



IMO

E

ASSEMBLY
22nd session
Agenda item 11

A 22/Res.927
15 January 2002
Original: ENGLISH

Resolution A.927(22)

**Adopted on 29 November 2001
(Agenda item 11)**

**GUIDELINES FOR THE DESIGNATION OF SPECIAL AREAS UNDER
MARPOL 73/78 AND GUIDELINES FOR THE IDENTIFICATION AND
DESIGNATION OF PARTICULARLY SENSITIVE SEA AREAS**

THE ASSEMBLY,

RECALLING Article 15(j) of the Convention on the International Maritime Organization concerning the functions of the Assembly in relation to regulations and guidelines concerning maritime safety, the prevention and control of marine pollution from ships and other matters concerning the effect of shipping on the marine environment,

RECALLING ALSO resolution A.720(17) by which the Assembly adopted the Guidelines for the Designation of Special Areas and the Identification of Particularly Sensitive Sea Areas and requested the Marine Environment Protection Committee and the Maritime Safety Committee to keep the Guidelines under review,

RECALLING FURTHER resolution A.885(21) by which the Assembly adopted Procedures for the Identification of Particularly Sensitive Sea Areas and the Adoption of Associated Protective Measures and Amendments to the Guidelines contained in resolution A.720(17), and also requested the Marine Environment Protection Committee and the Maritime Safety Committee to keep these Guidelines under review,

RECOGNIZING the need to update and simplify the Guidelines in order to clarify the procedures for the designation of Special Areas under MARPOL 73/78 and for the identification and subsequent designation of Particularly Sensitive Sea Areas and the adoption of associated protective measures,

HAVING CONSIDERED the recommendations made by the Marine Environment Protection Committee at its forty-sixth session:

1. ADOPTS:

- (a) new Guidelines for the Designation of Special Areas under MARPOL 73/78 as set out in Annex 1, which supersede chapter 2 of the Annex to resolution A.720(17); and
- (b) new Guidelines for the Identification and Designation of Particularly Sensitive Sea Areas as set out in Annex 2, which supersede chapter 3 of the Annex to resolutions A.720(17) and A.885(21);

For reasons of economy, this document is printed in a limited number. Delegates are kindly asked to bring their copies to meetings and not to request additional copies.

2. INVITES Governments to apply the new Guidelines when proposing the designation of a Special Area under MARPOL 73/78 or a Particularly Sensitive Sea Area;
3. REQUESTS both the Marine Environment Protection Committee and the Maritime Safety Committee to keep the new Guidelines under review; and
4. REVOKES resolutions A.720(17) and A.885(21).

ANNEX 1

GUIDELINES FOR THE DESIGNATION OF SPECIAL AREAS UNDER MARPOL 73/78

1 INTRODUCTION

1.1 The purpose of these Guidelines is to provide guidance to Contracting Parties to the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78) in the formulation and submission of applications for the designation of Special Areas under Annexes I, II, and V to the Convention. These Guidelines also ensure that 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 and provide for the assessment of such applications by IMO. Contracting Parties should also review and comply with the applicable provisions of Annexes I, II, and V to the Convention in addition to these Guidelines.

2 ENVIRONMENTAL PROTECTION FOR SPECIAL AREAS UNDER MARPOL 73/78

General

2.1 MARPOL 73/78, in Annexes I, II and V, defines certain sea areas as Special Areas in relation to the type of pollution covered by each Annex. A Special Area is defined as "a sea area where for recognised technical reasons in relation to its oceanographical and ecological conditions and to the particular character of its traffic, the adoption of special mandatory methods for the prevention of sea pollution by oil, noxious liquid substances, or garbage, as applicable, is required." Under the Convention, these Special Areas are provided with a higher level of protection than other areas of the sea.

2.2 A Special Area may encompass the maritime zones of several States, or even an entire enclosed or semi-enclosed area. Special Area designation should be made on the basis of the criteria and characteristics listed in paragraphs 2.3 to 2.6 to avoid the proliferation of such areas.

Criteria for the designation of a Special Area

2.3 The criteria which must be satisfied for an area to be given Special Area status are grouped into the following categories:

- oceanographic conditions;
- ecological conditions; and
- vessel traffic characteristics.

Generally, information on each category should be provided in a proposal for designation. Additional information that does not fall within these categories may also be considered.

Oceanographic conditions

2.4 The area possesses oceanographic conditions which may cause the concentration or retention of harmful substances in the waters or sediments of the area, including:

- 1 particular circulation patterns (e.g. convergence zones and gyres) or temperature and salinity stratification;
- 2 long residence time caused by low flushing rates;
- 3 extreme ice state; and
- 4 adverse wind conditions.

Ecological conditions

2.5 Conditions indicating that protection of the area from harmful substances is needed to preserve:

- 1 depleted, threatened or endangered marine species;
- 2 areas of high natural productivity (such as fronts, upwelling areas, gyres);
- 3 spawning, breeding and nursery areas for important marine species and areas representing migratory routes for sea-birds and marine mammals;
- 4 rare or fragile ecosystems such as coral reefs, mangroves, seagrass beds and wetlands; and
- 5 critical habitats for marine resources including fish stocks and/or areas of critical importance for the support of large marine ecosystems.

Vessel traffic characteristics

2.6 The sea area is used by ships to an extent that the discharge of harmful substances by ships when operating in accordance with the requirements of MARPOL 73/78 for areas other than Special Areas would be unacceptable in the light of the existing oceanographic and ecological conditions in the area.

Implementation

2.7 The requirements of a Special Area designation can only become effective when adequate reception facilities are provided for ships in accordance with the provisions of MARPOL 73/78.

Other considerations

2.8 The threat to amenities posed by the discharge of harmful substances from ships operating in accordance with the MARPOL 73/78 requirements for areas other than Special Areas may strengthen the argument for designating an area a Special Area.

