioned in the previous chapter dealing with safety of navigation, IMO is the competent international organization for developing guidelines and regulations on ships’ routeing systems, and comments made under that chapter apply to the prevention of marine pollution. In this regard, mention should be made of new SOLAS regulation V/8, (a) and (j) (see V/10 in the text of SOLAS chapter V as amended by MSC in 2000). According to paragraph (a), ships' routeing systems should also be established bearing in mind the need to protect the marine environment. Paragraph (j) requires that routeing systems comply with UNCLOS.

The General Provisions on Ships’ Routeing (resolution A.572(14) adopted by the IMO Assembly in 1985) were amended in 1995 by the insertion of new paragraphs 3.6 and 3.7, which deal with routeing systems for the protection of environmentally sensitive areas. Paragraph 3.6 establishes the criteria to be taken into account when considering the adoption of a routeing system for the protection of the marine environment. Paragraph 3.7 sets limits for the adoption of routeing systems. In accordance with this paragraph IMO should not adopt a system that would impose unnecessary constraints on shipping, or establish an area to be avoided that would impede the passage of ships through an international strait. In November 1997, the IMO Assembly adopted resolution A.858(20) by which it delegated to the MSC the function of adopting traffic separation schemes and routeing measures other than traffic separation schemes, including the designation and substitution of archipelagic sea lanes.

Territorial sea

In accordance with article 21(1) of UNCLOS the coastal State may adopt rules and regulations “in conformity with the provisions of this Convention and other rules of international law, relating to innocent passage through the territorial sea in respect of ... (f) the preservation of the environment of the coastal State and the prevention, reduction and control of pollution thereof”. In this connection, article 211(4) establishes that coastal States may “in the exercise of their sovereignty within their territorial sea, adopt laws and regulations for the prevention, reduction, and control of marine pollution from foreign vessels, including vessels exercising the right of innocent passage”. This provision is complemented by a reference to the need not to hamper innocent passage of foreign vessels. The regulatory powers of the coastal State in this regard are limited in accordance with article 21(2): in the case of anti-pollution measures, laws and regulations adopted
by the coastal State shall not apply to the design, construction, manning, or equipment of foreign ships unless they are giving effect to generally accepted international rules and standards, in this case also to those contained in MARPOL.

Article 220(2) of UNCLOS regulates the right of intervention of the coastal State in the territorial sea in connection with the violation of international rules and standards for the prevention, reduction and control of pollution from vessels, namely those rules and standards adopted at IMO. In accordance with article 220(5), the coastal State may undertake physical inspection of a vessel navigating in its territorial sea where there are clear grounds for believing that such vessel has committed a violation of the international rules and standards for the prevention, reduction and control of pollution from vessels while navigating in the EEZ of the coastal State. Where evidence so warrants, the coastal State may institute proceedings, including detention of the vessel in accordance with its laws.

**Exclusive Economic Zone**

Article 56(1)(b)(iii) of UNCLOS provides that in the EEZ the coastal State has jurisdiction with regard to the protection and preservation of the marine environment. In exercising this jurisdiction the coastal State is empowered to enact laws and regulations for the prevention, reduction, and control of vessel-source pollution in the EEZ. Such laws and regulations must, in accordance with article 211(5) of UNCLOS, conform to and give effect to “generally accepted international rules and standards established through the competent international organization” (IMO).

Several provisions of UNCLOS regulate the rights of the coastal State in cases of violations to international anti-pollution rules and standards committed in the EEZ by vessels navigating either in the EEZ or the territorial sea:

- If there are clear grounds for believing that such a violation has taken place, the State may, in accordance with article 220(3), require the vessel to give information regarding its identity and port of registry, its last and next port of call and other relevant information required to establish whether a violation has occurred.

- If there are clear grounds for believing that a vessel has committed a violation resulting in a substantial discharge causing or threatening significant pollution of the marine environment, the coastal State may, in accordance with article 220(5), undertake physical inspection of the vessel for matters related to the violation if the vessel has refused to give information or if the information supplied by the vessel is manifestly at variance with the evident factual situation, and if the circumstances of the case justify such inspection.

- Article 220(6) establishes that if there is “clear objective evidence” that a vessel has committed a violation resulting in a discharge causing major damage or threat of major damage to the coastline or related interest of the coastal State, or to any of its resources of the territorial sea or the EEZ, the State may, provided that the evidence so warrants, institute proceedings, including detention of the vessel.

**Intervention in case of a major incident beyond the territorial sea**

Article 221(1) recognizes the rights of States, “pursuant to international law, both customary and conventional, to take and enforce measures beyond the territorial sea proportionate to the actual or threatened damage to protect their coastline or related interests, including fishing,
from pollution or threat of pollution following upon a maritime casualty … which may reasonably be expected to result in major harmful consequences”.

This provision echoes the main features of the right of intervention by the coastal States regulated by the Intervention Convention of 1969 and its Protocol of 1973, in respect of incidents involving, respectively, a major discharge of oil or of substances other than oil. These treaties refer solely to the right of intervention on the high seas because the concept of EEZ was not known at the time of their adoption. Following the entry into force of UNCLOS, the regulations on the right of the coastal State laid down in both IMO treaties should be considered as applicable both to the EEZ and to the high seas.

Special mandatory measures

In accordance with article 211(6) of UNCLOS the coastal State may adopt special mandatory measures for the prevention of vessel-source pollution in certain clearly defined areas of its EEZ. To justify the adoption of such measures, evidence must indicate that the existing international rules and standards are inadequate for the special circumstances of the area concerned. The area must be clearly defined and the adoption of special measures must be required for recognized technical reasons in relation to the oceanographical and ecological conditions, as well as the utilization or protection of the resources and the particular character of the traffic of the area concerned.

Article 211(6)(a) and (b) includes specific conditions for the adoption of special mandatory measures:

- the coastal State should conduct appropriate consultations through the “competent international organization” (IMO) with other States concerned. It should also submit a communication to IMO for special mandatory measures, supported by scientific and technical evidence and information on reception facilities;

- IMO, within 12 months of receiving the communication, shall determine whether the conditions in the proposed area justify the adoption of special mandatory measures;

- following a decision by IMO, the coastal State may adopt laws and regulations implementing such international rules and standards or navigational practices as are made applicable, through the organization (IMO), for special areas. These laws shall not become applicable to foreign vessels until 15 months after the submission of the communication to the organization (IMO);

- the coastal State must publish the limits of the area where the special mandatory measures are to be enforced.

In accordance with article 211(6)(c) the coastal State may enact for the same area additional laws and regulations on discharges or navigational practices. However, these laws and regulations must not require foreign vessels to observe design, construction, manning or equipment standards other than generally accepted international rules and standards. If the coastal State intends to adopt additional laws and regulations it must notify the organization (IMO) thereof at the time it submits the communication referred to above.
In accordance with article 220(8) of UNCLOS, the provisions on enforcement contained in article 220(3) to (7) also apply to the enforcement of national laws and regulations implementing special mandatory measures pursuant to article 211(6).

**Special areas and particularly sensitive sea areas (PSSAs)**

Special mandatory requirements for certain areas regarding the prevention of operational discharges of harmful substances are contained in Annexes I, II, and V of MARPOL. Guidelines for the designation of Special Areas under MARPOL are formulated in resolution A.927(22) on guidelines for the designation of special areas and the identification of particularly sensitive sea areas adopted by the IMO Assembly in 2001. Annex VI - Regulations for the Prevention of Air Pollution from Ships, establishes certain sulphur oxide (SOx) Emission Control Areas with more stringent controls on sulphur emissions.

A comparison between areas requiring special mandatory measures mentioned in article 211(6) of UNCLOS and provisions on special areas under MARPOL indicates that, while the former are restricted in jurisdictional scope to the EEZ, the MARPOL special area provisions cover enclosed or semi-enclosed areas which may include parts of the territorial sea, the EEZ and the high seas.

While MARPOL special requirements apply only to the discharge of harmful substances, article 211(6) of UNCLOS does not contain any specification as to the kind of measures that may be taken.

To date, 10 special areas have been designated under MARPOL Annex I (Mediterranean Sea, Baltic Sea, Black Sea, Red Sea, “Gulf’s” area, Gulf of Aden, Antarctic area, North West European Waters, Oman area of the Arabian Sea, Southern South African waters). One special area has been designated under Annex II (Antarctic area), eight special areas have been designated under Annex V (Mediterranean Sea, Baltic Sea, Black Sea, Red Sea, “Gulf’s” area, North Sea, Antarctic area (south of latitude 60 degrees south), Wider Caribbean region including the Gulf of Mexico and the Caribbean Sea). Owing to the absence of adequate reception facilities, some of those areas have not yet taken effect. Two SOx Emission Control Areas have been designated under Annex VI (Baltic Sea, North Sea).

The Assembly, at its twenty-fourth session, adopted revised Guidelines for the Identification and Designation of Particularly Sensitive Sea Areas (PSSAs) (resolution 982(24)). A PSSA is an area that needs special protection through action by IMO because of its significance for recognized ecological, socio-economic, or scientific attributes where such attributes may be vulnerable to damage by international shipping activities. An application for PSSA designation should contain a proposal for an associated protective measure or measures aimed at preventing, reducing or eliminating the threat or identified vulnerability. Associated protective measures for PSSAs are limited to actions that are to be, or have been, approved and adopted by IMO, for example, a routing system such as an area to be avoided.

The guidelines provide advice to IMO Member Governments in the formulation and submission of applications for the designation of PSSAs to ensure that, in the process, all interests – those of the coastal State, flag State, and the environmental and shipping communities – are thoroughly considered on the basis of relevant scientific, technical, economic, and environmental information regarding the area at risk of damage from international shipping activities.
In order to ensure the proper development, drafting and submission of proposals in accordance with the Guidelines, the MEPC approved a revised guidance document for the preparation of PSSAs proposals at its fifty-fourth session.

The following 12 PSSAs have been designated to date: the Great Barrier Reef (Australia); the Sabana-Camagüey Archipelago (Cuba); Malpelo Island (Colombia); the sea around the Florida Keys (United States of America); the Wadden Sea (Denmark, Germany, the Netherlands); Paracas National Reserve (Peru); Western European Waters (Belgium, France, Ireland, Portugal, Spain and the United Kingdom); Extension of the existing Great Barrier Reef PSSA to include the Torres Strait (Australia and Papua New Guinea); Canary Islands (Spain); the Galápagos Archipelago (Ecuador); the Baltic Sea area (Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland and Sweden); and the Papahānaumokuākea Marine National Monument (United States of America).

