



Mediterranean
Action Plan
Barcelona
Convention



INTERNATIONAL
MARITIME
ORGANIZATION

Guidance Document for the identification and designation of Particularly Sensitive Sea Areas in relation to Specially Protected Areas of Mediterranean Importance



Disclaimer

The designations employed and the presentation of the material in this document do not imply the expression of any opinion whatsoever on the part of Secretariat of the United Nations (UN), the Mediterranean Action Plan of the United Nations Environment Programme (UNEP/ MAP), the Specially Protected Areas Regional Activity Centre (SPA/RAC), the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC) or the International Maritime Organization (IMO) concerning the legal status of any State, Territory, city or area, or of its authorities, or concerning the delimitation of their frontiers or boundaries.

Copyright

All property rights of texts and content of different types of this publication belong to SPA/RAC and REMPEC. Reproduction of these texts and contents, in whole or in part, and in any form, is prohibited without prior written permission from SPA/RAC and REMPEC, except for educational and other non-commercial purposes, provided that the source is fully acknowledged.

© 2021

United Nations Environment Programme
Mediterranean Action Plan (UNEP/MAP)
Specially Protected Areas Regional Activity Centre (SPA/RAC)
Boulevard du Leader Yasser Arafat
B.P. 337 - 1080 Tunis Cedex - TUNISIA
car-asp@spa-rac.org

For bibliographic purposes this document may be cited as

UNEP/MAP-REMPEC-SPA/RAC, 2021. Guidance document for the identification and designation of Particularly Sensitive Sea Areas in relation to Specially Protected Areas of Mediterranean Importance. By E. Kleverlaan. Ed Franck Lauwers, REMPEC & D. Cebrian, SPA/RAC. Ed. SPA/ RAC, Tunis: 48 pp + Annexes.

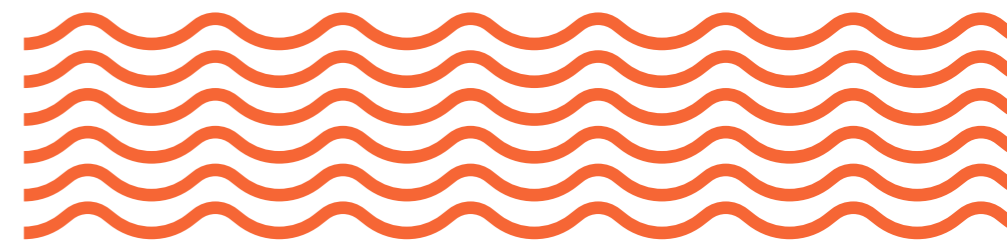
Cover photo

©SPA/RAC, Oscar Ocaña

This activity was financed by the funds available under the Memorandum of Understanding between the UNEP and the Italian Ministry for Environment, Land and Sea Protection (IMELS), and was implemented by REMPEC, in cooperation with SPA/RAC.

For more information
www-spa-rac.org
www.rempec.org

Guidance Document for the identification and designation of Particularly Sensitive Sea Areas in relation to Specially Protected Areas of Mediterranean Importance



FOREWORD	
1. INTRODUCTION	11
2. INTERNATIONAL MARITIME ORGANIZATION	15
3. THE PSSA CONCEPT	19
4. THE PSSA PROCESS	23
Important initial considerations	25
National work plan and gathering information	26
Sub-regional or joint approach	27
Structure of proposal	27
Summary of objectives of the proposed PSSA	27
Part 1. Description, significance of the area, and vulnerability	27
Description of the Area	27
Significance of the Area: Ecological, Socio-Economic, or Scientific Criteria	28
Ecological criteria	28
Social, cultural, and economic criteria	29
Scientific and educational criteria	29
Vulnerability to impacts from international shipping	30
Vessel traffic characteristics	30
Natural factors	30
Part 2. Appropriate Associated Protective Measures	31
Types of Measures	32
Legal Basis	32
Categories of Ships	33
Impact on Navigation	33







Miscellaneous Issues	33
5. PSSA PROPOSAL PATH THROUGH IMO	35
Consultation	38
6. PSSA IMPLEMENTATION AT THE DOMESTIC LEVEL	39
Compliance and enforcement	41
PSSA review	42
7. USING PSSAS TO PROTECT THE MEDITERRANEAN SEA OR SPAMIS	43
Using SPAMIs	45
ANNEX 1. National work plan and regional work plan for identification and designation of a PSSA	49
ANNEX 2. Brief summary of the Barcelona Convention and its relevant Protocols	55
Barcelona Convention – Mediterranean Action Plan	55
Protocol Concerning Cooperation in Preventing Pollution from Ships and, in Cases of Emergency, Combating Pollution of the Mediterranean Sea	55
The Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea	55
Protocol Concerning Specially Protected Areas and Biological Diversity in the Mediterranean	56
The Regional Activity Centre for Specially Protected Areas	56

ANNEX 3. Measures available under IMO for use in PSSAs	59
ANNEX 4. References	73



FOREWORD

With a view to assisting Contracting Parties to the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean ("the Barcelona Convention") to ascertain if there are maritime areas within their jurisdiction that need the protection afforded by their designation as Particularly Sensitive Sea Areas (PSSAs), and to meeting Specific Objective 12 of the Regional Strategy for Prevention of and Response to Marine Pollution from Ships (2016-2021), the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC) and the Specially Protected Areas Regional Activity Centre (SPA/ RAC) developed in cooperation the draft PSSA Guidance Document, which among other things:

-  Presents the Ecological, Socio-Economic, or Scientific Criteria of a proposed PSSA and the Appropriate Associated Protective Measures;
-  Demonstrates the PSSA proposal path through the International Maritime Organization (IMO);
-  Explains the PSSA implementation at the domestical level; and
-  Proposes the ways of using PSSAs to protect the Mediterranean Sea or Specially Protected Areas of Mediterranean Importance (SPAMIs).

The draft PSSA Guidance Document was disseminated among participants of the Adriatic Region Workshop on PSSAs and the Mediterranean Seminar on PSSAs (Tirana, Albania, 9-12 December 2019), organised by SPA/RAC in collaboration with REMPEC, with the purpose of providing information regarding the regulatory elements of PSSAs and the potential policy tools that can be leveraged to contribute to the protection of sea areas subject to the environmental impact of marine traffic.