2.9 The extent to which the condition of a sea area is influenced by other sources of pollution such as pollution from land-based sources, dumping of wastes and dredged materials, as well as atmospheric deposition should be taken into account. Proposals would be strengthened if measures are being, or will be, taken to prevent, reduce and control pollution of the marine environment by these sources of pollution.

2.10 Consideration should be given to the extent to which a management regime is used in managing the area. Proposals for designation of a Special Area would be strengthened if measures are being taken to manage the area's resources.

3 PROCEDURES FOR THE DESIGNATION OF A SPECIAL AREA

3.1 A proposal to designate a given sea area as a Special Area should be submitted to the Marine Environment Protection Committee (MEPC) for its consideration in accordance with the rules adopted by the IMO for submission of papers.

3.2 A proposal to designate a sea area as a Special Area should contain:

- 1 a draft amendment to MARPOL 73/78 as the formal basis for the designation; and
- 2 a background document setting forth all the relevant information to explain the need for the designation.

3.3 The background document should contain the following information:

- 1 a definition of the area proposed for designation, including its precise geographical co-ordinates. A reference chart is essential.
- 2 an indication of the type of Special Area proposed. Proposals may be made simultaneously with respect to Annexes I, II and V of MARPOL 73/78, but proposals for each Annex should be presented and evaluated separately.
- 3 a general description of the area, including information regarding:
 - oceanography
 - ecological characteristics
 - social and economic value
 - scientific and cultural significance
 - environmental pressures from ship-generated pollution
 - other environmental pressures
 - measures already taken to protect the area.

This general description may be supported by annexes containing more detailed material, or by references to readily available documentation.

- 4 an analysis of how the sea area in question fulfils the criteria for the designation of Special Areas set out in paragraphs 2.3 to 2.6.
- 5 information on the availability of adequate reception facilities in the proposed Special Area.

3.4 The formal amendment procedure applicable to proposals for the designation of Special Areas is set out in article 16 of MARPOL 73/78.

Detailed discharge requirements

3.5 For detailed requirements relating to discharges under Annexes I, II and V to MARPOL 73/78, please refer to the latest version of the Convention in force.

ANNEX 2

**GUIDELINES FOR THE IDENTIFICATION AND DESIGNATION OF
PARTICULARLY SENSITIVE SEA AREAS****1 INTRODUCTION**

1.1 The Marine Environment Protection Committee (MEPC) of the International Maritime Organization (IMO) began its study of the question of Particularly Sensitive Sea Areas (PSSAs) in response to a resolution of the International Conference on Tanker Safety and Pollution Prevention of 1978. The discussions of this concept from 1986 to 1991 culminated in the adoption of Guidelines for the Designation of Special Areas and the Identification of Particularly Sensitive Sea Areas by Assembly resolution A.720(17) in 1991. The procedures contained in this document were further elaborated upon by Assembly resolution A.885(21), adopted in 1999. In a continuing effort to provide a clearer understanding of the concepts set forth in the Guidelines, the MEPC decided to separate the issues of the designation of Special Areas and the identification of Particularly Sensitive Sea Areas into two documents. This document sets forth the Guidelines for the Identification and Designation of PSSAs.

1.2 A PSSA is an area that needs special protection through action by IMO because of its significance for recognized ecological, socio-economic, or scientific reasons and because it may be vulnerable to damage by international shipping activities. In order for the area to be identified as a PSSA, it must meet one of the criteria listed below in section 4. As of 2001, two particularly sensitive sea areas have been designated by IMO: the Great Barrier Reef (MEPC.44(30)) and the Archipelago of Sabana-Camaguey (MEPC.74(40)). Details of designated areas are provided in the Appendix.

1.3 Many international and regional instruments encourage the protection of areas important for the conservation of biological diversity as well as other areas with high ecological, cultural, historical/archaeological, socio-economic or scientific significance. They further call on their Parties to protect such areas from activities, including shipping operations, that may undermine their values.

1.4 The purpose of these Guidelines is to:

- (a) provide guidance to IMO Member Governments in the formulation and submission of applications for designation of PSSAs;
- (b) ensure that in that 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 and the protective measures to minimize that risk; and
- (c) provide for the assessment of such applications by the IMO.

1.5 Identification of any PSSA and the adoption of associated protective measures requires consideration of three integral components: the particular environmental conditions of the area to be identified, the vulnerability of such area to damage by international maritime activities, and the availability of associated protective measures within the competence of IMO to address risks from these shipping activities.

2 INTERNATIONAL SHIPPING ACTIVITIES AND THE MARINE ENVIRONMENT

2.1 Shipping activity can constitute an environmental hazard to the marine environment in general and consequently even more so to environmentally and/or ecologically sensitive areas. Environmental hazards associated with shipping include:

- (a) operational discharges;
- (b) accidental or intentional pollution; and
- (c) physical damage to marine habitats or organisms.

2.2 In the course of routine operations and accidents, ships may release a wide variety of substances either directly into the marine environment or indirectly through the atmosphere. Such pollutants include oil and oily mixture, noxious liquid substances, sewage, garbage, noxious solid substances, anti-fouling paints, foreign organisms and even noise. Many of these substances can adversely affect the marine environment and the living resources of the sea. Pollutants may also damage the environment as a consequence of shipping accidents. In addition, ships may cause harm to marine organisms and their habitats through physical impact. Habitats may be smothered through grounding and ships have been known to strike large marine mammals such as whales.

3 PROCESS FOR THE DESIGNATION OF PARTICULARLY SENSITIVE SEA AREAS

3.1 The IMO is the only international body responsible for designating areas as Particularly Sensitive Sea Areas and adopting associated protective measures. An application to IMO for designation of a PSSA and the adoption of associated protective measures, or an amendment thereto, may be submitted only by a proposing Member Government. Where two or more Governments have a common interest in a particular area, they should formulate a co-ordinated proposal. The proposal should contain integrated measures and procedures for co-operation between the jurisdictions of the proposing Member Governments.