**States bordering straits used for international navigation and archipelagic States**

Article 42(1)(b) of UNCLOS empowers States bordering straits used for international navigation to adopt laws and regulations relating to transit passage through the strait in respect of the prevention, reduction and control of pollution, by giving effect to “applicable international regulations regarding the discharge of oil, oily wastes and other noxious substances in the strait”. National legislation adopted in this regard must not discriminate among foreign ships or have the practical effect of impairing the right of transit passage (article 42(2)). In accordance with article 39(2)(b), ships in transit must comply with “generally accepted international regulations, procedures and practices for the prevention, reduction and control of pollution from ships”, namely MARPOL and other relevant IMO instruments.

UNCLOS (article 43(b)) provides that user States and States bordering straits should by agreement co-operate for the prevention, reduction and control of vessel-source pollution. There are currently no specific international instruments regulating this matter. Thus, IMO may consider whether adoption of international regulations in this regard may be necessary.

By virtue of article 54 of UNCLOS, the rights and obligations of flag and coastal States regarding the prevention, reduction and control of pollution in accordance with applicable international regulations regarding the discharge of oil, oily wastes and other noxious substances in international straits apply *mutatis mutandis* to archipelagic sea lane passage.

UNCLOS includes a specific provision on the enforcement powers of States bordering straits used for international navigation. Under article 233 of UNCLOS, States bordering straits are entitled to take enforcement measures against ships in transit passage only if the ship has committed a violation of the laws and regulations referred to in article 42(1)(a) and (b) of UNCLOS causing or threatening major damage to the marine environment of the straits. In such a case, the enforcement measures taken by the bordering State are subject to the safeguards of part XII, section 7 of UNCLOS.

**B DUMPING AT SEA OF WASTES AND OTHER MATTER**

**General**

UNCLOS includes a definition of “dumping” in article 1(5). Article 210 contains regulations specifically related to the prevention, reduction and control of pollution by dumping. The obligation for States to adopt laws and regulations and to take other measures that may be needed to prevent, reduce and control pollution of the marine environment by dumping is contained in paragraphs 1 and 2. In accordance with paragraph 6 such laws, regulations and measures shall
be no less effective in preventing, reducing and controlling such pollution than the “global rules and standards”.

In this connection, article 210(4) imposes upon States the obligation to endeavour to establish global and regional rules and standards and recommended practices and procedures to prevent, reduce and control pollution by dumping. Such provisions should be adopted through “competent international organizations or diplomatic conference”. The reference in the plural to international organizations indicates that in this case the task of IMO at global level can be complemented by regulatory activities undertaken under the auspices of other organizations. Co-operation between IMO and other organizations has been implemented, especially in connection with the adoption of regional agreements.

The international global and regional framework which has been established in this regard consists of several treaties and agreements. At a global level, anti-pollution measures are contained in the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972 (London Convention, 1972), as periodically amended by decisions of its Contracting Parties. In 1996 the Contracting Parties to the London Convention adopted the Protocol to the Convention on the Prevention of Marine Pollution by the Dumping of Wastes and Other Matter, 1972 (1996 LC Protocol) which comprehensively and substantially amends the parent convention. Eventually, the 1996 LC Protocol will replace the Convention.

Since 1977, IMO has been responsible for the performance of secretarial functions such as the organization and servicing of the Consultative Meetings of the Contracting Parties to the London Convention and other subsidiary bodies reporting to the Consultative Meetings. Similar functions, as well as depositary functions, are regulated in the 1996 LC Protocol. The Protocol further expands the tasks of IMO by assigning to the Organization, inter alia, the duties of providing advice on implementation and, subject to availability of adequate resources, collaborating in environmental assessments and co-operating with competent international organizations concerned with the prevention and control of pollution. The Protocol assigns IMO the roles of co-ordination and co-operation regarding technical co-operation activities in the field of training, and access to and transfer of environmentally sound technologies and know-how to developing countries. The 1996 LC Protocol entered into force in March 2006.

The Contracting Parties to the London Protocol, at their first meeting held in London from 30 October to 3 November 2006, adopted amendments to the 1996 LC Protocol. The amendments regulate the sequestration of CO₂ streams from CO₂ capture processes in sub-seabed geological formations.

Parties also agreed that guidance on the means by which sub-seabed geological sequestration of carbon dioxide can be conducted should be developed as soon as possible. This will, when finalized, form an important part of the regulation of this activity.

This means that a basis has been created in international environmental law to regulate carbon capture and storage (CCS) in sub-seabed geological formations, for permanent isolation, as part of a suite of measures to tackle the challenge of climate change and ocean acidification, including, first and foremost, the need to further develop low carbon forms of energy. In practice, this option would apply to large point sources of CO₂ emissions, including power plants, steel and cement works.

The Meeting of Contracting Parties, at its twenty-ninth session in 2007, adopted “Specific Guidelines for Assessment of Carbon Dioxide Streams for Disposal into Sub-seabed Geological Formations”. The Guidelines will be kept under review and updated in five years’ time, or earlier.
as warranted in light of new developments. These Guidelines complement the 2006 amendments on CO₂ sequestration in sub-seabed geological formations under resolution LP.1(1).

A Legal and Technical Working Group on Transboundary CO₂ Sequestration Issues was also established by the twenty-ninth Consultative Meeting of Contracting Parties to the London Convention to analyze all realistic scenarios by which CO₂ streams intended for sequestration in sub-seabed geological formations are collected, treated, transported and sequestered, in cases involving transboundary movements of CO₂ streams. The Group met from 25-27 February 2008 and considered whether and how the transboundary movement of CO₂ for and during sub-seabed sequestration in geological formations relates to Article 6 of the London Protocol, and whether an amendment to this provision was necessary. The recommendations of the Working Group will be considered at the thirtieth session of the Meeting of Contracting Parties to the London Convention and the third meeting of the Parties to the London Protocol. An amendment to Article 6 of the London Protocol was proposed regarding the “Export of wastes and other matter” to include an exception to the prohibition of export of wastes in the case of transboundary movements, including migration of CO₂ streams, for disposal provided, inter alia, that there is a consent of the receiving State, and that the disposal is made in compliance with the requirement of annex 2 of the London Protocol.

In its resolution 62/215 of 22 December 2007, the General Assembly welcomed the decision of the twenty-ninth Consultative Meeting of Contracting Parties to the London Convention and second meeting of the Parties to the London Protocol, which endorsed the June 2007 “Statement of concern” on large scale fertilization by the Scientific Groups of the London Convention and Protocol; recognized that it was within the purview of each State to consider proposals on a case-by-case basis in accordance with the London Convention and Protocol; urged States to use the utmost caution when considering proposals for large-scale ocean fertilization operations; and took the view that, given the present state of knowledge regarding ocean fertilization, such large-scale operations were currently not justified.

Relationship with UNCLOS

Bearing in mind the provisions relating to the need prescribed in article 237 of UNCLOS for compatibility between this Convention and environmental treaties, the Eleventh Consultative Meeting of Contracting Parties agreed in 1988 that there were “no fundamental inconsistencies” between UNCLOS and the London Convention 1972. At their Seventeenth Consultative Meeting held in 1994, the Contracting Parties expressed their opinion that States Parties to UNCLOS would be legally bound to adopt laws and regulations and take other measures to prevent, reduce and control pollution by dumping. In accordance with article 210(6) of UNCLOS, these laws and regulations must be no less effective than the global rules and standards contained in the London Convention.

The Seventeenth Consultative Meeting further noted that States which are Parties to both UNCLOS and the London Convention 1972 could be called upon to carry out specific obligations assumed by them under UNCLOS. In compliance with a decision taken at the meeting, the Secretary-General of IMO wrote to States Parties to UNCLOS which are not Parties to the London Convention 1972, drawing attention to their obligations relating to the provisions concerning the prevention of marine pollution by dumping, and the objectives and achievements of the London Convention 1972.

In its resolution 62/215 of 22 December 2007, the General Assembly encouraged States that have not yet done so to become parties to the 1996 London Protocol.
Relationship with regional agreements

Article VIII of the London Convention encourages Contracting Parties with common interests in a given geographical area to enter into regional agreements consistent with the Convention “for the prevention of pollution, especially by dumping”, taking into account characteristic features of the region’s marine environment. The contents of these agreements should be consistent with those of the Convention. Non-parties to these regional agreements, although not legally bound by them, should endeavour to act consistently within them. Regional agreements compatible with the London Convention have been concluded within the framework of the Regional Seas Programme developed by the United Nations Environment Programme (UNEP). The implementation of this programme has resulted in the adoption of several regional conventions and protocols, some of which include provisions concerning the prevention of marine pollution by dumping. This is the case of the Mediterranean Sea Convention, the South Pacific Convention and the Black Sea Convention. The South East Pacific Convention also includes provisions regarding the prevention of marine pollution by disposal of radioactive wastes at sea.

Flag State jurisdiction

Article 216(1)(b) of UNCLOS requires the flag State to enforce with regard to vessels flying its flag or vessels or aircraft or its registry the laws and regulations adopted in accordance with the Convention and applicable international rules and standards adopted through the competent international organizations or diplomatic conference for the prevention, reduction and control of pollution of the marine environment by dumping. The London Convention (article VII(1)(a)) requires each Contracting Party to apply the measures required to implement the Convention to vessels and aircraft registered in its territory or flying its flag.

The application of the London Convention to all sea areas is established by way of interpretation of the definition of “sea” included in article 1 of the Convention, which makes the global rules and standards contained therein applicable to all marine waters other than the internal waters of States. Bearing in mind decisions which had already been taken and implemented by Contracting Parties, the 1996 Protocol extends the concept specifically to include the seabed and the subsoil thereof, to the exclusion of sub-seabed repositories accessed only from land.

Coastal State jurisdiction

According to UNCLOS (article 210(5)), dumping within the territorial sea and the EEZ or onto the continental shelf must not be carried out without the express prior approval of the coastal State. The coastal State is required by article 216(1) of UNCLOS to enforce laws and regulations adopted in accordance with the Convention and applicable international rules and standards established through the competent international organizations or diplomatic conference for the prevention, reduction and control of pollution of the marine environment by dumping. The Eleventh Consultative Meeting of Contracting Parties agreed that a Party could apply the London Convention 1972 not only in its territorial waters, as specifically stated in this Convention, but also in the EEZ.