It was further presented to the 2021 respective REMPEC Focal Points and SPA/BD Focal Points meetings for comments and feedback, to render the herein presented definitive *"Guidance Document for the identification and designation of Particularly Sensitive Sea Areas in relation to Specially Protected Areas of Mediterranean Importance"*



1



1

INTRODUCTION

- 1.1.** The present document entitled *“Guidance Document for the identification and designation of Particularly Sensitive Sea Areas in relation to Specially Protected Areas of Mediterranean Importance”* was developed to assist Contracting Parties to the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (“the Barcelona Convention”) to ascertain whether there are maritime areas within their jurisdiction which need the protection afforded by their designation as Particularly Sensitive Sea Areas (PSSAs) or not. The present document takes into account the formal material which is available from the International Maritime Organization (IMO) (IMO, 2017a) as well as less formal or practical advice which will be helpful to progress a submission to IMO for designation of a PSSA. It also includes national and regional work plans which Contracting Parties to the Barcelona Convention could follow to progress their submission. The present document finally includes a list of information sources that need to be reviewed for inclusion in any submission to IMO.
- 1.2.** This first section introduces IMO and various key elements associated with PSSAs concept and process for submitting an application to IMO for PSSA designation. **Annex 1** to the present document sets out the template for a national work plan that can be implemented by a Contracting Party to the Barcelona Convention that wishes to pursue the designation process. **Annex 1** to the present document also set out a regional work plan that assists those that wish to jointly propose a PSSA.
- 1.3.** The Barcelona Convention and its relevant Protocols in relation to Specially Protected Areas of Mediterranean Importance¹ (SPAMIs) are also briefly summarised for the benefit of understanding the significance of SPAMIs. This is found at **Annex 2** to the present document.
- 1.4.** **Annex 3** to the present document sets out a detailed description of associated protective measures that could be used in a PSSA to target the threats from international shipping.
- 1.5.** The document concludes with a list of references (at **Annex 4** to the present document) that can be used in the PSSA process.

¹ Specially Protected Areas of Mediterranean Importance (SPAMI) are sites “of importance for conserving the components of biological diversity in the Mediterranean; contain ecosystems specific to the Mediterranean area or the habitats of endangered species; are of special interest at the scientific, aesthetic, cultural or educational levels”.

2



2

INTERNATIONAL MARITIME ORGANIZATION

- 2.1.** As a specialised agency of the United Nations, the International Maritime Organization (IMO) is the global standard-setting authority for the safety, security, and environmental performance of international shipping. Its main role is to create a regulatory framework for the shipping industry that is fair and effective, universally adopted and universally implemented. It also is involved in legal matters, including liability and compensation issues and the facilitation of international maritime traffic².
- 2.2.** The IMO has adopted a wide range of measures and regulations to prevent and control pollution caused by ships and to mitigate the effects of any damage that may occur as a result of maritime operations and accidents. These measures have been shown to be successful in reducing ship-sourced pollution and illustrate the commitment of the Organization and the shipping industry towards protecting the environment. Of the 51 treaty instruments for the regulation of international shipping IMO has adopted so far, 21 are directly environment-related. It is important to remember that IMO Member Governments are responsible for implementing and enforcing the regulatory framework adopted by IMO.
- 2.3.** It is the IMO and its Committees and Sub-Committees which are responsible for all matters relating to the approval or adoption of the measures available to the IMO related to the protection of PSSAs.
- 2.4.** The Committee which is directly responsible for assessing and approving PSSA proposals is the Marine Environmental Protection Committee (MEPC) which is IMO's senior technical body on marine pollution related matters. Note that the assessment and determination of whether a PSSA should be designated are ultimately controlled by whether the proposal meets the provisions of the Revised guidelines for the identification and designation of Particularly Sensitive Sea Areas encapsulated in IMO Assembly resolution A.982(24), as amended by resolution MEPC.267(68) (the PSSA Guidelines). The PSSA Guidelines were adopted on 1 December 2005 and amended by MEPC on 15 May 2015. MEPC is aided in its work by a number of IMO's Sub-Committees, in particular the Sub-Committee on Pollution Prevention and Response (PPR).
- 2.5.** A PSSA can be protected by ships routing measures – such as an area to be avoided: an area within defined limits in which either navigation is particularly hazardous or it is exceptionally important to avoid casualties and which should be avoided by all ships, or by certain classes of ships. The IMO Publication Ships' Routeing includes General provisions on ships' routeing, (IMO, 2019) first adopted by IMO in 1973, and subsequently amended over the years, which are aimed at standardising the design, development, charted presentation and use of routeing measures adopted by IMO.
- 2.6.** It is important to note that as outlined in resolution A.982(24), IMO is the only international body responsible for assessing proposals for and designating areas as PSSAs and adopting measures applicable to international shipping. An application to IMO for designation of a PSSA and the adoption of associated protective measures (APMs), 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.

² For more information, refer to the International Maritime Organization's homepage: <http://www.imo.org/en/About/Pages/Default.aspx>.