3.2 Member Governments wishing to have the IMO designate a PSSA should submit an application to the MEPC based on the criteria outlined in section 4 and proposed associated protective measures as outlined in section 6. Applications should be submitted in accordance with the procedures set forth in section 7 and the rules adopted by the IMO for submission of papers.

4 ECOLOGICAL, SOCIO-ECONOMIC, OR SCIENTIFIC CRITERIA FOR THE IDENTIFICATION OF A PARTICULARLY SENSITIVE SEA AREA

4.1 The following criteria apply to the identification of PSSAs only with respect to the adoption of measures to protect such areas against damage from international shipping activities.

4.2 These criteria do not, therefore, apply to the identification of such areas for the purpose of establishing whether they should be protected from dumping activities, since that is implicitly covered by the London Convention 1972 (the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972) and the 1996 Protocol to that Convention.

4.3 The criteria relate to PSSAs within and beyond the limits of the territorial sea. They can be used by IMO to designate PSSAs beyond the territorial sea with a view to the adoption of international protective measures regarding pollution and other damage caused by ships. They may also be used by national administrations to identify Particularly Sensitive Sea Areas within their territorial seas.

4.4 In order to be identified as a PSSA, the area should meet at least one of the criteria listed below and should be at risk from international shipping activities, taking into consideration the factors listed in section 5.

Ecological criteria

4.4.1 Uniqueness or rarity - An ecosystem can be unique or rare. An area or ecosystem is unique if it is "the only one of its kind". Habitats of rare, threatened, or endangered species that occur only in one area are an example. An area or ecosystem is rare if it only occurs in a few locations or has been seriously depleted across its range. An ecosystem may extend beyond country borders, assuming regional or international significance. Nurseries or certain feeding areas may also be rare or unique.

4.4.2 Critical habitat - A sea area may be a critical habitat for fish stocks or rare or endangered marine species, or an area of critical importance for the support of large marine ecosystems.

4.4.3 Dependency - Ecological processes of such areas are highly dependent on biotically structured systems (e.g. coral reefs, kelp forests, mangrove forests, seagrass beds). Such biotically structured ecosystems often have high diversity, which is dependent on the structuring organisms. Dependency also embraces areas representing the migratory routes of marine fish, reptiles, birds and mammals.

4.4.4 Representativeness - These areas have highly representative ecological processes, or community or habitat types or other natural characteristics. Representativeness is the degree to which an area represents a habitat type, ecological process, biological community, physiographic feature or other natural characteristic.

4.4.5 Diversity - These areas have a high variety of species or genetic diversity or include highly varied ecosystems, habitats, and communities. However, this criterion may not apply to some simplified ecosystems, such as pioneer or climax communities, or areas subject to disruptive forces, such as shores exposed to high-energy wave action.

- 4.4.6 Productivity - The area has a high natural biological productivity. Production is the net result of biological and physical processes which result in an increase in biomass in areas of high natural productivity such as oceanic fronts, upwelling areas and some gyres.
- 4.4.7 Spawning or breeding grounds - The area may be a critical spawning or breeding ground or nursery area for marine species which may spend the rest of their life-cycle elsewhere, or may be a migratory route for sea birds or marine mammals.
- 4.4.8 Naturalness - The area has a high degree of naturalness, as a result of the lack of human-induced disturbance or degradation.
- 4.4.9 Integrity - The area is a biologically functional unit, an effective, self-sustaining ecological entity. The more ecologically self-contained the area is the more likely it is that its values can be effectively protected.
- 4.4.10 Vulnerability - The area is highly susceptible to degradation by natural events or the activities of people. Biotic communities associated with coastal habitats may have a low tolerance to changes in environmental conditions, or they may exist close to the limits of their tolerance (defined by water temperature, salinity, turbidity or depth). They may suffer such natural stresses as storms or prolonged emersion that determine the extent of their development. Additional stress (such as domestic or industrial pollution, excessive reduction in salinity, and increases in turbidity from watershed mismanagement) may determine whether there is total, partial, or no recovery from natural stress, or the area is totally destroyed. Certain oceanographic and meteorological factors could cause an area to be vulnerable or increase its vulnerability, for example by causing the concentration or retention of harmful substances in the waters or in the sediment of the area, or by otherwise exposing the area to harmful substances. These conditions include circulation patterns such as convergence zones, oceanic fronts and gyres, long residence times caused by low flushing rates, the occurrence of seasonal or permanent density stratification which can result in oxygen depletion in the bottom layer, as well as adverse ice states and wind conditions. An area already subject to environmental stresses owing to human activities or natural phenomena (e.g. natural oil seepage) may be in need of special protection from further stress, including stress arising from international shipping activities.
- 4.4.11 Bio-geographic importance - An area that either: contains rare biogeographic qualities or is representative of a biogeographic "type" or types, or contains unique or unusual geological features.

Social, cultural and economic criteria

- 4.4.12 Economic benefit - The area is of particular importance to utilization of living marine resources.
- 4.4.13 Recreation - The area has special significance for recreation and tourism.
- 4.4.14 Human dependency - The area is of particular importance for the support of traditional subsistence and/or cultural needs of the local human population.

Scientific and educational criteria

4.4.15 Research - The area has high scientific interest.

4.4.16 Baseline and monitoring studies - The area provides suitable baseline conditions with regard to biota or environmental characteristics.

4.4.17 Education - The area offers the opportunity to demonstrate particular natural phenomena.

4.5 In many cases a PSSA may be identified within a Special Area and vice versa. It should be noted that the criteria with respect to the identification of PSSAs and the criteria for the designation of Special Areas are not mutually exclusive.