The London Convention contains specific regulations establishing the conditions which coastal States should follow in the granting of permits for dumping in their jurisdictional waters. Annex I to the Convention includes a list of substances the dumping of which is entirely forbidden. Substances which are part of the list contained in Annex II require a prior special permit from the coastal State. The dumping of all other substances not listed in either Annex I or II requires a prior general permit. This system is decisively reversed by the 1996 LC Protocol which establishes a general prohibition on dumping of all wastes and other matter, except for those belonging to one of
the seven categories listed in Annex 1 to the Protocol, namely dredged material, sewage sludge, fish waste or material resulting from industrial fish processing operations, vessels and platforms or other man-made structures, inert, inorganic geological material, organic material of natural origin and bulky items comprising unharmed materials. These wastes or other matter may be considered for dumping provided they do not contain levels of radioactivity greater than *de minimis* (exempt) concentrations as defined by the IAEA.

C OTHER SOURCES OF MARINE POLLUTION

Air pollution

Within the framework of articles 212(3) and 222 of UNCLOS, IMO is competent to establish global rules and standards applicable to vessels on the prevention and control of marine pollution from or through the atmosphere. States must adopt national laws in this field, taking account of internationally agreed rules and standards (UNCLOS article 212(1)). In this regard, States must take account, *inter alia*, of relevant IMO regulations. States are further under obligation to enforce their laws and regulations and to implement applicable rules and standards adopted internationally.


The Conference also invited the MEPC to consider what CO₂ reduction strategies may be feasible in light of the relationship between CO₂ and atmospheric pollutants, especially NOₓ, since NOₓ emissions may exhibit an inverse relationship to CO₂ reductions. Annex VI entered into force on 19 May 2005.

IMO Assembly resolution A.963(23) on *IMO Policies and Practices Related to Reduction of Greenhouse Gas Emissions from Ships* urges the MEPC to identify and develop mechanisms to achieve the limitation or reduction of greenhouse gases emissions from international shipping and keep the matter under review.

MEPC, at its fifty-fourth session approved two circulars aimed at assisting implementation of MARPOL Annex VI:

- The MEPC Circular on *Bunker Delivery Note and Fuel Oil Sampling*, clarifies how to comply with regulation 18, which places requirements on ship owners and fuel oil suppliers in respect of bunker delivery notes and representative samples of the fuel oil received and on Parties to the 1997 Protocol to regulate the bunker suppliers in their ports. The circular urges all Member States, both Parties and non-Parties to the 1997 Protocol, to require fuel oil suppliers in their ports to comply with the requirements and to raise awareness of the necessity to enhance implementation and enforcement of regulation 18 of Annex VI.

- The MEPC circular on *Notification to the Organization on ports or terminals where volatile organic compounds (VOCs) emissions are to be regulated* notes that regulation 15 of Annex VI requires Parties to inform the Organization of their intention to introduce requirements for the use of vapour emission control systems and to notify the Organization of ports and terminals under their jurisdiction where such requirements are already in force. However, many terminals are implementing
or operating such practices without notification to the Organization. The Committee shared the concern that, since there is no circulation of such information, it is difficult for owners and operators to prepare for these changes at ports and terminals. The circular reiterates that Parties to the 1997 Protocol are required to notify the Organization without delay with information on ports and terminals under their jurisdiction at which VOCs emissions are or will be regulated, and on requirements imposed on ships calling at these ports and terminals. Any information received by the Organization on the availability of vapour emission control systems will be circulated through MEPC circulars so that owners and operators will have up-to-date information on current and future requirements for the utilization of such systems.

With regard to the work on reduction of greenhouse gas emissions from ships, the MEPC, at its fifty-sixth session, confirmed the need to update the 2000 IMO GHG Study, and agreed on a timeframe, scope and terms of reference for that purpose. The study, it agreed, should cover current global inventories of GHGs and relevant substances emitted from ships engaged in international transport; any methodological aspects and future emission scenarios; identify progress made to date in reducing GHG emissions and other substances; identify possible future measures to reduce emissions of GHGs and undertake a cost benefit analysis, including environmental and public health impacts, of options for current and future reductions in GHG emissions and other relevant substances from international shipping. Finally, it should identify the impact of emissions from shipping on climate change.

MEPC at its fifty-seventh session approved proposed amendments to the MARPOL Annex VI regulations to reduce harmful emissions from ships.

The main changes would be a progressive reduction in sulphur oxide (SOx) emissions from ships, with the global sulphur cap reduced initially to 3.50% (from the current 4.50%), effective from 1 January 2012; then progressively to 0.50%, effective from 1 January 2020, subject to a feasibility review to be completed no later than 2018.

The revised Annex VI will allow for an Emission Control Area to be designated for SOx and particulate matter, or NOx, or all three types of emissions from ships, subject to a proposal from a Party or Parties to the Annex which would be considered for adoption by the Organization, if supported by a demonstrated need to prevent, reduce and control one or all three of those emissions from ships.

IMO is working expeditiously with the aim of adopting in 2009 a legally binding instrument that actually reduces the CO2 emission from international shipping and its impact on climate change and ocean acidification.

Pollution from seabed activities

Article 208(1) of UNCLOS provides that coastal States shall establish national laws for the control of marine pollution from seabed activities including artificial islands, installations and structures under national jurisdiction. These laws shall be no less effective than “international rules, standards and recommended practices and procedures” which may be established through “competent international organizations” on a global or regional level (UNCLOS article 208(2) and (5)). States shall also enforce their national legislation and take other measures necessary to implement “applicable international rules and standards” established through competent international organizations (UNCLOS, article 214).
IMO has contributed to the establishment of global rules and standards for the prevention and control of this type of pollution. Regulation 21 in Annex I of MARPOL contains special requirements for drilling rigs and other platforms. The Code for the Construction and Equipment of Mobile Offshore Drilling Units, 1989 (MODU Code), recommends design criteria, construction standards and other safety measures for mobile offshore drilling units so as to minimize not only risks to such units and to the personnel on board, but also environmental risks which could arise from a collision between vessels and offshore installations and structures. In this regard, IMO resolution A.671(16) establishes recommendations on safety of navigation around offshore installations and structures.

MARPOL applies to pollution from “fixed or floating platforms” other than pollution resulting from the “release of harmful substances directly arising from the exploration, exploitation and associated offshore processing of seabed mineral resources” (article 2). In this regard Annex I, regulation 21 lays down special oil discharge requirements for drilling rigs and other platforms.

Both the London Convention (article IV(1)(c)) and the 1996 Protocol (article 1.4.3) exclude governance of “disposal of wastes” directly arising from seabed activities. In article 1.4.3 of the 1996 Protocol, this exclusion was extended to “storage of wastes” to address the storage of excess gas produced in offshore wells and the need to avoid an inadvertent prohibition of this practice.

Harmful aquatic organisms in ballast water

The IMO Council convened a diplomatic conference on ballast water management in February 2004, at which the International Convention for the Control and Management of Ships’ Ballast Water and Sediments was adopted. The Convention will enter into force 12 months after ratification by 30 States representing 35% of world merchant shipping tonnage. To date 12 countries representing 3.46% of the world tonnage have become contracting States.

The MEPC, at its fifty-fifth session, in 2006, adopted the following guidelines, which are part of a series developed to assist in the implementation of the (BWM Convention).

- ballast water exchange design and control standards (G11);
- design and construction to facilitate sediment control on ships (G12);
- designation of areas for ballast water exchange (G14);
- sediment reception facilities (G1); and
- ballast water reception facilities (G5).

The MEPC, at its fifty-sixth session, adopted three sets of guidelines for additional measures regarding ballast water management, including emergency situations (G13), risk assessment under regulation A-4 of the BWM Convention (G7) and ballast water exchange in the Antarctic Treaty Area.

IMO resolution A.1005(25) Application of the International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004 was adopted to provide certainty and confidence in the application of the BWM Convention, thereby assisting shipping companies, ship owners, managers and operators, as well as the shipbuilding and equipment manufacturing industries, in the timely planning of their operations. The resolution addresses concerns over implementation of the Convention for vessels constructed in 2009, given the uncertainties as to
whether type-approved technology would be immediately available for these ships. It allows for certain new ships built in 2009 to be exempted, if such technologies are not available, and calls on States, which have not yet done so, to ratify, accept, approve or accede to the Convention as soon as possible.

**Harmful effects of the use of anti-fouling paints for ships**

Since 1988, the MEPC has been considering measures to reduce the harmful effects of the use of “anti-fouling” paint which are intended to keep organisms such as barnacles from clinging to ships hulls, but which disperse an active substance that contaminates the marine environment and can damage or destroy biological systems (such as oyster beds). In 1999, the Assembly adopted resolution A.895(21) on *Anti-Fouling Systems Used on Ships*. This resolution called for a ban on the use of certain compounds in anti-fouling systems by 2008, and called on the MEPC to develop a legally-binding instrument to this effect. The MEPC subsequently prepared a text of a draft International Convention on the Control of Harmful Anti-fouling Systems on Ships. This convention was adopted by a diplomatic conference held in October 2001.

Following accession by Panama on 17 September 2007, the Convention had been ratified by 25 States, with a combined 38.11 per cent of world merchant shipping tonnage, and will therefore enter into force on 17 September 2008. As of 31 August 2008, the Convention has been ratified by 33 States, with a combined 52.55 per cent of world merchant shipping tonnage.

**Ship recycling**

MEPC has been considering IMO’s role regarding the scrapping of ships or ship recycling, with the intention of reducing pollution from ships in connection with such recycling and reducing the risk to human health and the environment at recycling yards. This issue concerns the International Labour Organization (ILO), the Basel Convention under UNEP, and IMO. In this respect, IMO developed guidelines on ship recycling which were adopted by the Assembly in 2003 (resolution A.962(23)). These guidelines seek to encourage recycling as the best means to dispose of ships at the end of their operating lives, provide guidance in respect of the preparation of ships for recycling and minimising the use of potentially hazardous materials and waste generation during a ship’s operating life, foster inter-agency co-operation, and encourage all stakeholders to address the issue of ship recycling.

MEPC, at its fifty-third session, in 2005 approved amendments to the IMO Guidelines on Ship Recycling.

MEPC also agreed that the IMO should develop, as a high priority, a new instrument on recycling of ships with a view to providing legally binding and globally applicable ship recycling regulations for international shipping and for recycling facilities. It is anticipated that the instrument will be adopted in the biennium 2008-2009.
CHAPTER III

LIABILITY FOR POLLUTION DAMAGE

Article 235(2) of UNCLOS regulates the obligation for States to ensure that “recourse is available in accordance with their legal systems for prompt and adequate compensation or other relief in respect of damage caused by pollution of the marine environment by natural or juridical persons under their jurisdiction”. Paragraph 3 provides that, with the objective of assuring prompt and adequate compensation in respect of damage caused by pollution of the marine environment, where appropriate, States shall co-operate in the development of international law setting out criteria and procedures for payment of adequate compensation, such as compulsory insurance or compensation funds.