3



© SPA/FAC, Arafat Ben Meirzou

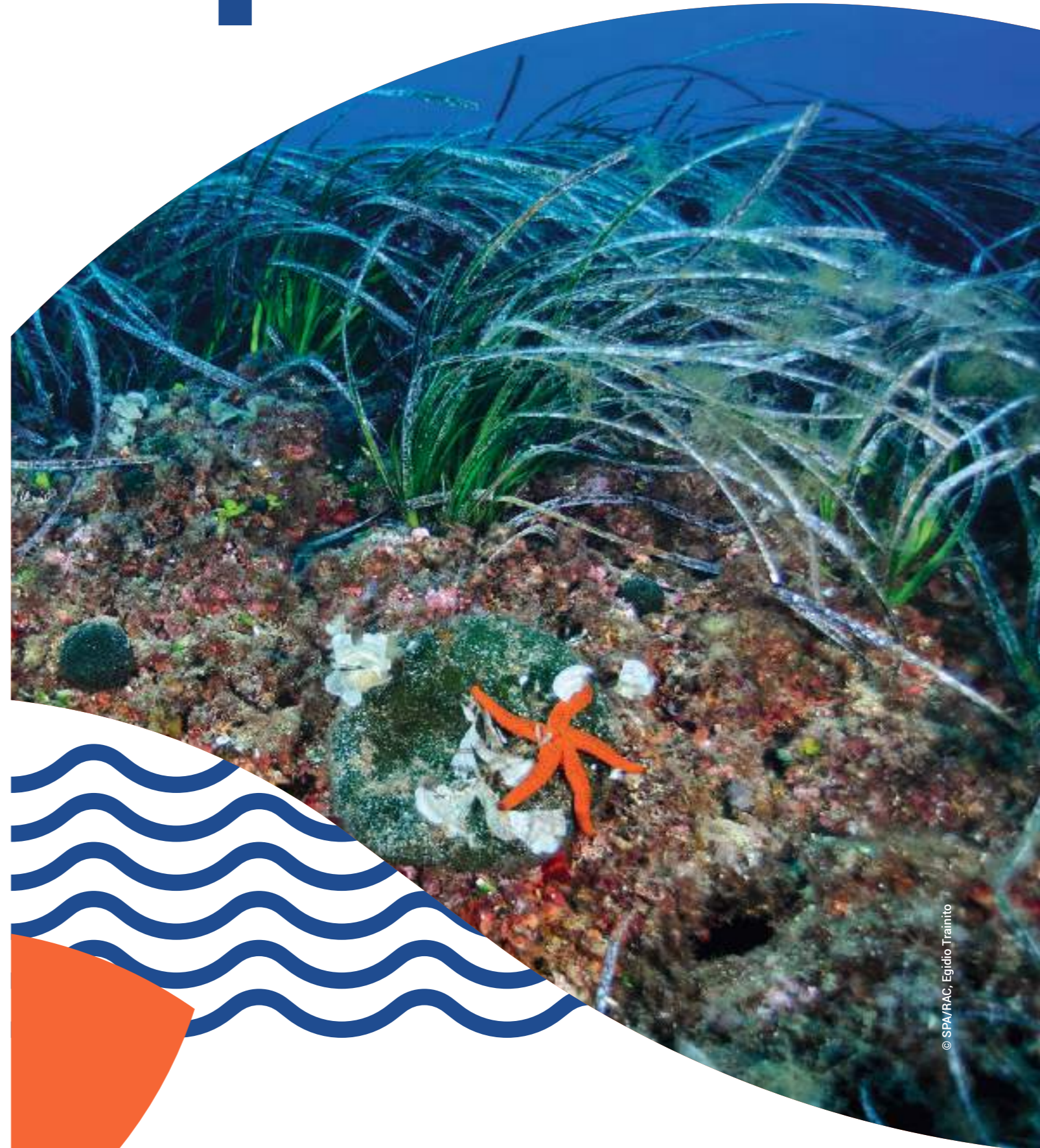
3

THE PSSA CONCEPT

- 3.1.** The formal definition of a PSSA is an area that needs special protection through action by the IMO because of its significance for recognised ecological, socio-economic, or scientific attributes where such attributes may be vulnerable to damage by international shipping activities. At the time of designation of a PSSA, an APM, which meets the requirements of the appropriate legal instrument establishing such measure, must have been approved or adopted by IMO to prevent, reduce, or eliminate the threat or identified vulnerability.
- 3.2.** The identification and designation of an area as a PSSA is in fact a comprehensive management tool at the international level that provides a mechanism for reviewing an area that is vulnerable to damage by international shipping and determining the most appropriate way to address that vulnerability. In general, to be identified as a PSSA, three elements must be present:
1. the area must have certain attributes (ecological, socio-economic, or scientific);
 2. it must be vulnerable to damage by international shipping activities; and
 3. there must be a measure with an identified legal basis that can be adopted by IMO to prevent, reduce, or eliminate risks from these activities.
- 3.3.** The risk factors which should be considered to determine risks associated with international shipping activities are divided into two categories:
1. vessel traffic characteristics; and
 2. natural factors.
- 3.4.** If approved by IMO, the end result will be an area designated as a "Particularly Sensitive Sea Area" and one or more IMO-adopted measures for ships to follow³. It is worthy to note that such sea areas may include the territorial sea of States, and sea areas beyond national jurisdiction. The identification of PSSAs within internal waters and the territorial sea can be done by states nationally and regionally as well as cooperatively among member nations with common interest in an area which spans formal borders.
- 3.5.** Proposals must be submitted in accordance with IMO rules and procedures for the submission of documents. Member Governments may check with the IMO Secretariat for the precise submission deadline as well as other administrative rules.
- 3.6.** Note also that while PSSA designation might serve as a useful tool in conjunction with a MPA or SPAMI, it is neither appropriate nor necessary that it be applied to all such areas. Many MPAs or SPAMIs will have minimal pressures from international maritime activities. The value of PSSA designation will be undermined if the process is used everywhere – a PSSA should be seen as a unique designation and a management tool to be used in certain circumstances.
- 3.7.** If there are concerns relating purely to biodiversity conservation from human pressures such as land-based sources of pollution, sustainable fisheries, sustainable tourism, or integrated coastal management, a PSSA is unlikely to be the most appropriate protection mechanism. In these circumstances, MPAs are widely seen as a more appropriate protection mechanism to reduce such pressures. Similarly, if the threat is caused primarily by vessels on domestic voyages, it may be more appropriate to address it using domestic law.

3. Information on each of the PSSAs that has been designated by IMO is available at: <https://www.imo.org/en/OurWork/Environment/Pages/PSSAs.aspx>.

4



4

THE PSSA PROCESS

4.1. The PSSA Guidelines provide the guidance to IMO Member Governments in the formulation and submission of applications for designation of PSSAs, they generally aim to:

1. ensure that, in the process, all interests – those of the coastal State, flag State, and the environmental 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 minimise the risk; and
2. provide for the assessment of such applications by IMO.

4.2. They are rather formal and further guidance was developed by MEPC to assist Member Governments in the practical preparation, drafting and submission of an application⁴. The following is an annotated version of this guidance to assist potential applicants in preparing and submitting a PSSA proposal and after approval and adoption, what steps need to be taken to ensure adequate implementation and enforcement is in place.

Important initial considerations

4.3. As a first step in the preparation of an application to obtain PSSA status, a determination must be made that there is a threat to the area in question from international shipping activities. If the threat is primarily being caused by shipping registered domestically, it may be more appropriate to address such a threat as a matter of domestic law. After the threat is identified, a decision can be made as to the most appropriate means to address it.