5 OTHER CONSIDERATIONS FOR THE IDENTIFICATION OF A PARTICULARLY SENSITIVE SEA AREA

5.1 In addition to meeting at least one of the criteria listed in 4.4, the area should be at risk from international shipping activities. This involves consideration of the following factors:

Vessel traffic characteristics

5.1.1 Operational factors - Types of maritime activities (e.g. small fishing boats, small pleasure craft, oil and gas rigs) in the proposed area that may increase risk to the safety of navigation.

5.1.2 Vessel types - Types of vessels passing through or adjacent to the area (e.g. high-speed vessels, large tankers, or bulk carriers with small under-keel clearance).

5.1.3 Traffic characteristics - Volume or concentration of traffic, vessel interaction, distance offshore or other dangers to navigation, are such as to involve greater risk of collision or grounding.

5.1.4 Harmful substances carried - Type and quantity of substances on board, whether cargo, fuel or stores, that would be harmful if released into the sea.

Natural factors

5.1.5 Hydrographical - Water depth, bottom and coastline topography, lack of proximate safe anchorages and other factors which call for increased navigational caution.

5.1.6 Meteorological - Prevailing weather, wind strength and direction, atmospheric visibility and other factors which increase the risk of collision and grounding and also the risk of damage to the sea area from discharges.

5.1.7 Oceanographic - Tidal streams, ocean currents, ice, and other factors which increase the risk of collision and grounding and also the risk of damage to the sea area from discharges.

In proposing an area as a PSSA and in considering what associated protective measures should be taken, other information that might be helpful includes the following:

- any evidence that international shipping activities are causing damage and whether damage is of a recurring or cumulative nature;
- any history of groundings, collisions, or spills in the area and any consequences of such incidents;
- any foreseeable circumstances or scenarios under which significant damage could occur;
- stresses from other environmental sources; and
- any measures already in effect and their actual or anticipated beneficial impact.

6 ASSOCIATED PROTECTIVE MEASURES

6.1 In the context of these Guidelines, associated protective measures for PSSAs are limited to actions within the purview of IMO and include the following options:

6.1.1 designation of an area as a Special Area under Annexes I, II or V, or a SO_x emission control area under Annex VI of MARPOL 73/78, or application of special discharge restrictions to vessels operating in a PSSA. Procedures and criteria for the designation of Special Areas are contained in the Guidelines for the Designation of Special Areas. Criteria and procedures for the designation of SO_x emission control areas may be found in Annex VI to MARPOL 73/78;

6.1.2 adoption of ships' routeing and reporting systems near or in the area, under the International Convention for the Safety of Life at Sea (SOLAS) and in accordance with the General Provisions on Ships' Routeing and the Guidelines and Criteria for Ship Reporting Systems. For example, a PSSA may be designated as an area to be avoided or it may be protected by other ships' routeing or reporting systems;

6.1.3 development and adoption of other measures aimed at protecting specific sea areas against environmental damage from ships, such as compulsory pilotage schemes or vessel traffic management systems.

6.2 Consideration should also be given to the potential for the area to be listed on the World Heritage List, declared a Biosphere Reserve, or included on a list of areas of international, regional, or national importance, or if the area is already the subject of such international, regional, or national conservation action or agreements.

6.3 In some circumstances, a proposed PSSA may include within its boundaries a buffer zone, in other words, an area contiguous to the site-specific feature (core area) for which specific protection from shipping is sought. However, the need for such a buffer zone should be justified in terms of how it would contribute to the adequate protection of the core area.

7 PROCEDURE FOR THE DESIGNATION OF PARTICULARLY SENSITIVE SEA AREAS AND THE ADOPTION OF ASSOCIATED PROTECTIVE MEASURES

7.1 If an application for PSSA designation is submitted which does not contain a proposal for an associated protective measure or measures, the proposing Member Government should submit the types of measures it is considering. A proposal for at least one associated protective measure shall be submitted within two years of the approval in principle of the PSSA.

7.2 Alternatively, if no associated protective measure is being proposed because IMO measures already exist to protect the area, then the application should show how the area is already being protected by such measures.

7.3 The application should first clearly set forth a summary of the objectives of the proposed PSSA designation, the location of the area, the need for protection and the proposal for associated protective measures. The summary should include the reasons why the proposed associated protective measures are the preferred method for providing protection for the area to be identified as a PSSA.

7.4 Each application should then consist of two parts.

7.4.1 Part I - *Description, significance of the area and vulnerability*

- .1 *Description* - a detailed description of the location of the proposed area, along with a chart on which the location of area is clearly marked, should be submitted with the application.
- .2 *Significance of the area* - the application should state the significance of the area on the basis of recognized ecological, socio-economic, or scientific reasons and should explicitly refer to the criteria listed above in section 4.
- .3 *Vulnerability of the area to damage by international shipping activities* - the application should provide an explanation of the nature and extent of risk that international shipping activities pose to the environment of the proposed area, noting the factors listed in Section 5. The application should explain the effects of the damage on the environmental characteristics of the proposed area and indicate any potential economic harm that may result from such damage.

7.4.2 Part II - *Appropriate associated protective measures and IMO's competence to adopt such measures*

- .1 The application should propose the associated protective measures which are available through IMO and show how they provide the needed protection from the threats of damage posed by international maritime activities occurring in and around the area.
 - (a) The application should identify the proposed measures which may include:
 - (i) any measure that is already available in an existing instrument; or
 - (ii) any measure that does not yet exist but that should be available as a generally applicable measure and that falls within the competence of IMO; or
 - (iii) any measure proposed for adoption in the territorial sea* or pursuant to Article 211(6) of the United Nations Convention on the Law of the Sea.

* This provision does not derogate from the rights and duties of coastal States in the territorial sea as provided for in the United Nations Convention on the Law of the Sea.