These provisions should be considered in connection with several treaty instruments adopted by IMO prior to, and after the adoption of, UNCLOS in the field of liability and compensation for damage related to the carriage of oil and other hazardous and noxious substances by sea. These instruments are:

- International Convention on Civil Liability for Oil Pollution Damage, 1969, and the 1992 Protocol thereto (the Civil Liability Convention or CLC);
- International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1971, and the 1992 Protocol thereto (the FUND Convention);
- International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea (HNS), 1996;
- International Convention on Civil Liability for Bunker Oil Pollution Damage, 2001;

The 1969 Civil Liability Convention establishes a system of strict liability for the shipowner and the obligation to contract compulsory third-party liability insurance to cover for limits of compensation for damage caused by spill of heavy crude oils transported as cargo.

The 1971 Fund Convention regulates the constitution and functioning of an international fund in charge of providing compensation (the IOPC Fund) additional to that paid by the shipowner under the Civil Liability Convention whenever this compensation proves to be insufficient. The fund also pays compensation in some cases where the compensation to be paid by the shipowner is not available.

Both the Civil Liability and the Fund Conventions were amended by the Protocols of 1992 which entirely supersede the original parent treaties and increase the limits of compensation. The original treaties, as amended, are now widely known as the 1992 Civil Liability Convention and the 1992 Fund Convention, respectively.
The CLC 69 and 71 Fund Convention applied to damage occurring in the territorial sea of States Parties. The Protocols of 1992 extend the scope to cover damage occurring in the EEZ.

The IMO Legal Committee, at its 82nd session in 2000, considered a request to increase the limitation amounts set out in the 1992 Protocol to the 1969 Civil Liability Convention (1992 CLC) and the compensation limits set out in the 1992 Protocol to the 1971 International Oil Pollution Compensation Fund Convention (1992 Fund Convention). Utilizing the tacit acceptance procedure for the first time, the Committee adopted two resolutions amending the 1992 Protocols by increasing the limits in each of them by 50.37%. The amendments entered into force on 1 November 2003.

In May 2003 a Conference of Parties to the 1992 Fund Convention adopted a Protocol establishing an International Oil Pollution Compensation Supplementary Fund, 2003. This supplementary scheme seeks to ensure that victims of oil pollution damage are compensated in full for their loss or damage and alleviate the difficulties faced by victims in cases where there is a risk that amount of compensation available under the 1992 Liability and 1992 Fund Conventions will be insufficient to pay established claims in full. The accession to the supplementary scheme is open only to the Contracting States to the 1992 Fund Convention. Following ratification by Spain, on 3 December 2004, the entry into force conditions of the 2003 Protocol have been met (ratification by at least eight States, which have received a combined total of 450 million tons of contributing oil). The new Fund entered into force on 3 March 2005.

The HNS Convention regulates the strict liability of the shipowner and the obligation to contract compulsory third party liability insurance to cover for limits of compensation for damage caused by accidental spills of hazardous and noxious substances other than heavy crude oil and bunker fuel oil carried as cargo. The same treaty also regulates the constitution and functioning of an HNS Fund similar to the IOPC Fund. This treaty is not yet in force.

The HNS Convention has a geographical scope of application similar to the 1992 Civil Liability and Fund Conventions in respect of pollution damage. Accordingly, it regulates compensation for pollution damage occurred within the territorial sea and the EEZ. Damage other than pollution damage, for instance death and injury incurred on board as a result of explosions involving HNS substances, has a universal scope of application. In such cases, compensation is regulated regardless of the sea zone where the incident at the source of the damage took place.

CHAPTER IV

TECHNICAL CO-OPERATION ASSISTANCE TO DEVELOPING COUNTRIES

General

Parts XII, XIII and XIV of UNCLOS provide for co-operation among States, either directly or through competent international organizations, in the field of marine pollution, marine scientific research, and marine technology. Some of these provisions refer in particular to co-operation by means of assistance to developing countries. The Convention on the International Maritime Organization (article 43(a)) provides that IMO shall, through its Technical Co-operation Committee, consider any matter within its scope concerned with “the implementation of technical co-operation projects funded by the relevant United Nations Programme for which the Organization acts as the executing or co-operating agency or by funds-in-trust voluntarily provided to the Organization ...”.

Within the framework of the Integrated Technical Co-operation Programme (ITCP), other IMO committees work with the IMO Secretariat and the Technical Co-operation Committee to identify developing countries’ needs for assistance in strengthening their institutional, legal, managerial, scientific, technical and training capacities to implement the global rules and standards contained in the treaty and non-treaty instruments adopted by IMO in the following areas:

- maritime safety and related aspects of shipping and ports;
- marine environmental protection;
- maritime legislation;
- facilitation of international maritime traffic.

MARPOL, the 1972 London Convention and its 1996 Protocol, OPRC and STCW contain provisions designed to encourage technical co-operation among Parties.

A PROTECTION AND PRESERVATION OF THE MARINE ENVIRONMENT

Article 197 of UNCLOS prescribes that States must co-operate on a global or regional basis, directly or through competent international organizations, in formulating and elaborating international rules, standards and recommended practices and procedures for the protection and preservation of the marine environment, taking into account characteristic regional features. IMO, together with other organizations, co-operates in the Regional Seas Programme of the United Nations Environment Programme (UNEP). In particular, IMO has played a key role in establishing regional arrangements for combating marine pollution. Also significant is IMO’s participation in and contribution to the Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP), which brings together several United Nations agencies for the expert consideration and the undertaking of appropriate studies on scientific aspects of marine pollution. IMO provides administrative secretariat services to GESAMP.
Article 202 establishes the duty of States, directly or through the competent international organizations, to promote scientific and technical assistance to developing States for the protection and preservation of the marine environment. The scope of the assistance covers activities such as training of scientific personnel, supply of necessary equipment and facilities, and advice for research. The duty of technical assistance also includes appropriate assistance for the minimization of the effects of major incidents which may cause serious marine pollution, and the preparation of environmental assessments. In accordance with article 203, developing States should be granted preference by international organizations in the allocation of appropriate funds and technical assistance and the utilization of their specialized services.

In compliance with these UNCLOS provisions, article 17 of MARPOL on promotion of technical co-operation establishes that Parties must, in consultation with IMO and other international bodies, with assistance and co-ordination by the Executive Director of the United Nations Environment Programme, promote support for those Parties that request technical assistance for training, monitoring and supply of equipment and facilities for the reception of wastes, encouragement of research and the facilitation of other measures and agreements to prevent or mitigate pollution of the marine environment by ships. A similar provision is included in article IX of the London Convention in connection with the disposal and treatment of waste and other measures to prevent or mitigate pollution caused by dumping.

IMO continues to provide assistance to many developing countries – at the national, regional and global levels – for the effective implementation of its Conventions dealing with the prevention of marine pollution. Such activities include technical and legal advisory services, training of administrative personnel and ship surveyors and inspectors, and the development of plans for the reception and management of ship-generated wastes. Among the principal regional or global activities carried out by IMO in these fields, the following may be cited: (a) a GEF/World Bank/IMO programme entitled “Wider Caribbean Initiative on Ship-generated Wastes” carried out during 1994-1998; (b) a five-year GEF/UNDP/IMO Regional Programme on Building Partnerships for Environmental Management in the East Asian Seas (PEMSEA), which started in October 1999; (c) a three-year GEF/UNDP/IMO project on removal of barriers to the effective implementation of ballast water control and management measures in developing countries, which commenced in May 2000; and (d) a one-year GEF/WB/PDF Block B grant, which started in March 2001, for the preparation of a project for the development of a regional marine electronic highway in the East Asian Seas with a first phase in the Straits of Malaysia and Singapore.

Article 8 of the OPRC contains the agreement of the Parties to co-operate directly or through IMO and relevant regional organizations in the promotion and exchange of results of research and development programmes related to oil pollution preparedness and response, including technologies and techniques for the minimization and mitigation of the effects of oil pollution and for restoration of the marine environment. In accordance with article 9, Parties undertake to provide support to those Parties that request technical assistance in respect of training, availability and transfer of the relevant technology, equipment and facilities, and other measures to prepare for and respond to oil pollution incidents. Article 10 establishes that Parties must endeavour to conclude bilateral or multilateral agreements implementing arrangements concerning oil pollution preparedness and response. In accordance with article 12, IMO is given the tasks of facilitating the provision of assistance and advice to States establishing national or regional response capabilities and in connection with major oil pollution incidents.
As part of the development of regional systems in preparedness, response and co-operation in the event of accidental marine pollution, regional contingency plans were prepared and approved for the Black Sea, South Asia and North-West Pacific regions. The same process is being developed in the Mediterranean region, the Sea and Gulf of Aden, and the Central and Western Africa region. The IMO has signed an agreement with UNOPS as executing agency for the United Nations Development Programme’s Caspian Environment Programme (CEP), in which IMO and UNOPS/CEP wish to implement activities relating to the preparation and development of the national and regional contingency plans for the Caspian Sea countries.

Regional co-operation under the Emergency Protocol to the Abidjan Convention was revitalized through the organization in the year 2000 of a joint IMO/UNEP meeting of national experts and of an IMO/IPIECA regional workshop aiming to adopt a plan of action for the development of regional co-operation for preparedness and response to accidental marine pollution.

In 1994, IMO and the Port Management Association of Eastern and Southern Africa (PMAESA) developed a strategy and action plan for the protection of the marine environment in Eastern and Southern Africa. This strategy is now under review and will in future be implemented by IMO, PMAESA, the Southern Africa Transport and Communication Commission (SATCC) and the Common Market for Eastern and Southern Africa (COMESA).

In the Wider Caribbean region, the Regional Marine Pollution Emergency Information and Training Centre (REMPEITC-Carib) has been formally established in Curaçao as a Regional Activity Centre within the framework of the Caribbean Environment Programme. A Memorandum of Understanding between the Netherlands Antilles, UNEP and IMO was signed in September 2002 in that connection. The Centre provides advice and hands-on support to the countries and territories of the region on matters concerning the prevention of marine pollution, response and control activities when pollution has in fact occurred, as well as civil liability and compensation issues.

Within the framework of the North-West Pacific Action Plan, the Marine Environmental Emergency Preparedness and Response Regional Activity Centre (MER/RAC) has been established in the Republic of Korea. In July 2000 the Korean Research Institute of Ship and Ocean Engineering/Korean Ocean Research and Development Institute, UNEP and IMO signed a Memorandum of Understanding aiming at establishing long-term co-operation with MER/RAC.