4.4. Threats to the marine environment from international shipping include:

1. accidental or international pollution (e.g., groundings, spills, collisions);
2. operational discharges (i.e., oil, noxious liquid substances, sewage, garbage, air emissions, ballast water with unwanted aquatic nuisance species and pathogens); and
3. physical damage to marine habitats or organisms (i.e., anchor damage, ship strikes of marine animals, smothering of species/habitats, harmful effects from anti-fouling systems).

4.5. Damage may also be caused from the intentional violation of existing rules and regulations which exist to protect against the abovementioned threats. Such violations might include the dumping of noxious substances, ignoring speed restrictions, etc.

4.6. Questions that should be answered at this stage include:

1. What is the maritime safety concern? (e.g., collisions with what, groundings on what?). Can it lead to damage of the attributes?
2. Why is there concern about discharges? (e.g., accidents, mystery spills, illegal discharges).
3. What types of discharges? (e.g., oil, aquatic nuisance species, sewage and even noise).
4. Protection of resources (fishing, birds, habitats) from what?

4. Refer to MEPC/Circ.510 "Guidance document for submission of proposals to IMO".

4.7. Then identify international shipping behaviour that needs to be addressed. If paramount interest is *maritime safety*, investigate navigational aspects:

1. Numbers of ships;
2. Normal routes, alternatives;
3. Crossings;
4. Underkeel clearance; and
5. Aids to navigation.

4.8. If paramount interest is: *discharges/losses*, investigate:

1. Hazardous cargoes;
2. Accidents;
3. Operational activities (cargo hull washing); and
4. Illegal discharges (night).

4.9. Identification of any PSSA and the adoption of APMs requires the consideration of three integral components:

1. the particular area must have certain attributes (ecological, socio-economic, or scientific) that can be identified;
2. the vulnerability of such attributes to damage by international maritime activities; and
3. the availability of APMs within the competence of IMO Committees and Sub-Committees to address risks from these shipping activities.

National work plan and gathering information

4.10. To successfully develop a PSSA proposal, it may be best to develop a national work plan to execute the development and implementation of the PSSA. Once political will is established and agreement is reached to follow this path, it is advisable to assemble a small team of national experts in the country concerned that can assist in gathering information. The team should include members who can describe and document the characteristics of the area as well as the damage that has been or could be caused to the area. It should also include members who are familiar with the vessel operations in the area and the IMO measures that can be proposed to address the damage. The proposing Government's representative(s) to appropriate IMO Committees should also participate to facilitate submission and presentation of the proposal.

4.11. Some members will be necessary to ensure through appropriate national laws and regulations and institutional arrangements proper implementation, compliance monitoring and enforcement of domestic legislation of any new IMO measures, once approved, applicable to traffic traversing or navigating near the PSSA. Members should also be tasked in consulting with neighbouring countries when appropriate. Prior to the submission of the proposals to MEPC, carrying out any preliminary consultation to ensure an efficient path through the plenary session of the Committee.

4.12. An example of a draft national work plan is set out in **Annex 1** to the present document. It provides an outline of the key steps, timing, and responsibilities each member(s) of the team. It also sets out who should lead and/or coordinate this process. Usually this

is the maritime authority or maritime coordinating ministry of the country concerned.

4.13. Members of the team could include: Government Department Officials (Transport, Maritime, Foreign Affairs, Resources (energy), Natural resources (fishing), Environment, Navy/Coast Guard, Port Authorities, Local Government) and representatives from industry or other stakeholders (representing domestic and international shipping, fishing, and aquaculture, scientific and research, universities, local community groups, NGOs, consultants). It is important to maintain good communications between the members and good data flow to ensure transparency and wide buy in for the process.

Sub-regional or joint approach

4.14. As was mentioned above 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 Governments. To assist this process a draft regional work plan, similar to the national work plan has been developed to assist those Member Governments contemplating joint submissions. It is set out at Annex 1 to the present document, and includes key steps, responsibilities, and timing of tasks.

Structure of proposal

4.15. Paragraphs 7.4 to 7.10 of the PSSA Guidelines set out the structure of the proposal, as follows:

1. Summary of objectives of the proposed PSSA;
2. Part 1 – Description, significance of the area, and vulnerability;
3. Part 2 – Appropriate APMs; and
4. Miscellaneous issues.

Summary of objectives of the proposed PSSA

4.16. The summary must include a concise introductory description of the location, the need for protection, the proposed APM and the reasons why that particular APM is preferred. This section must be brief and clear. It is usually done at the end of the application process, before submission, when all factors have been reviewed and clarified.

Part 1. Description, significance of the area, and vulnerability

4.17. This section forms the heart of the application and must be supported by references, as appropriate. These should be attached to the proposal, in an annex to the submission.

Description of the Area

4.18. The application must contain the location of the proposed area, including the geographic co-ordinates and a chart on which the area is marked. A buffer zone, which is an area contiguous to the site-specific or core feature of the proposed PSSA, may be included within the boundaries of the PSSA; however, the need for such a zone should be justified as to how it contributes to the protection of the core area.

Significance of the Area: Ecological, Socio-Economic, or Scientific Criteria

- 4.19.** An area being proposed for PSSA identification must satisfy **one or more** of the economic, socio-economic, or scientific criteria and information and supporting documentation should be provided to support that **at least one criterion exists throughout the proposed area, although the same criterion need not be present throughout the entire area.**
- 4.20.** Proposing Member Governments should review the section of the PSSA Guidelines for a complete description of each criterion. For completeness they are set out below with some explanation.