- (b) These measures may include ships' routing measures; discharge restrictions; operational criteria; and prohibited activities, and should be specifically tailored to meet the need of the area at risk.
- .2 The application should clearly specify the category or categories of ships to which the proposed associated protective measures would apply, consistent with the provisions of the United Nations Convention on the Law of the Sea, including those related to vessels entitled to sovereign immunity
 - .3 The application should include the steps that the proposing Member Government has taken or will take to pursue the adoption of a generally applicable measure or the recognition of the proposed measure by IMO.
 - .4 The application should indicate the possible impact of any proposed measures on the safety and efficiency of navigation, taking into account the area of the ocean in which the proposed measures are to be implemented. The application should set forth such information as:
 - (a) consistency with the General Provisions on Ships' Routing, as amended;
 - (b) implications for vessel safety; and
 - (c) impact on vessel operations.

7.5 An application for PSSA designation should address all relevant considerations and criteria in these Guidelines, and should include relevant supporting information for each such item.

7.6 The application should contain a summary of steps taken, if any, by the proposing Member Government to date to protect the proposed area.

7.7 The proposing Member Government should also include in the application the details of action to be taken pursuant to domestic law for the failure of a ship to comply with the requirements of the associated protective measures. Any action taken should be consistent with international law as reflected in the United Nations Convention on the Law of the Sea.

8 CRITERIA FOR ASSESSMENT OF APPLICATIONS FOR DESIGNATION OF PARTICULARLY SENSITIVE SEA AREAS AND THE ADOPTION OF ASSOCIATED PROTECTIVE MEASURES

8.1 IMO should consider each application, or amendment thereto, submitted to it by a proposing Member Government on a case-by-case basis to determine whether identification of the area as a PSSA and the adoption of associated protective measures are warranted.

8.2 In assessing each proposal, IMO should take into account the criteria which are to be included in each application as set forth above in section 4 of these Guidelines. In particular, IMO should consider:

- .1 the full range of protective measures available and determine whether the proposed associated protective measures are appropriate to address effectively the

assessed risk of damage to the proposed area by identified international shipping activities;

- .2 whether such measures might result in increased potential for significant adverse effects by international shipping activities on the environment outside the proposed PSSA; and
- .3 whether the size of the area is commensurate with that necessary to address the identified need.

8.3 The procedure for considering a PSSA application by IMO is as follows:

- .1 the Marine Environment Protection Committee (MEPC) should bear primary responsibility within IMO for considering PSSA applications and all applications should first be submitted to the MEPC;
- .2 MEPC should initially review the application to determine whether it addresses the provisions of the Guidelines. If it does, the MEPC may approve in principle the PSSA, and should refer the application, with its associated protective measures, to the appropriate Sub-Committee or Committee (which could be the MEPC itself) that is responsible for addressing the particular associated protective measures proposed for the area. The Sub-Committee may seek the advice of the MEPC on issues pertinent to the application. The MEPC should make no final determination to designate the PSSA until after the associated protective measures are considered by the pertinent Sub-Committee or Committee;
- .3 for measures that require approval by the Maritime Safety Committee (MSC), the Sub-Committee should forward its recommendation for approval of the associated protective measures to the MSC or, if the Sub-Committee rejects the measures, it should inform the MSC and MEPC and provide a statement of reasons for its decision. The MSC should consider any such recommendations and, if the measures are to be adopted, it should notify the MEPC of its decision;
- .4 if an application is submitted without proposed associated protective measures, except as noted in 7.2, the MEPC may approve in principle the identification of the area as a PSSA, pending submission of at least one proposed associated protective measure within two years of such approval and subsequent adoption of at least one associated protective measure;
- .5 if the application is rejected, the MEPC shall notify the proposing Member Government and provide a statement of reasons for its decision; and
- .6 after approval by the appropriate Sub-Committee or Committee of the associated protective measures, the MEPC may designate the area as a PSSA.

8.4 IMO should provide a forum for the review and re-evaluation of any associated protective measure adopted, as necessary, taking into account pertinent comments, reports, and observations of the measures. Member Governments which have ships operating in the area of the designated PSSA are encouraged to bring any concerns with the associated protective measures to IMO so that any necessary adjustments may be made. Member Governments that originally submitted the application for identification with the associated protective measures, should also bring any

concerns and proposals for additional measures or modifications to any associated protective measure or the PSSA itself to IMO.

8.5 After the designation of a PSSA and its associated protective measures, IMO should ensure that the effective date of implementation is as soon as possible based on the rules of IMO and consistent with international law.

8.6 IMO should, in assessing applications for designation of PSSAs and their associated protective measures, take into account the technical and financial resources available to developing Member Governments and those with economies in transition.

9 IMPLEMENTATION OF DESIGNATED PSSAs AND THE ASSOCIATED PROTECTIVE MEASURES

9.1 When a PSSA is finally designated, all associated protective measures should be identified on charts in accordance with the symbols and methods of the International Hydrographic Organization (IHO). Proposing Member Governments may also chart designated PSSAs in accordance with appropriate national symbols; however, if an international symbol is adopted by the IHO, proposing Member Governments should mark PSSAs in accordance with such symbol and other IHO recommended methods.

9.2 Proposing Member Governments should ensure that any associated protective measure is implemented in accordance with international law as reflected in the United Nations Convention on the Law of the Sea.

9.3 Member Governments should take all appropriate steps to ensure that ships flying their flag comply with the associated protective measures adopted to protect the designated PSSA. Those Member Governments which have received information of an alleged violation of an associated protective measure by a ship flying their flag should provide the Government which has reported the offence with the details of any appropriate action taken.

APPENDIX**SUMMARIES OF EXISTING PSSAs****1. Great Barrier Reef, Australia**

The Great Barrier Reef region was designated as a Particularly Sensitive Sea Area in November 1990 (MEPC 44(30)).

The Great Barrier Reef is the largest system of corals and associated life forms anywhere in the world. The area extends approximately 2,300 km along the eastern coast of Queensland, Australia from just north of Fraser Island in the south (24 30'S) to the latitude of Cape York in the north (10 41'S), and covers an area of 348,000 sq. km on the continental shelf of Australia. It is acknowledged as an area of great natural beauty and is listed on the World Heritage List.