Article 13 of the 1996 London Convention Protocol obligates Parties to promote technical co-operation and assistance in connection with access to and transfer of environmentally sound technologies and corresponding know-how, in particular to developing countries and countries in transition to market economies. IMO is assigned specific functions of co-ordination in this regard.

Articles 200 and 201 of UNCLOS deal with the duty of co-operation in the promotion of studies, research programmes and exchange of information and data acquired about marine pollution, and the establishment of scientific criteria for international regulations. In this context, IMO has supported the organization of three global Research and Development Forums on matters concerning oil pollution of the seas. Articles 204 to 206 contain provisions on co-operation regarding the monitoring and assessment of the environmental impact of pollution. IMO’s contribution to the work of GESAMP should again be mentioned in this regard.
B TRAINING

Co-operation requirements for training of seafarers in the field both of safety of navigation and the prevention and control of marine pollution are addressed in article XI(1) of STCW 78, as amended, which regulates the obligation for Parties to promote, in consultation and with the assistance of IMO, support for those parties which request technical assistance for the training of personnel, the establishment of institutions for the training of seafarers, the supply of equipment and facilities for training institutions, the development of adequate training programmes and the facilitation of measures and arrangements to enhance qualifications of seafarers. The article includes the provision that this assistance should be performed preferably on a national, subregional or regional basis, “to further the aims and purposes of the Convention, taking into account the special needs of developing countries”. In compliance with this requirement IMO provides worldwide assistance for maritime training institutes in charge of providing basic training for seafarers in accordance with STCW.

The Organization has sponsored a series of seminars and workshops around the world to promote implementation of the 1995 STCW amendments. Venues for these seminars include Ghana, Kenya, Malta, Namibia, South Africa, Tanzania and Tunisia. At the same time, the IMO model courses have been revised to bring them up to date with the new certification requirements.

Maritime training institutes under the auspices of IMO

Within the framework of its technical co-operation programme, IMO is particularly active in the development of human resources to provide maritime administrations, especially those in developing countries, with the know-how required to comply with international rules and standards.

Under the auspices of IMO, three global educational institutions have been created. The World Maritime University (WMU) in Malmö, Sweden, offers Master of Science degree courses plus professional development courses in maritime safety administration, general maritime administration and environmental protection, shipping management, port management and maritime education and training. The IMO International Maritime Law Institute (IMLI) in Malta offers a one-year advanced course at postgraduate level leading to the degree of Master of Laws. The IMO International Maritime Academy (IMA) in Trieste, Italy, offers students the opportunity to attend seminars and short courses at the Academy based on a range of IMO model courses. These courses contain precise and up-to-date information on a wide range of particular issues related to safety of navigation and prevention of marine pollution.

C MARINE SCIENTIFIC RESEARCH

Article 242 of UNCLOS places upon States and competent international organizations the general obligation to promote international co-operation in marine scientific research for peaceful purposes. In article 243, States and international organizations are required to co-operate through the conclusion of bilateral and multilateral agreements to create favourable conditions for the conduct of marine scientific research in the marine environment. In accordance with article 244, publication and dissemination of information on proposed major programmes and their objectives as well as knowledge resulting from marine scientific research relies on States and competent international organizations. MARPOL, article 17, expressly provides for the obligation to promote technical assistance for the encouragement of research. The 1996 Protocol to the London Convention includes in article 14 a new provision on scientific and technical research related to
pollution by dumping. This provision deals with the duty of Parties to promote such research and to facilitate information on scientific and technical activities and programmes, and on impact assessment.

Scientific research installations

In accordance with article 261 of UNCLOS, the deployment and use of any type of scientific research installation or equipment shall not constitute an obstacle to established international shipping routes. Article 262 provides that such installations or equipment shall bear identification markings and shall have adequate internationally agreed warning signals to ensure safety at sea, taking into account rules and standards established by competent international organizations.

IMO would appear to be the most appropriate body for developing international rules and standards on warning signals for such installations and equipment to ensure safety at sea. Such elaboration may need to be undertaken in consultation with other international organizations concerned, such as the International Civil Aviation Organization (ICAO), the International Telecommunication Union (ITU), the International Mobile Satellite Organization (Inmarsat), the Inter-governmental Oceanographic Commission (IOC), the International Hydrographic Organization (IHO) and the International Association of Lighthouse Authorities (IALA).

D DEVELOPMENT AND TRANSFER OF MARINE TECHNOLOGY

Among the objectives of the development and transfer of marine technology listed in article 268 of UNCLOS mention is made of “the development of human resources through training and education of nationals of developing States …”. Article 269(a) includes among the measures to achieve these objectives the establishment of programmes of technical co-operation “for the effective transfer of all kinds of marine technology to States which may need and request technical assistance in this field”, and to developing States which have not been able to establish or develop their own technological capacity. The OPRC, articles 8(1) and 9(2), and the 1996 LC Protocol, article 13(5), make specific reference to the transfer of technology within the framework of technical co-operation activities to be promoted in order to comply with the objectives and provisions of both treaties.
PART III
SETTLEMENT OF DISPUTES

Role of IMO in the Special Arbitration Procedure

According to article 1 of Annex VIII of UNCLOS, disputes concerning the interpretation or application of the articles of the Convention relating to “navigation, including pollution from vessels and by dumping” may be submitted to a special arbitral procedure provided for in that annex. Under article 2 of the same Annex the members of the special arbitral tribunal to deal with such disputes should be selected preferably from a list of experts established and maintained by IMO or by the appropriate subsidiary body to which IMO has delegated this function. In compliance with article 2 of Annex VIII of UNCLOS, IMO has invited all States Parties to the Convention at the moment of its entry into force and each State becoming Party thereafter, to nominate two experts to be included in the list of experts in the field of navigation, including pollution from vessels and by dumping. In response to this invitation, several States have nominated such experts. For a listing of the experts who have been nominated by Governments, see the website of the Division for Ocean Affairs and the Law of the Sea, Office of Legal Affairs, United Nations at www.un.org/Depts/los.

In accordance with article 289 of UNCLOS, experts in the list established in accordance with article 2 of Annex VIII in connection with special arbitration procedures may also be selected to assist proceedings by courts or tribunals in connection with disputes related to navigation and pollution from vessels and by dumping.

Jurisdiction of courts or tribunals

The jurisdiction of court or tribunal referred to in article 287 of UNCLOS over disputes concerning the interpretation or application of the Convention also extends to the interpretation or application of an international agreement related to the purposes of the Convention, which is submitted to it in accordance with the agreement (UNCLOS, article 288). Reference to the possibility for the Parties concerned to use the dispute settlement procedures of UNCLOS is included in article 16 of the 1996 LC Protocol. A similar provision is contained in the Nairobi International Convention on the Removal of Wrecks, 2007 (see part II, chapter I of this document).

In accordance with Annex VI, article 22 of UNCLOS, the International Tribunal for the Law of the Sea may exercise jurisdiction over disputes concerning the interpretation or application of related treaties already in force, if all the parties to the treaty so agree. Agreements in this regard may be concluded by parties to IMO treaties in connection with any dispute regarding their interpretation or application.

Procedures in respect of violation of international anti-pollution rules and standards

Under article 223 of UNCLOS a State which institutes proceedings against a foreign vessel in respect of violations of international or national laws and regulations on marine pollution prevention is required to take measures to facilitate the hearing of witnesses and the admission of evidence submitted by, inter alia, “the competent international organization” (IMO). Such a State is also required to facilitate the attendance of such proceedings by “official representatives” of that organization, who shall have such rights and duties as may be provided for under national or international law.
The appropriate bodies of IMO may find it necessary to consider the procedures and arrangements required to enable IMO to intervene in such proceedings, including the criteria for determining when such an intervention would be appropriate and the procedure for designating the “official representatives” of the Organization.

Article 297(1) of UNCLOS specifies the situations where compulsory dispute settlement procedures entailing binding decisions, as established in section II of part XV, apply also to disputes concerning the interpretation or application of the Convention with regard to the exercise by a coastal State of sovereign rights and jurisdiction. One such situation concerns the allegation that a coastal State has acted in contravention of specified international rules and standards for the protection and preservation of the marine environment which are applicable to the coastal State and which have been established by the Convention or through a “competent international organization” (IMO) (article 297(1)(c)).
PART IV

THE IMPLEMENTATION OF IMO FUNCTIONS AND RESPONSIBILITIES
IN THE LIGHT OF THE ENTRY INTO FORCE OF UNCLOS

General

Throughout this document an assessment has been provided of the existing functions and responsibilities of IMO within the general framework of international law as reflected in UNCLOS. Appropriate reference has been made to areas in respect of which IMO’s tasks could be expanded following the entry into force of the Convention.

This part endeavours to identify any such areas in order to determine whether there is a need for IMO to modify its work or to extend the scope and purpose of its international regulations or procedures or to provide clearer or additional guidelines to States or other entities in implementing the provisions of the Convention.

Documentary and special precautionary requirements in respect of nuclear-powered ships and ships carrying nuclear or other inherently dangerous or noxious substances

Bearing in mind article 23 of UNCLOS, and the adoption of amendments to SOLAS chapter VII to make the INF Code mandatory, IMO may consider the adoption of multilateral agreements in relation to additional matters such as emergency preparedness and response arrangements in the event of an accident involving cargoes subject to the INF Code.

Routeing measures

IMO could extend its present role in connection with the provisions of UNCLOS relating to the establishment of international rules and standards concerning routeing measures. In this regard, consideration may be given to identifying or establishing, as necessary, in addition to existing IMO Guidelines on ships’ routeing:

- the recommendations which coastal States must take into account in prescribing traffic separation schemes or designating sea lanes in their territorial sea;

- the international regulations to which traffic separation schemes and sea lanes within straits used for international navigation and in archipelagic waters must conform;

- the procedures to be followed by coastal States wishing to refer proposals for traffic separation schemes or sea lanes in international straits or archipelagic waters to IMO for consideration and adoption, including procedures and arrangements to facilitate co-operation between two or more States in respect of sea lanes or traffic separation schemes through the waters of such States.