Ecological criteria

- 4.21.** *Uniqueness or rarity* – 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, breeding, or spawning areas may also be rare or unique.
- 4.22.** *Critical habitat* – A sea area that may be essential for the survival, function, or recovery of fish stocks or rare or endangered marine species, or for the support of large marine ecosystems. In other words, if fauna endemic to an area will not or cannot use another area for activities such as feeding, breeding, or rearing of young, the area becomes critical habitat; its integrity can govern the survival of species. On a larger scale, ‘critical habitat’ can also be an area of critical importance for the support of large marine ecosystems.
- 4.23.** *Dependency* – An area where ecological processes are highly dependent on biotically structured systems (e.g. coral reefs, kelp forests, mangrove forests, seagrass beds). Such ecosystems often have high diversity, which is dependent on the structuring organisms. Dependency also embraces the migratory routes of fish, reptiles, birds, mammals, and invertebrates. Often, each major biotic component is equally critical to the proper functioning of the system as a whole. If one element is removed other elements may not thrive.
- 4.24.** *Representativeness* – An area that is an outstanding and illustrative example of specific biodiversity, ecosystems, ecological or physiographic processes, or community or habitat types or other natural characteristics.
- 4.25.** *Diversity* – An area that may have an exceptional variety of species or genetic diversity or includes highly varied ecosystems, habitats, and communities. It should be noted that 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.
- 4.26.** *Productivity* – An area that has a particularly high rate of natural biological production. Such productivity is the net result of biological and physical processes which result in an increase in biomass in areas such as oceanic fronts, upwelling areas, and some gyres.

- 4.27.** *Spawning or breeding grounds* – An area that 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 is recognised as migratory routes for fish, reptiles, birds, mammals, or invertebrates.
- 4.28.** *Naturalness* – An area that has experienced a relative lack of human-induced disturbance or degradation.
- 4.29.** *Integrity* – An area that is a biologically functional unit, an effective, self-sustaining ecological entity.
- 4.30.** *Fragility* – An area that is highly susceptible to degradation by natural events or by 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 (e.g., water temperature, salinity, turbidity, or depth). Such communities may suffer natural stresses such as storms or other natural conditions (e.g., circulation patterns) that concentrate harmful substances in water or sediments, low flushing rates, and/or oxygen depletion. Additional stress may be caused by human influences such as pollution and changes in salinity. Thus, an area already subject to stress from natural and/or human factors may be in need of special protection from further stress, including that arising from international shipping activities.
- 4.31.** *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 biological, chemical, physical, or geological features.

Social, cultural, and economic criteria

- 4.32.** *Social or economic dependency* – An area where the environmental quality and the use of living marine resources are of particular social or economic importance, including fishing, recreation, tourism, and the livelihoods of people who depend on access to the area.
- 4.33.** *Human dependency* – An area that is of particular importance for the support of traditional subsistence or food production activities or for the protection of the cultural resources of the local human populations.
- 4.34.** *Cultural heritage* – An area that is of particular importance because of the presence of significant historical and archaeological sites.

Scientific and educational criteria

- 4.35.** *Research* – An area that has high scientific interest.
- 4.36.** *Baseline for monitoring studies* – An area that provides suitable baseline conditions with regard to biota or environmental characteristics, because it has not had substantial perturbations or has been in such a state for a long period of time such that it is considered to be in a natural or near-natural condition.
- 4.37.** *Education* – An area that offers an exceptional opportunity to demonstrate particular natural phenomena.

4.38. In some cases a PSSA may be identified within a Special Area⁵ 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.

Vulnerability to impacts from international shipping

4.39. The purpose of this section is to demonstrate that the recognised attribute(s) of the area, as identified above, are at risk from international shipping activities. The following factors are considered: vessel traffic characteristics; natural factors; and other relevant information, such as accidents, pollution status, etc. The information and assessments contained in those sections prove that the attributes of the proposed PSSA are vulnerable to damage by international shipping activities. It is important to include any trends in development of related international shipping activities as this will lead to an increased density of traffic. Issues to consider for example, are: introduction of new transportation routes for oil transport; an increase in the volume of transport of oil and other harmful substances, including liquefied natural gas (LNG) and other; and a change in pattern of international oil shipping such as introducing an additional export route from a deep-sea port in or near the area.

Vessel traffic characteristics

4.40. *Operational factors* – Types of maritime activities (e.g. small fishing boats, small pleasure craft, oil, and gas rigs) in the proposed area that by their presence may reduce the safety of navigation.

4.41. *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).

4.42. *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.

4.43. *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

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

4.45. *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.

4.46. *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.

5. A Special (sea) Area is defined under MARPOL 73/78 in Annexes I, II, IV and V 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, sewage, or garbage, as applicable, is required".

4.47. In proposing an area as a PSSA and in considering the APMs to prevent, reduce, or eliminate the identified vulnerability, other information that might be helpful includes the following:

1. any evidence that international shipping activities are causing or may cause damage to the attributes of the proposed area, including the significance or risk of the potential damage, the degree of harm that may be expected to cause damage, and whether such damage is reasonably foreseeable, as well as whether damage is of a recurring or cumulative nature;
2. any history of groundings, collisions, or spills in the area and any consequences of such incidents. This is an important aspect as it quickly demonstrates the possibility to improve this situation via new IMO measures related to safety. Sources of information include REMPEC's MEDGIS-MAR, Lloyds List Intelligence, Allianz Global Corporate & Specialty SE Safety and Shipping Review, Study of Maritime Traffic Flows in the Mediterranean Sea - Final Report - Unrestricted Version (July 2008), Statistical analysis - Alerts and accidents database (2011);
3. any adverse impacts to the environment outside the proposed PSSA expected to be caused by changes to international shipping activities as a result of PSSA designation. Once again, this aspect is important and should be addressed in the submission. Modifying established shipping usage and routes may have negative consequences for the environment;
4. stresses from other environmental sources; and
5. any measures already in effect and their actual or anticipated beneficial impact.

Part 2. Appropriate Associated Protective Measures

4.48. The application should propose the APMs available through IMO and show how they provide the needed protection from the threats of damage posed by the international shipping activities occurring in and around the area. A PSSA can be established for an area where IMO measures already exist to protect the area, and no additional measures need to be adopted. The advantage of this is that it increases international awareness regarding the sensitivity of the area, its vulnerability to damage from shipping activities, and improves compliance of the measures taken to protect the area. Alternatively, a PSSA could be established for an area where IMO measures already exist to protect the area, however, that additional protection is needed. They are limited to actions that are to be, or have been, approved or adopted by IMO and include the following options:

1. designation of an area as a Special Area under MARPOL.