Characteristics which contribute to giving this area special significance:*Ecological criteria*

Uniqueness: largest single collection of coral reefs in the world, which biologically supports the most diverse ecosystem known to man.

Dependency: outstanding example of a biotic structured ecosystem of high diversity dependent on the structuring organisms.

Representativeness: largest and most complex example of a coral reef ecosystem in the world.

Diversity: the most diverse ecosystem known to man.

Productivity: numerous areas of high biological productivity.

Naturalness: apart from some very small areas, is still in pristine condition and has not been unduly affected by human activity.

Integrity: contains all ecosystem components required for the continued existence of the species within that system. It may be regarded as a biologically functional unit.

Vulnerability: coral reefs are susceptible to various forms of contaminants in seawater. In addition, physical destruction of reef structures through vessel impacts, anchors, etc. can take many years to be repaired. Various sectors of the region have relatively low flushing rates due to the blocking effect of the reefs. Contaminants in such sectors can persist for lengthy periods of time.

Social, cultural and economic criteria

Economic benefit: commercial fishing and tourism, recreational pursuits including fishing, diving and camping, traditional fishing, scientific research and shipping all occur in the region. It is also a significant shipping route with around 2000 ships passing through each year.

Recreation: commercial tourism is provided by commercial passenger boats which carry around 1.2 million visitors days per annum. The trips range from day trips to extended cruises.

Human dependency: the degree of dependence of the Australian community on the Reef is high. The economic value of the Reef is approximately \$1,000 million per annum.

Historic shipwrecks: the register of the National Estate indicates that the Great Barrier Reef region contains some thirty known shipwrecks of historic importance.

Scientific and educational criteria

Research: an area of high scientific interest. Research within the region is focussed at the four island research stations.

Baseline and monitoring studies: areas significant in terms of their potential for scientific research are protected by zoning plans which allow research to be conducted while protecting the areas from other disturbing influences.

Education: the broad range of natural phenomena which may be observed in the region make it an area of the highest educational value.

Historical value: the northern sector is particularly important in the history and culture of the indigenous Aboriginal groups of the coastal areas of north-east Australia. The hazards of navigation resulted in the construction of a large number of lighthouses, some of which have particular historical importance.

Protective Measures

Compulsory Pilotage: On 1 October 1991, the Australian government declared compulsory pilotage areas for the Inner Route between Cairns (latitude 16° 40' S) and Cape York (latitude 10° 41' S) and for Hydrographers Passage. All vessels of 70 metres or more in length and all loaded oil tankers, chemical carriers and gas carriers of any length, must use the services of a pilot licensed by the Australian Maritime Safety Authority (AMSA).

IMO-recommended Pilotage: The International Maritime Organization (IMO) has recommended under resolution A.710(17) that vessels of 70 metres in length and over and all loaded oil tankers, chemical tankers or liquefied gas carriers, irrespective of size, use the pilotage services licensed under Australian Commonwealth, State or Territory law when navigating the Torres Strait and the Great North East channel.

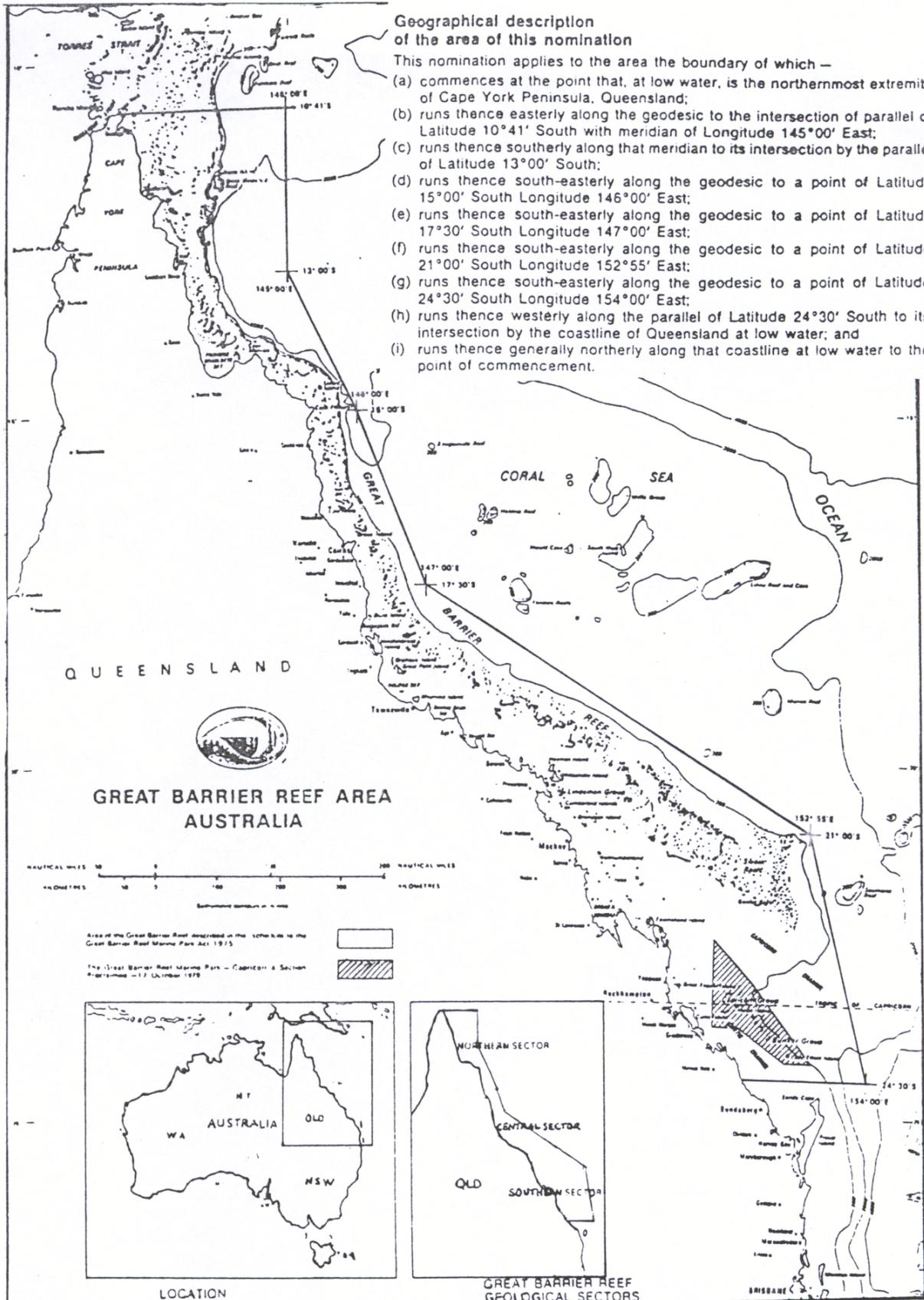
Mandatory reporting: in 1997 Australia introduced a mandatory ship reporting system for all ships 50 metres or more in length, all tankers and INF Code ships, and vessels towing where the ship and tow exceed 150 metres.