Construction, operation and use of artificial islands, installations and structures in the exclusive economic zone, and the removal of such installations and structures

IMO may consider the adoption of applicable international standards for determining the breadth of safety zones, as prescribed in article 60(5) of UNCLOS.
Procedures and requirements for bonding or other appropriate financial security in respect of vessels detained by a coastal or port State

Article 220(7) of UNCLOS obliges a coastal State which has detained a vessel for a violation of international regulations, or national laws, as appropriate, to allow the vessel to proceed if the vessel has complied with the requirements for bonding or other appropriate financial security and the coastal State is bound by the procedures establishing the requirements in question. The obligation for States to order the release of a ship upon provision of adequate financial security to cover for the liability of the shipowner is regulated in a number of IMO liability treaties, namely:

- the Convention on Limitation of Liability for Maritime Claims, 1976 (article 13);
- the Protocol on Limitation of Liability for Maritime Claims, 1996;
- the International Convention on Civil Liability for Oil Pollution Damage, 1969 and the 1992 Protocol thereto (article VI);
- the International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea, 1996 (article 10); and

Article 220 also states that the appropriate procedures may be established through “the competent international organization” (IMO). Consideration may, therefore, be given to the possible establishment of procedures on provision of bonds or financial security and a suitable mechanism for establishing such procedures. In this regard it should be noted that article 292 of the Convention provides for a procedure under which an application may be made by or on behalf of the flag State of a vessel, if it is alleged that the vessel is being detained in contravention of the requirement of the Convention for prompt release, following the posting of a reasonable bond or other financial security. The existence of international procedures in this regard will, accordingly, be of some importance in the implementation of the dispute settlement arrangements in part XV of the Convention.

Role of IMO in proceedings against foreign vessels

Bearing in mind the provisions on jurisdiction (article 288) and the possibility for IMO to submit evidence and/or send official representatives to attend proceedings instituted in connection with pollution incidents (article 223), the appropriate bodies of IMO may consider the procedures and arrangements required to enable IMO to intervene in such proceedings, including the criteria for determining when such an intervention would be appropriate and the procedure for designating the “official representatives” of the Organization, as envisaged in the Convention.

Prevention of harmful consequences to vessels and the marine environment as a result of the exercise of enforcement powers by States

Article 225 of UNCLOS provides that States, when exercising measures of enforcement against foreign vessels, shall not endanger the safety of navigation or otherwise create any hazard to a vessel, or bring the vessel to an unsafe port or anchorage, or expose the marine environment to an unreasonable risk. Article 226 declares that States shall not delay a foreign vessel longer than is essential for purposes of the investigations provided for in the Convention. The article lays down
the conditions and limits of physical inspections of a vessel, and provides for the release of the vessel, whether absolutely or on conditions, as may be appropriate. Paragraph 2 of article 226 provides that States must co-operate to develop procedures for “the avoidance of unnecessary physical inspection of vessels at sea”.

To the extent that it may be considered that any of the procedures envisaged in article 226(2) should be developed on the international plane, IMO would be the appropriate forum for that purpose. In this connection, reference may be made to the provisions in article 6 of MARPOL 73/78 relating to detection of violations and enforcement of the convention. Consideration may be given to whether these provisions provide an appropriate or suitable basis for the elaboration of the necessary international procedures in this regard.

**Prevention of interference by marine scientific research installations or equipment with safety of navigation**

Article 261 of UNCLOS states that the deployment and use of any type of scientific research installations or equipment shall not constitute an obstacle to established international shipping routes. Article 262 states that such installations or equipment shall bear identification markings and “shall have adequate internationally agreed warning signals to ensure safety at sea and the safety of air navigation, taking into account rules and standards established by competent international organizations”. IMO would appear to be the most appropriate body for developing the international rules and standards to ensure safety at sea. Any work in this area needs to be undertaken in consultation with other international organizations concerned such as the International Civil Aviation Organization (ICAO), the International Telecommunication Union (ITU), the International Maritime Satellite Organization (INMARSAT), the Intergovernmental Oceanographic Commission (IOC), the International Hydrographic Organization (IHO) and the International Association of Lighthouse Authorities (IALA).

**Possible role of IMO in the facilitation of appropriate publicity with respect to measures for the safety of navigation and the prevention of marine pollution**

A number of articles of UNCLOS impose on States and other entities the obligation to provide publicity with regard to legislative or other measures taken by them, and to publicize information which may become available to them relating to safety of navigation or the prevention of pollution of the marine environment from vessels or by dumping. This publicity is to make States, seafarers and other interested persons aware of the measures or information in question and thus enable them to take appropriate and necessary steps either to prevent infringements of the laws and regulations, or to avoid any dangers which may be presented in particular situations. It is, therefore, essential that the publicity be given in a manner that ensures that the information provided will in fact reach those who are likely to be affected. In some cases the States or other entities required to provide publicity are also enjoined to make the information available to IMO. Even in cases where reference has been made to another body or bodies, some IMO involvement may be necessary, or at least helpful.

The articles of the Convention relating to “publicity”, in respect of matters of possible interest to IMO, include the following:

- **Article 21(3):** The coastal State is required to give due publicity to its laws and regulations for the regulation of innocent passage in its territorial sea. The same provision applies to the laws and regulations relating to transit passage in straits used for international navigation (article 42(3)).
- **Article 22(4):** The coastal State is required to indicate clearly the sea lanes and traffic separation schemes in its territorial sea on charts to which “due publicity” is to be given. The same applies under article 41(6) in relation to transit passage in straits used for international navigation and under article 53(10) in respect of archipelagic sea lane passage.

- **Article 24(2):** The coastal State is required to give publicity to any danger to navigation within its territorial sea of which the State has knowledge. (The same obligation is imposed on States bordering straits used for international navigation under article 44.)

- **Article 41(2):** Publicity should be given by States bordering straits used for international navigation in respect of sea lanes and traffic separation schemes adopted in such straits. The same obligation is imposed by article 53(7) in respect of sea lanes and traffic separation schemes in archipelagic waters.

- **Article 52(2):** An archipelagic State is required to give publicity in respect of suspensions of innocent passage in its archipelagic waters. Suspensions of innocent passage in the territorial sea must take place only after having been duly published (article 25(3)).

- **Article 60(3):** The coastal State is required to give publicity in respect of the depth, position and dimensions of installations or structures in its exclusive economic zone which are not entirely removed. (The same requirements apply in respect of similar installations in the continental shelf, article 80.)

- **Article 60(5):** The coastal State is required to give publicity in respect of the extent of safety zones established around artificial islands, installations or structures in its exclusive economic zones. (The same requirement applies to safety zones on the continental shelf, article 80.)

- **Article 211(3):** A coastal State which establishes particular requirements for the prevention, reduction and control of pollution of the marine environment as a condition for the entry of foreign vessels into its ports or internal waters or for a call at its offshore terminals, must give due publicity of such requirements.

- **Article 211(6):** A State which establishes special mandatory measures for marine pollution prevention in a clearly defined area of its exclusive economic zone (paragraph 6, subparagraphs (a) and (b)); or adopts additional laws and regulations (paragraph 6, subparagraph (c)), must give due publicity to such measures.

- **Article 217(7):** A flag State is required to provide IMO with information in respect of action taken by it against a vessel flying its flag for violations of rules and standards adopted through IMO. IMO is required to make such information “available to all States”.

In respect of all these provisions, it appears clear that the required publicity objective will be effectively achieved only if the information in question reaches the States, authorities, entities and persons that are intended to be guided by the information. IMO maintains the most direct and continuing contact with the authorities of States concerned with safety of navigation and the prevention of vessel-source pollution. Accordingly the purpose of the publicity is likely to be served by some IMO involvement. To the extent that this involvement is considered necessary and
appropriate, it may be useful to consider suitable arrangements by which the Organization may assist or co-operate with the States or international organizations concerned in ensuring that the publicity given by them will in fact reach the destinations for which it is intended.

IMO’s involvement or co-operation in enhancing the effective dissemination of information on maritime safety and pollution prevention measures may even extend to cases in which responsibility for the publicity concerned may have been assigned to specific States or organizations by the Convention. For example, several articles of the Convention, in requiring that States give due publicity to legislation or other measures adopted by them, also stipulate that the information should be deposited with the Secretary-General of the United Nations, who is the depository of the Convention itself. In line with its normal practice in this regard, it must be assumed that the Secretariat of the United Nations will make information deposited with it available to all States concerned. But even in such cases, there may be a need for IMO’s involvement in the further dissemination of information, particularly where the information in question may be of significance to ships’ personnel or other persons operating in the marine environment who are required to take such information into account in order to safeguard safety or prevent pollution. IMO may therefore find it useful to consider how it might usefully co-operate with or assist the United Nations in making sure that the information will reach ships and other persons which may be in closer contact with IMO.

For example, article 147 of the Convention lays down certain conditions for the erection, emplacement and removal of installations used for carrying out activities in the Area, i.e. “the seabed and ocean floor and sub-soil thereof, beyond the limits of national jurisdiction”. One of the conditions is that such installations should not interfere with the use of recognized sea lanes essential to international navigation. It is also provided that permanent means for giving warnings of their presence must be maintained, and safety zones shall be established around the installations, but in a way that does not impede “the lawful access of shipping to particular maritime zones or navigation along international sea lanes” (article 147(2)).

Also under article 16(2), States are required to give due publicity to the charts showing the baselines for measuring the breadth of their territorial sea, or the lists of geographical co-ordinates of points. Copies of such charts or lists are to be deposited with the Secretary-General of the United Nations. Similar requirements apply in respect of archipelagic baselines under article 47(9), in respect of the exclusive economic zone under Article 75. There is a similar provision regarding the continental shelf (article 84(2)). The primary responsibility for preparing and publicizing these charts will fall on the States concerned, but IMO may be in a position to assist in cases where it is deemed that the information may be of relevance to maritime safety or pollution prevention. There is no doubt that some of the information to be publicized under these articles of the Convention can be of considerable relevance to flag States, shipowners and other persons involved in international shipping that will need the information in order fully to discharge their responsibilities and international obligations in respect of safety of navigation and pollution prevention. Accordingly, IMO has a legitimate interest in the most effective dissemination of the information involved. For the purposes of facilitating this effective dissemination of information, IMO may find it necessary or useful to establish mechanisms suitable for channelling, in particular cases, information to the authorities, institutions or persons directly affected. Any such involvement of IMO will, of course, be in full consultation with the Secretariat of the United Nations or other intergovernmental organizations concerned, or individual States, as appropriate. It is essential that any role that IMO may play should be such that it does not create unnecessary duplication or proliferation of information and communications on the same subject. Therefore, care should be taken to organize matters in such a way that all concerned recognize clearly that the role of IMO is complementary to the functions of the States, national institutions or international organizations concerned, and not in any way to be regarded as substitutes for those functions.
The development and transfer of marine technology and international co-operation

The basic objectives of international co-operation, as spelt out in articles 202 and 268, and especially the development of human resources through training and education for nationals of developing countries are already part of the fundamental aims of IMO and its Technical Co-operation Programme, as provided for in the IMO Convention and in the relevant decisions of the Organization’s intergovernmental bodies. In implementing these aims, IMO may find it useful to expand the scope of the specific arrangements and measures suggested or envisaged in the relevant articles of UNCLOS, particularly those relating to the transfer of technology and the provision of assistance to developing countries in the maritime field.