In MARPOL Annex I (Prevention of pollution by oil), Annex II (Control of pollution by noxious liquid substances), Annex IV (Prevention of pollution by sewage from ships) and Annex V (Prevention of pollution by garbage from ships), MARPOL defines certain sea areas as "special areas" in which, for technical reasons relating to their oceanographical and ecological condition and to their sea traffic, the adoption of special mandatory methods for the prevention of sea pollution is required. Under the Convention, these special areas are provided with a higher level of protection than other areas of the sea. MARPOL 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 and nitrogen oxides (NOX) Emission Control Areas for Tier III NOX emission standards. Special areas are generally very large areas which encompass the EEZs of one or more States and require coastal States to have in place adequate reception facilities for receiving the wastes in question;

2. adoption of ships' routing 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' Routing 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' routing or reporting systems; and
3. development and adoption of other measures aimed at protecting specific sea areas against environmental damage from ships, provided that they have an identified legal basis.

4.49. 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.

4.50. If the application identifies a new APM, then the proposing Member Government must append a draft of the proposal which is intended to be submitted to the appropriate Sub-Committee or Committee to its application. If the measure is not already available under an IMO instrument, the proposal should set forth its legal basis and/or the steps that the proposing Member Government has taken or will take to have the measure approved and adopted by IMO pursuant to an identified legal basis. If a protective measure already exists to protect the area, then the application should show how the area is being protected by this measure. Additional APMs may be introduced in the future to address identified vulnerabilities and, as with APMs that are proposed at the time of the initial application for PSSA designation, such measures must comply with the Guidelines.

Types of Measures

4.51. As discussed above, the possible measures may include ships' routing or reporting measures, discharge restrictions, operational criteria, and prohibited activities, and should be specifically tailored to meet the need of the area at risk. Refer to **Annex 3** to the present document for a further discussion on measures available under IMO.

Legal Basis

4.52. Each APM must have an identified legal basis and the application should set forth the information on the consistency of the APM with the legal instrument under which the APM is proposed. (PSSA Guidelines, paragraphs 7.5.2.3 and 7.6.) The legal basis for APMs is: (i) any measure that is already available under an existing IMO instrument; or (ii) any measure that does not yet exist but could become available through the amendment of an IMO instrument or adoption of a new IMO instrument. The legal basis for any such measure would only be available after the IMO instrument was amended or adopted, as appropriate; or (iii) any measures proposed for adoption in

the territorial sea⁶ or pursuant to Article 211(6) of the United Nations Convention on the Law of the Sea where existing measures or a generally applicable measure (as set forth in (ii)) would not adequately address the particularised need of the proposed area. If the country is proceeding under a measure that is not yet available under an IMO instrument, the application should contain the steps that the Government is pursuing to have the measure approved or adopted by IMO pursuant to an identified legal basis.

Categories of Ships

4.53. The application should clearly specify the category or categories of ships to which the proposed APMs 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 – and other pertinent instruments.

Impact on Navigation

4.54. 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 implications for ship safety and the impact on ship operations.

4.55. Note that most SPAMIs are quite small in size and it is difficult to assess their vulnerability to maritime traffic based on AIS data. A more localised data set would need to be used in order to yield a more accurate estimate of risk and vulnerability. This must be combined with incident data, if available.

Miscellaneous Issues

4.56. *Area* – The application should include a nautical chartlet on which the location of the area and the existing or proposed APMs are clearly marked. The size of the area should be commensurate with that necessary to address the identified need.

4.57. *Summary of Measures* – The application should contain a summary of steps taken, if any, to protect the proposed area. This would include any domestic regulations, any previously adopted IMO measures, and measures taken to address the adverse effects from activities other than shipping. It would also be useful to include whether the area has received any international designation, such as listed on the World Heritage List, RAMSAR sites, Fisheries protection zones, or declared a Biosphere Reserve. In the Mediterranean Sea area, a description of any SPAMIs and other forms of local and regional protection regimes should be described. Additionally, information regarding Convention on Biological Diversity (CBD) Environmentally or Biologically Significant Areas (EBSAs) and restricted fisheries zones should be included.

4.58. *Enforcement* – The details of action to be taken pursuant to domestic law for the failure of a ship to comply with the requirements of the APMs should also be provided as well as a statement that such action shall be consistent with international law as reflected in the United Nations Convention on the Law of the Sea.

⁶ 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.

4.59. *Joint Proposals* – 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 Governments.

5



5

PSSA PROPOSAL
PATH THROUGH IMO

- 5.1.** The MEPC bears the primary responsibility within the IMO for considering PSSA applications. All applications must first be submitted to this Committee in accordance with its rules and regulations for submitting documents ((MSC-MEPC.1/Circ.5/Rev.1). Essentially bulky documents (more six (6) pages) require to be submitted 13 weeks before the Meeting. The maximum pages that will be translated in their entirety is 20 pages⁷.
- 5.2.** MEPC will initially review the application to determine whether it addresses the provisions of the PSSA Guidelines. MEPC usually convenes a Technical Group on PSSA to review the proposal on the basis on the PSSA Proposal Review Form (MEPC 55/23, annex 20), which must be prefilled in English by the proponents before the Meeting, for distribution to member of the Technical Group. The Group is composed of any participant accredited and attending the MEPC. It allows for an in-depth presentation and discussion of the proposal. This is the time supportive material and video, or PowerPoint presentation can be reviewed by the Group.
- 5.3.** The Technical Group's report should contain a recommendation to the Committee, based on its assessment of the proposal, regarding whether the proposed area should be designated as a PSSA "in principle", while awaiting action by the appropriate Sub-Committee or Committee on the APM. If the PSSA is based on an existing measure, the Group – again, after its assessment – may recommend to the Committee that it designate the area as a PSSA. Finally, if the Group decides to recommend against designation, it should provide the Committee with a statement of reasons for its recommendation and, if appropriate, request additional information.
- 5.4.** If the Group prepares a positive recommendation the MEPC may approve in principle the PSSA, and will refer the application, with its (draft) APMs, to the appropriate Sub-Committee or Committee (sometimes the MEPC itself) that is responsible for addressing the particular APMs proposed for the area. If it is the MEPC that can decide on the APM, the Technical Group will prepare a draft MEPC resolution for consideration and adoption by MEPC. The format of this resolution is found at annex 11 to document MEPC 54/21.
- 5.5.** If the draft proposal needs to be considered by another body, the relevant Sub-Committee may seek the advice of the MEPC on issues pertinent to the application. The MEPC will not make a final determination to designate the PSSA until after the APMs are considered by the pertinent Sub-Committee and Committee. For measures requiring approval by the Maritime Safety Committee (MSC), the Sub-Committee should forward its recommendation for approval of the APMs to the MSC. 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 will consider any such recommendations and, if the measures are to be adopted, will notify the MEPC of its decision.
- 5.6.** If an application is submitted without proposed APMs, the MEPC may approve in principle the identification of the area as a PSSA, pending submission of at least one proposed APM within two years of such approval and subsequent adoption of at least one APM. If the application is rejected, the MEPC shall notify the proposing Member

7. Documents other than information documents and reports from sub-committees, working, drafting, correspondence and other working groups and the Secretariat, and which contain more than 20 pages, in line with paragraph 6.11 of the Committees' Method of Work, will not be translated in their entirety. Such documents should include, for translation purposes, a summary not longer than four pages, with the technical content submitted as an annex in the language needed by working groups (i.e. English).