SCHEDULE 1

Geographical description of the area of this nomination

This nomination applies to the area the boundary of which —

- (a) commences at the point that, at low water, is the northernmost extremity of Cape York Peninsula, Queensland;
- (b) runs thence easterly along the geodesic to the intersection of parallel of Latitude 10°41' South with meridian of Longitude 145°00' East;
- (c) runs thence southerly along that meridian to its intersection by the parallel of Latitude 13°00' South;
- (d) runs thence south-easterly along the geodesic to a point of Latitude 15°00' South Longitude 146°00' East;
- (e) runs thence south-easterly along the geodesic to a point of Latitude 17°30' South Longitude 147°00' East;
- (f) runs thence south-easterly along the geodesic to a point of Latitude 21°00' South Longitude 152°55' East;
- (g) runs thence south-easterly along the geodesic to a point of Latitude 24°30' South Longitude 154°00' East;
- (h) runs thence westerly along the parallel of Latitude 24°30' South to its intersection by the coastline of Queensland at low water; and
- (i) runs thence generally northerly along that coastline at low water to the point of commencement.



2. Archipelago of Sabana-Camaguey, Cuba

The Sabana-Camaguey Archipelago was designated as a PSSA in September 1997 (MEPC.74(40)). It is located in the north-central portion of the Republic of Cuba, extending for 465 kilometres between the Hicacos Peninsula and the Bay of Nuevitas. It is the most extensive island sub-group of the Cuban Archipelago, comprising more than 2,515 islands and small keys.

Within this zone, consideration must be given to the coral reef that borders the archipelago to the North, which gives it good protection and a high conservation value, particularly in view of its good state of preservation and the ecological functions it fulfils.

Along its outer edge there is a coral reef 400 kilometres long, considered as one of the most notable of the Wider Caribbean Region on account of its size and the diversity of its species.

Characteristics which contribute to giving this area special significance:

Ecological criteria

The Archipelago is a highly singular and unique territory particularly on account of its natural scenery and associated biodiversity. Its singularity derives from the predominance of cumulative carbonaceous island complexes which have features not found in the rest of the Cuban sub-archipelagos.

This group of islands presents highly significant features, particularly in terms of its biotic resources, on account of which it has been categorised as an independent and clearly defined bio-geographical, ecological and scenic unit.

Its importance in this connection is not only national but also regional, since within this area almost all the habitats, ecosystems and biocenosis found in the different Caribbean islands are represented. The particular ecological sensitivity of this territory lies in its high degree of interdependency, both internal and external. Internally, there is a high degree of interaction and interdependence between the coastal and marine ecosystems, especially in the sequence of coastal lagoons/dune/systems/beaches/algae/coral reefs; and similarly in the combination of mangrove swamps/coastal lagoons/algae/coral reefs, which occurs most often and most extensively in the island group.

Social, cultural and economic criteria

The Archipelago is one of the country's three most productive fishery zones. If productivity is to be maintained, a priority requirement is the conservation of natural habitats and ecosystems. The area is also of great significance for its fish farming, producing large quantities of fish and shellfish to supply both domestic and international markets and the tourist industry.

Additionally, the tourist potential of the hundreds of kilometres of beaches of the highest quality, both aesthetically and environmentally, constitute a feature of significant importance. An extensive development programme for tourism is being implemented on a short-term, medium-term and long-term basis, promoting not only the "sea, sun and sand" type of tourism but also "ecological" tourism, which explores the wide range of existing natural resources.

Scientific and educational criteria

A Coastal Ecosystems Research Centre based in Cayo Coco, collects and processes data on the area and develops new lines of research and monitoring, providing basic information for the wide range of environmental studies needed to support the longer term development of the territory.

The Centre is also involved in developing studies related to the monitoring of the effects of global climate changes, epidemics and mortality in marine organisms, bird and turtle migration; and genetic interchange between marine organism. It is also responsible for environmental monitoring, particularly, in regard to the impact of tourism.

The Centre's activities make an important contribution to education and to a better understanding of the environment. The many ecosystems, biotic communities and characteristic natural processes that exist in the area provide ideal subjects for study, not only by experts and specialists, but also by local people, and by Cuban visitors and tourists who come for purposes of recreation.

Protective Measures

The Traffic Separation Schemes in the territorial waters of the North coast, including those at the latitude of the Costa de Matanzas and in the Canal Viejo de Bahamas, within the territorial waters of the Archipelago Sabana-Camaguey, were approved at the forty-eighth session of the MSC.