Further avenues of co-operation among international organizations

Article 278 enjoins the competent international organizations to take all appropriate measures to ensure, either directly or in close co-operation among themselves, the effective discharge of their functions and responsibilities. In accordance with its Constitution and pursuant to decisions of its governing organs, IMO has established co-operative and fruitful arrangements for collaboration with the United Nations and the other agencies and organizations within the United Nations system. However, IMO has continued to explore appropriate avenues to promote and facilitate further co-operation with all international organizations whose activities may affect, or be affected by, the measures taken by the Organization with regard to matters dealt with by the Convention. Effective and co-ordinated liaison will also be needed with the International Seabed Authority and the International Tribunal for the Law of the Sea. Any such liaison and co-operation will be subject to the relevant provisions of UNCLOS, and in accordance with the view of the IMO Assembly that IMO might provide “advice and assistance” to the Preparatory Commission for the International Seabed Authority “on matters falling within the competence of IMO”. The Tribunal and the IMO exchanged notes in July 2002 reconfirming the desire to maintain regular contact and co-operation.

Other possible roles for IMO in connection with the implementation of UNCLOS

In addition to the new or modified functions and responsibilities directly or indirectly imposed on IMO by UNCLOS, it may be necessary to consider what other possible roles, if any, may legitimately be played by IMO in connection with implementation of the provisions of the Convention that deal with matters within the field of competence of IMO, particularly the provisions whose interpretation or application may be assisted by work within IMO. Reference may be made in this connection to the articles of the Convention that relate to safety at sea and the prevention of marine pollution, since many of these articles refer to or presuppose the existence of international regulations and standards adopted by IMO and by reference to which States may implement the principles in UNCLOS.

As indicated above, many articles of UNCLOS stipulate that the powers and obligations of States are to be exercised or discharged by reference to “generally accepted” or “applicable” international regulations and standards. In some cases, the Convention expressly states that the international rules or regulations involved are those established by “the competent international organization” (IMO) or by “general diplomatic conference”. Furthermore, in many other cases the Convention does not specify the rules and regulations that are deemed to be “generally accepted” or “applicable”. It would therefore be necessary for the appropriate bodies of IMO to consider what guidelines IMO can usefully provide to States in this regard.

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# ANNEX

## PROVISIONS OF UNCLOS RELEVANT TO THE INSTRUMENTS AND WORK OF IMO

### INNOCENT PASSAGE IN THE TERRITORIAL SEA

*(rules applicable to all ships)*

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## Articles of UNCLOS

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**STRAITS USED FOR INTERNATIONAL NAVIGATION**
(transit passage)

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<td>Reference to “generally accepted international regulations”</td>
<td>SOLAS V/8 (renumbered V/10 in 2000 amendments) COLREG (rules 1(d) and 10) Res. A.572(14)</td>
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<td></td>
<td></td>
<td>Paragraph 4: Duty to refer proposals concerning sea lanes or traffic separation schemes to the competent international organization</td>
<td>Reference to the “competent international organization”</td>
<td>SOLAS V/8 (renumbered as V/10 in 2000 amendments) COLREG (rules 1(d) and 10) Res. A.572(14)</td>
<td>IMO is the competent international organization.</td>
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<td></td>
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<td>Paragraph 5: Duty for States bordering straits to co-operate in formulating proposals for sea lanes or traffic separation schemes</td>
<td>Reference to the “competent international organization”</td>
<td>SOLAS V/8 (renumbered as V/10 in 2000 amendments)</td>
<td>IMO is the competent international organization.</td>
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<td></td>
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<td>Paragraph 6: Duty to indicate sea lanes and traffic separation schemes on charts and duty of publicity</td>
<td></td>
<td>Res. A.572(14) SOLAS V/8 (renumbered as V/10 in 2000 amendments)</td>
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<td>Articles of UNCLOS</td>
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<td>42</td>
<td>Laws and regulations of States bordering straits relating to transit passage (applicable also to archipelagic sea lanes passage according to article 54)</td>
<td>Paragraph 1: Matters concerning which the coastal State is entitled to adopt laws and regulations</td>
<td>Reference to the “generally accepted international regulations” on matters concerning safety at sea as provided in article 41, and to “applicable international regulations” within the scope of marine pollution</td>
<td>SOLAS COLREG Load Lines STCW MARPOL</td>
<td></td>
</tr>
<tr>
<td>43</td>
<td>Navigational and safety aids and other improvements and the prevention, reduction and control of pollution</td>
<td>Duty of user States and States bordering straits to co-operate by agreement</td>
<td>IMO’s fields of competence (navigational aids and vessel-source pollution)</td>
<td>SOLAS V/14 (renumbered V/13 in 2000 amendments) Res. A.857(20)</td>
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</tr>
<tr>
<td>44</td>
<td>Duties of States bordering straits (applicable also to archipelagic sea lanes passage according to article 54)</td>
<td>Publicity in respect of dangers to navigation</td>
<td>IMO’s field of competence (safety of navigation)</td>
<td>SOLAS V/2 (renumbered as V/4 in 2000 amendments) Res. A.706(17)</td>
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## ARCHIPELAGIC STATES
(archipelagic sea lane passage)

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<th>Articles of UNCLOS</th>
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<tr>
<td>53</td>
<td>Right of archipelagic sea lanes passage</td>
<td>Paragraph 8: Duty of archipelagic States in establishing sea lanes and traffic separation schemes</td>
<td>Reference to “generally accepted international regulations”</td>
<td>SOLAS V/8 (renumbered as V/10 in 2000 amendments) COLREG (rules 1(d) and 10) Res. A.572(14) Res. A.858(20) MSC.72(69)</td>
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<tr>
<td></td>
<td></td>
<td>Paragraph 9: Duty to refer proposals concerning sea lanes or traffic separation schemes to the competent international organization</td>
<td>Reference to the “competent international organization”</td>
<td>SOLAS V/8 (renumbered as V/10 in 2000 amendments) COLREG (rules 1(d) and 10) Res. A.572(14) Res. A.858(20) MSC.72(69)</td>
<td>IMO is the competent international organization.</td>
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<tr>
<td></td>
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<td>Paragraph 10: Duty to indicate sea lanes and traffic separation schemes on charts and duty of publicity</td>
<td></td>
<td>SOLAS V/8 (renumbered as V/10 in 2000 amendments) Res. A.572(14) Res. A.858(20) MSC.72(69)</td>
<td>IMO is the competent international organization.</td>
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### EXCLUSIVE ECONOMIC ZONE

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<tr>
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<th>Relevant IMO instruments</th>
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<tbody>
<tr>
<td>60</td>
<td>Artificial islands, installations and structures in the EEZ</td>
<td>Paragraph 3: Duty to remove abandoned or disused artificial islands, installations or structures, and duty of publicity with respect to their partial removal</td>
<td>Reference to “generally accepted international standards” established by the “competent international organization”</td>
<td>Res. A.672(16) London Convention (article III, and annex 17)</td>
<td>Notification of partial removal but also of non-removal should be forwarded to IMO.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Paragraph 4: Safety zones around artificial islands, installations or structures</td>
<td>IMO’s field of competence (safety of navigation)</td>
<td>Res. A.671(16)</td>
<td>Consider whether the provisions of res. A.671(16), particularly No.1(b), are compatible with article 60(4) of UNCLOS.</td>
</tr>
<tr>
<td></td>
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<td>Paragraph 5: Breadth of safety zones, and duty of publicity with respect to the extent of safety zones</td>
<td>Reference to “applicable international standards” and to “generally accepted international standards” or as recommended by the “competent international organization”</td>
<td>Res. A.671(16)</td>
<td>The coastal State is responsible for the dissemination of information.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Paragraph 6: Navigation in the vicinity of artificial islands, installations, structures and safety zones</td>
<td>Reference to “generally accepted international standards”</td>
<td>Res. A.671(16)</td>
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<td>Paragraph 7: Non-interference with recognized sea lanes essential to international navigation</td>
<td>IMO’s field of competence (safety of navigation)</td>
<td>Res. A.671(16) Res. A.572(14)</td>
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# CONTINENTAL SHELF

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<td>80</td>
<td>Artificial islands, installations and structures on the continental shelf</td>
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<td>Same as in relation to article 60 of UNCLOS.</td>
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# HIGH SEAS

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<td>91 and 92</td>
<td>Nationality of ships and status of ships</td>
<td>Registration of ships</td>
<td>Prevention of unlawful acts against safety of navigation</td>
<td>SUA SUA Protocol Intervention 1969 Intervention Prot 1973</td>
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<tr>
<td>94</td>
<td>Duties of the flag State (applicable also to the EEZ as far as compatible with the EEZ regime according to article 58(2))</td>
<td>Paragraph 1: Flag State jurisdiction with respect to administrative, technical and social matters</td>
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<td>Articles of UNCLOS</td>
<td>Subject-Matter</td>
<td>Specific provisions on the subject-matter</td>
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<td>Paragraph 3: Measures to ensure safety at sea on the following matters:</td>
<td>Reference to “generally accepted international regulations, procedures and practices” according to article 94(5)</td>
<td>SOLAS Load Lines COLREG MARPOL STCW STCW-F</td>
<td>1. The flag State must, as appropriate, comply with non-binding IMO instruments (Res. A.739(18), A.740(18), A.741(18)). 2. IMO rules and standards represent the minimum requirements vis-à-vis flag State jurisdiction.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(a) Construction, equipment and seaworthiness of ships</td>
<td>As above</td>
<td>SOLAS Load Lines SFV MARPOL A.961(23)</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>(b) Manning of ships</td>
<td>Reference to “applicable international instruments”</td>
<td>STCW STCW-F SOLAS A.955(23)</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>(c) Signals, communications and prevention of collisions</td>
<td>Reference to “generally accepted international regulations, procedures and practices” according to article 94(5)</td>
<td>SOLAS COLREG Code of Signals</td>
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<td>Paragraph 4: The above measures shall include the following:</td>
<td>As above</td>
<td>SOLAS MARPOL A.948(23) A.952(23)</td>
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<td></td>
<td></td>
<td>(a) Survey of ships and duty to carry charts, nautical publications, instruments and equipment</td>
<td>As above</td>
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<td>Articles of UNCLOS</td>
<td>Subject-Matter</td>
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<td>(b) Technical qualification of the master, officers, and crew</td>
<td>Reference to “applicable international regulations”</td>
<td>SOLAS</td>
<td>1. The duty to investigate under relevant IMO regulations is limited to the purpose of determining the need for any changes to the pertinent convention.</td>
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<tr>
<td></td>
<td></td>
<td>(c) Qualification of the master, officers, and crew in maritime law</td>
<td>Reference to “generally accepted international regulations, procedures and practices” according to article 94(5)</td>
<td>SOLAS</td>
<td>SOLAS STCW STCW-F</td>
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<td></td>
<td>Paragraph 7: Duty of the flag State to conduct an investigation of any casualty occurring to its ships</td>
<td>IMO’s field of competence</td>
<td>SOLAS STCW STCW-F A.947(23) MSC.209(81)</td>
<td>SOLAS (regulation I/21) Load Lines (art. 23) MARPOL art. 6(4) and art. 12 Res. A.637(16)</td>
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<td>98</td>
<td>Duty to render assistance</td>
<td>Paragraph 1: Duty of the master to render assistance to persons and ships Paragraph 2: Duty of the coastal State to promote search and rescue services</td>
<td>IMO’s field of competence</td>
<td>Salvage SOLAS V/33</td>
<td>SAR SOLAS V/7 GMDSS</td>
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<td>100</td>
<td>Piracy</td>
<td>Duty of States to co-operate in the repression of piracy</td>
<td>IMO’s field of competence (navigational and environmental risk)</td>
<td>Res. A.738(18) Res. A.979(24)</td>
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<td>108</td>
<td>Illicit traffic in narcotic drugs or psychotropic substances</td>
<td>Duty of co-operation for the suppression of illicit drug-trafficking</td>
<td>IMO’s field of competence</td>
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### THE AREA