Government and provide a statement of reasons for its decision.

5.7. After approval by the appropriate Sub-Committee or Committee of the APM, the MEPC may designate the area as a PSSA.

Consultation

5.8. It is important to note that consultation with relevant bodies and groups (domestically and internationally) before and during the development of a PSSA proposal is critical to garner support and reduce or eliminate objections to a PSSA proposal. This also applies to the time the proposal is under consideration by MEPC. Lobbying various key stakeholders, such as affected States or users is most important. Also, consultations with local users of the area, such as fishers, recreational users, the environmental community, the shipping community, scientists, and other concerned stakeholders on the conditions in the area may often reveal new or different problems than those anticipated. The wide range of protective measures available can be reviewed to determine which ones are best to reduce or eliminate the vulnerability of the area.

6



6

PSSA IMPLEMENTATION
AT THE DOMESTIC LEVEL

6.1. After designation takes place, information about the PSSA and the APM(s) is broadly disseminated to mariners operating in the designated area through identification on charts through the International Hydrographic Organization (IHO). The symbology used on charts is as follows:

“The limit of a PSSA should be charted using a dashed line (in green or magenta), with a tint band of maximum of 5mm width and abbreviation ‘PSSA’ on the PSSA side of the dashed line limit, in green or magenta to match the line colour”.

6.2. They have also been brought to the attention of the shipping community through Notices to Mariners in a range of countries.

Compliance and enforcement

6.3. The PSSA Guidelines place an obligation on all IMO Member Governments to ensure that ships flying their flag comply with the APMs adopted to protect the designated PSSA. Nevertheless, in submitting proposals for APMs as part of a PSSA submission, proposing Member Governments need to give careful consideration to strategies for ensuring compliance by international shipping. While such strategies will depend largely on the applicable legal system, common concerns include jurisdiction, presentation of evidence, standards of proof of violation, whether sanctions are administrative, civil, or penal, and the rights of the accused.

6.4. IMO suggest that an effective compliance programme should incorporate all of the following elements:

- Compliance monitoring through routine inspections, surveys, and/or examinations;
- Detection and policing “patrols”;
- Reporting procedures and incentives, including incentives for self-reporting;
- Adequate investigations of violations reported or otherwise detected;
- A system of adequate sanctions in respect of violations;
- Education and public awareness programmes; and
- Co-operation and co-ordination with other States parties.

6.5. When a PSSA is formally designated by MEPC, all approved APMs should be identified on charts in accordance with the symbols and methods of the IHO⁸. 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.

8. Please refer to <https://www.iho.int> for information on symbols and methods of the IHO.

- 6.6.** Proposing Member Governments should ensure that any APM is implemented in accordance with international law as reflected in the United Nations Convention on the Law of the Sea. Member Governments should take all appropriate steps to ensure that ships flying their flag comply with the APMs adopted to protect the designated PSSA. Those Member Governments which have received information of an alleged violation of an APM by a ship flying their flag should provide the Government which has reported the offence with the details of any appropriate action taken.
- 6.7.** Note that If, in preparing its PSSA application, a Member Government requires technical assistance, that Government is encouraged to request such assistance from IMO.

PSSA review

- 6.8.** The paragraph 8.4 of the PSSA Guidelines states that IMO should provide a forum for the review and re-evaluation, requires that Member Governments with PSSAs allow for the review and re-evaluation of any APM adopted, as necessary, taking into account pertinent comments, reports, and observations of the APMs. 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 designation 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.

7



7

USING PSSAS TO PROTECT THE MEDITERRANEAN SEA OR SPAMIS

- 7.1.** According to the above PSSA guidance our first step is to identify the sea areas which are significant and highly valued and, in particular, those areas that are vulnerable to damage from international shipping. As we know there are a wide range of ecological, socio-economic, and cultural/scientific values present in the Mediterranean Sea Region. To identify those areas, we need to collate credible scientific data, often peer reviewed studies, national or international reports on the area, as well as studies identifying and establishing those areas under some form of (legal) protective status.
- 7.2.** Many sea areas have been identified through various national and international mechanisms and include specific areas requiring active management to minimise human pressures, as well as protection of species habitats or range, which are not managed directly by any particular national body. Their protection from human pressure is usually through domestic implementation of international agreements such as the Convention on the Conservation of Migratory Species of Wild Animals (CMS) and Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) or local/regional cetacean protection regimes.
- 7.3.** Area based management regimes in the Mediterranean include national marine protected areas (MPAs), marine reserves or parks, fishing restrictive zones, World Heritage Areas, RAMSAR sites (Convention on Wetlands of International Importance especially as Waterfowl Habitat) and SPAMIs. Some species-based protection regimes include have been identified through ACCOBAMS. Other tools to assist in the identification of areas requiring special management include EBSAs or Vulnerable Marine Ecosystems (VMEs), amongst others. These have been documented by the Regional Activity Centre for Specially Protected Areas (SPA/RAC) and can be obtained through their web portal or direct with the Secretariat.
- 7.4.** Given the present document focusses on SPAMIs, we will review those that have been identified and established according to internationally recognised process under the Specially Protected Areas and Biological Diversity Protocol to the Barcelona Convention (1995 SPA & Biodiversity Protocol).

Using SPAMIs

- 7.5.** There are currently thirty-nine (39) SPAMIs listed under the 1995 SPA & Biodiversity Protocol. SPAMIs and their year of inclusion is set out below (as per last update of December 2020). Their locations are set out in the map, below (Figure 1).