MSC at its seventy-second session adopted an area to be avoided in the access routes to the ports of Matanzas and Cardenas

Reference chart: ICH 11425 (Edition of 01/08/1998)

Note: This chart is based on North American Datum (27).

Description of the area to be avoided

The area described below should be avoided by all ships over 150 gross tonnage, for reasons of conservation of unique biodiversity, nature and beautiful scenery. It lies within the coastline of the province of Matanzas and a line connecting the following geographical points:

- | | | | |
|-----|--------------|--------------|------------------------|
| (1) | 23°05'.60 N, | 081°28'.50 W | Punta Maya Lighthouse |
| (2) | 23°10'.60 N, | 081°28'.50 W | |
| (3) | 23°19'.50 N, | 081°11'.50 W | |
| (4) | 23°14'.60 N, | 081°07'.20 W | Cayo Piedras del Norte |
| (5) | 23°11'.50 N, | 081°07'.20 W | Punta Las Morlas |

Regulations relating to discharges in inland and territorial waters under the jurisdiction of the Sabana-Camaguey Archipelago.

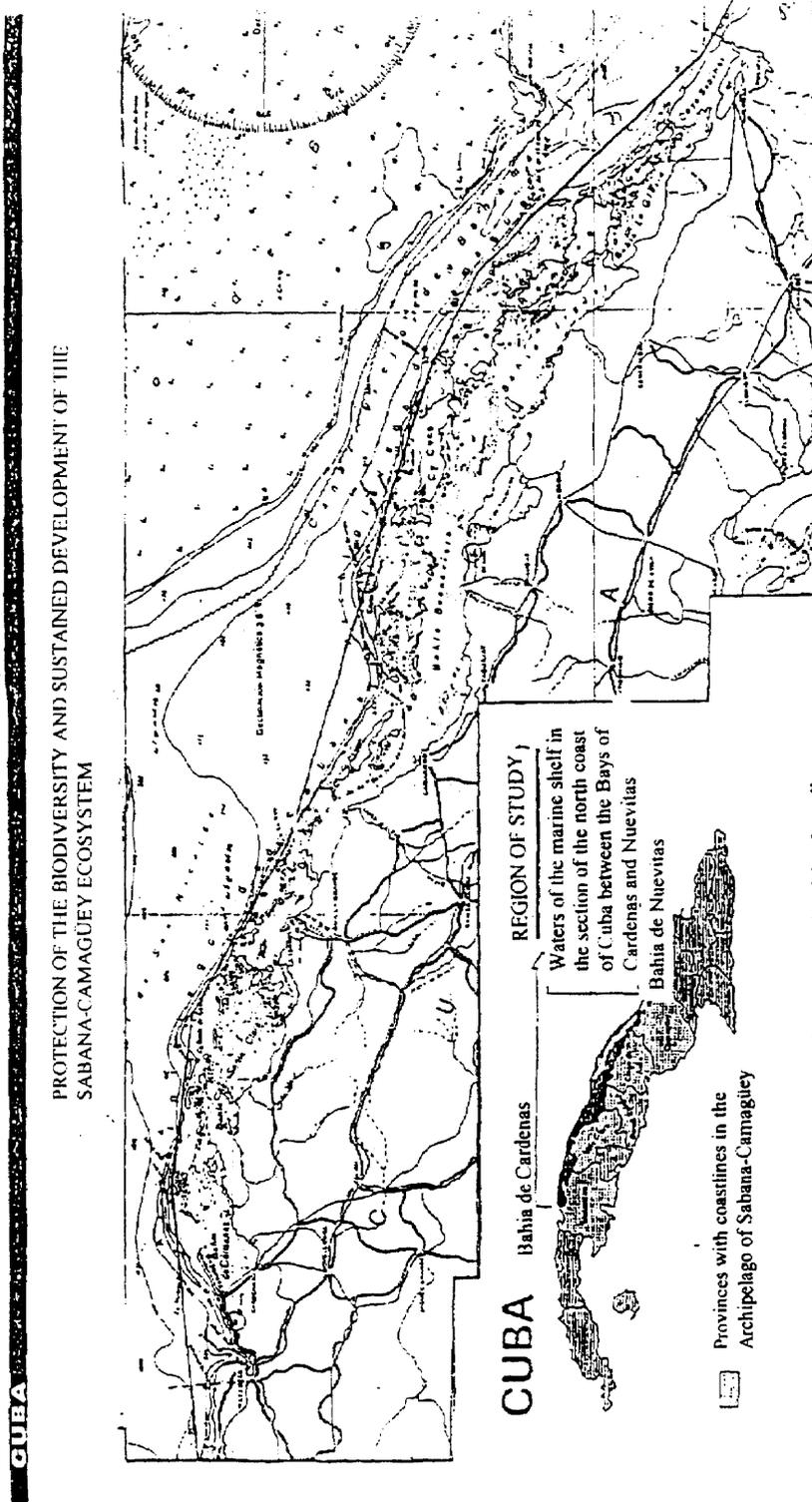
Prohibitions:

Any discharge into the sea, of oil, oily mixtures, noxious liquid substances, garbage or harmful substances from vessels of any type or size.

Any discharge of oil or oily mixtures from cargo tanks, including cargo pumps, from petrol tankers and from engine-room bilge areas, mixed with cargo waste.

Dumping at sea of the following types of garbage from ships of any type of size: 1) Plastics, synthetic fishing lines and nets, plastic garbage bags; 2) loose stowage materials, packing materials and coverings; 3) paper, rags, glass, metal, bottles, ceramics or similar materials.

Ships should avoid discharging ballast water or discharging and reloading while transiting waters under the jurisdiction of the Sabana-Camaguey Archipelago (regulation A.774(18): Guidelines for preventing the introduction of unwanted aquatic organisms and pathogens from ships' ballast water and sediment discharges).



Illustrative chart of the PSSA "Sabana-Camaguey Archipelago"
 Instituto Cubano de Hidrografía