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<td>142</td>
<td>Rights and legitimate interests of coastal States</td>
<td>Right of coastal States to take proportionate measures beyond the territorial sea to avoid pollution resulting from or caused by any activities in the Area</td>
<td>Intervention Convention 1973 Intervention Protocol</td>
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<td>163</td>
<td>Organs of the Council (International Seabed Authority)</td>
<td>Paragraph 13: Each Commission may consult any competent organ of the United Nations or of its specialized agencies</td>
<td>Reference to the specialized agencies of the United Nations</td>
<td></td>
<td>IMO is a specialized agency of the United Nations.</td>
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### PROTECTION AND PRESERVATION OF THE MARINE ENVIRONMENT

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<td>196</td>
<td>Use of technologies or introduction of alien or new species</td>
<td>Duty of States to take measures to prevent, reduce and control pollution of the marine environment resulting use of technologies or introduction of alien or new species which may cause significant and harmful changes</td>
<td>IMO field of competence (environmental risk)</td>
<td>BWC</td>
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<td>Articles of UNCLOS</td>
<td>Subject-Matter</td>
<td>Specific provisions on the subject-matter</td>
<td>Relationship between UNCLOS and IMO instruments</td>
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<td>197</td>
<td>Co-operation on a global or regional basis</td>
<td>Duty of States to co-operate on a global or regional basis directly or through competent international organization, in elaborating international anti-pollution standards</td>
<td>Reference to “competent international organizations”</td>
<td>Res. A.964(23)</td>
<td>IMO is a competent international organization.</td>
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<td>198</td>
<td>Notification of imminent or actual damage</td>
<td>Duty of States to notify other States and the competent international organizations in cases of imminent or actual damage</td>
<td>Reference to “competent international organizations”</td>
<td>OPRC OPRC PROT 2000</td>
<td>IMO is a competent international organization.</td>
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<td>199</td>
<td>Contingency plans against pollution</td>
<td>Duty of affected States and the competent international organizations to co-operate in eliminating the effects of pollution and preventing or minimizing damage</td>
<td>Reference to “competent international organizations”</td>
<td>OPRC OPRC PROT 2000 MARPOL Annex I, reg. 26 &amp; Annex II, reg. 16</td>
<td>IMO is a competent international organization.</td>
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<tr>
<td>200</td>
<td>Studies, research programmes and exchange of information and data</td>
<td>Duty of States to co-operate through competent international organizations, for the purpose of promoting studies, undertaking programmes of scientific research and encouraging the exchange of information and data</td>
<td>Reference to “competent international organizations”</td>
<td>AFS, 2001</td>
<td>IMO is a competent international organization.</td>
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<tr>
<td>Articles of UNCLOS</td>
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<td>201</td>
<td>Scientific criteria for regulations</td>
<td>Duty of States to co-operate through competent international organizations in establishing appropriate scientific criteria for the formulation of international anti-pollution standards</td>
<td>Reference to “competent international organizations”</td>
<td></td>
<td>IMO is a competent international organization.</td>
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<td>202</td>
<td>Scientific and technical assistance to developing States</td>
<td>Duty of States to provide scientific and technical assistance to developing States for the protection and preservation of the marine environment</td>
<td>Reference to “competent international organizations”</td>
<td>IMO convention and specific treaty obligations under MARPOL, London Convention, OPRC, OPRC PROT 2000, STCW</td>
<td>1. IMO is a competent international organization. 2. IMO’s programme for technical co-operation and assistance for developing States.</td>
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<td>Preferential treatment for developing States</td>
<td>Granting of preferential treatment to developing States by international organizations</td>
<td>Reference to “international organizations”</td>
<td></td>
<td>IMO may take these guidelines into account when implementing the duty of technical assistance.</td>
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<td>204 to 206</td>
<td>Monitoring and environmental assistance</td>
<td>Monitoring of the risks or effects of pollution, publication of reports, assessing potential effects of activities</td>
<td>Reference to “competent international organizations”</td>
<td></td>
<td>IMO’s participation and contribution to GESAMP.</td>
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<tr>
<td>Articles of UNCLOS</td>
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<td>Specific provisions on the subject-matter</td>
<td>Relationship between UNCLOS and IMO instruments</td>
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<tr>
<td>208 (also article 214 with respect to enforcement)</td>
<td>Pollution from seabed activities and from artificial islands, installations and structures subject to national jurisdiction</td>
<td>Establishment by States, through competent international organizations, of international regulations</td>
<td>Reference to “competent international organizations”</td>
<td>Res. A.671(16) Res. A.672(16) OPRC OPRC PROT 2000</td>
<td>Partly covered in MARPOL 73/78, Annex I, reg. 21. Further regulation of offshore activities is under discussion (but not agreed at this time). Pollution directly arising from exploration/exploitation is however not the direct concern of IMO, the Organization may contribute to the establishment of international regulations.</td>
</tr>
<tr>
<td>210</td>
<td>Pollution by dumping</td>
<td>Paragraph 4: Adoption by States, through the competent international organization, of global rules, standards and recommended practices and procedures</td>
<td>Reference to “competent international organizations”</td>
<td>London Convention Resolution of the Consultative Meetings of Contracting Parties, LC Protocol, 1996</td>
<td>1. IMO is a competent international organization. 2. The Consultative Meeting concluded that there were no fundamental inconsistencies between UNCLOS and the London Convention.</td>
</tr>
<tr>
<td>211</td>
<td>Pollution from vessels</td>
<td>Paragraph 1: Adoption by States, through the competent international organization, of international rules and standards concerning vessel-source pollution, and promotion of routeing systems to minimize marine pollution</td>
<td>Reference to the “competent international organization”</td>
<td>MARPOL SOLAS V/8 (renumbered as V/10 in 2000 amendments) Res. A.572(14) Res. A.858(20) AFS, 2001 Res. A.962(23)</td>
<td>IMO is the competent international organization for establishing international rules and standards on vessel-source pollution.</td>
</tr>
<tr>
<td>Articles of UNCLOS</td>
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|                   |               | Paragraph 2: Duty of flag States to adopt laws and regulations on vessel-source pollution | Reference to “generally accepted international rules and standards established through the competent international organization” | MARPOL | 1. IMO is the competent international organization.  
2. National legislation shall have at least the same effect as MARPOL, which represents the minimum standards for flag States. |
<p>|                   |               | Paragraph 3: Duty of States to give due publicity and to communicate to the competent international organization their particular port entry requirements | Reference to the “competent international organization” | | 1. IMO is the competent international organization. |
|                   |               | Paragraph 5: Adoption by coastal States of laws and regulations for the prevention of vessel-source pollution in their EEZ conforming to generally accepted international rules and standards established through the competent international organization | Reference to “generally accepted international rules and standards established through the competent international organization” | MARPOL | IMO is the competent international organization for establishing international rules and standards concerning vessel-source pollution. |
|                   |               | Paragraph 6: Particular, clearly defined area for the prevention of vessel-source pollution in the coastal State’s EEZ | | MARPOL A.982(24) SOLAS COLREG | MEPC 46(2001) revised the guidelines for designation of Special Areas under MARPOL 73/78 and guidelines for the identification and designation of Particularly Sensitive Sea Areas. |</p>
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<td>Paragraph 6(a) Requirements and procedures to obtain recognition of a particular, clearly defined area</td>
<td>Reference to “consultations through the competent international organization with any other States concerned”</td>
<td></td>
<td>IMO is the competent international organization.</td>
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<td></td>
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<td>Paragraph 6(c) Additional laws and regulations for the particular, clearly defined area on discharges or navigational practices</td>
<td>Reference to “generally accepted international rules and standards” on the design, construction, Manning or equipment of ships</td>
<td>SOLAS Load Lines MARPOL STCW</td>
<td>The generally accepted international regulations represent the highest standards.</td>
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<td>Paragraph 7: International rules and standards under article 211 include those relating to notification to coastal States in cases of incidents or maritime casualties</td>
<td>This paragraph complements article 211(1)</td>
<td>MARPOL (article 8) and Protocol I OPRC (article 4)</td>
<td>IMO is the competent international organization for establishing international rules and standards concerning prompt notification of coastal States affected by pollution incidents.</td>
</tr>
<tr>
<td>212</td>
<td>Pollution from or through the atmosphere</td>
<td>Paragraph 1: National legislation must take into account internationally agreed regulations</td>
<td>Reference to “internationally agreed rules, standards and recommended practices and procedures”</td>
<td>MARPOL Annex VI (1997) (with the development of an IMO strategy for the emission of climate gases from ships)</td>
<td>IMO is competent for establishing global rules and standards.</td>
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<td></td>
<td></td>
<td>Paragraph 3: Establishment of global and regional rules, standards through competent international organizations</td>
<td>Reference to “competent international organizations”</td>
<td>A.963(23)</td>
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<tr>
<td>Articles of UNCLOS</td>
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