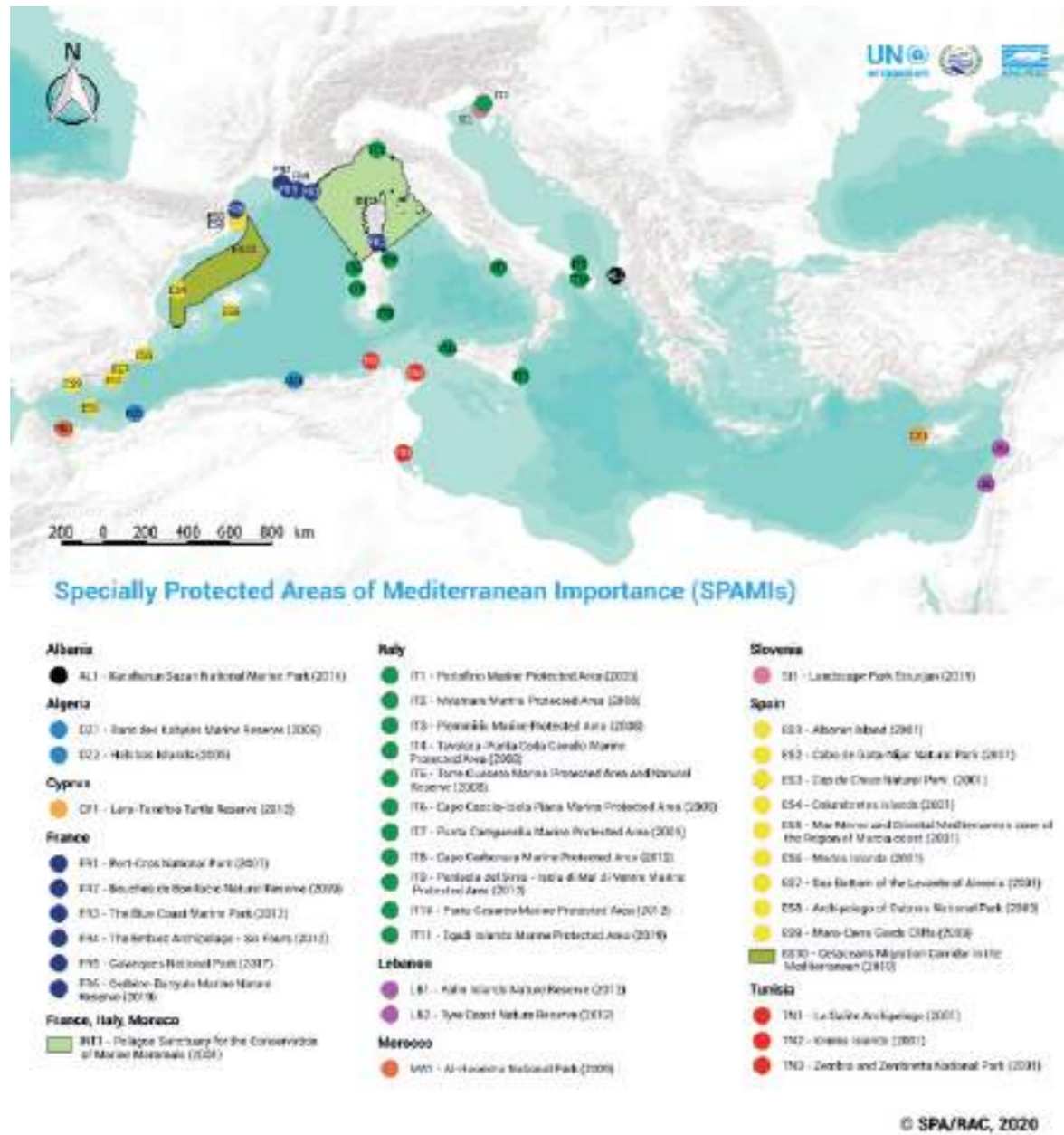


Figure 1
Map of SPAMIs

7.6. In an effort to identify those SPAMIs that require additional protection from international shipping a review was conducted of the literature and databases to identify a priority list of SPAMIs for the present document. The primary source material for the review was the proposals submitted by the Contracting Parties to the Barcelona Convention to obtain approval and the Mediterranean Integrated Geographical Information System on Marine Pollution Risk Assessment and Response (MEDGIS-MAR), which provides an overview of the information that could be used to identify values in or near the SPAMI, as well as traffic information that gives an indication of the risk to those values. Obviously, a rigorous review of this traffic data using the International Association of Lighthouse Authorities (IALA) risk analysis tools would be advisable. These are:

1. PAWSA – “Port and Waterway Safety Assessment Tool”
Qualitative Model – i.e. Relies on the opinion of specialists in particular fields to estimate risks in qualitative terms such as High, Medium, Low; or
2. IWRAP Mk 2 – “IALA Waterway Risk Assessment Program”
Quantitative Model – i.e. Assigns fixed numerical values to both the probability and impact.

ANNEX 1. National work plan and regional work plan for identification and designation of a PSSA

Prevention of pollution from ships through the adoption of Particularly Sensitive Sea Areas(PSSA) within (Country...)

Draft National Work Plan

Objectives

To prepare a proposal to be submitted to IMO for the designation of[sea area] as a Particularly Sensitive Sea Area (PSSA) together with the adoption of associated protective measures applicable to international shipping.

Scope

To meet the requirements of the IMO Guidelines for the Identification and Designation of Particularly Sensitive Sea Areas (Resolution A.982(24) ("PSSA Guidelines"), as amended.

Purpose

The purpose of the National Work Plan is to initiate, facilitate and coordinate a process which shall lead [country] to undertake actions aimed at:

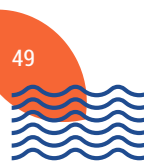
- a. developing a proposal for the designation of the [Sea area] as a PSSA. This implies: collecting all the required elements for a PSSA application as set forth in the PSSA Guidelines, noting in particular the need for co-operation and consultation across all relevant Government agencies, NGOs, university/ research facilities and industry;
- b. drafting the application according to the format set forth in the PSSA Guidelines and the related MEPC guidance documents including the ancillary information (maps) needed for the MEPC PSSA technical group assessment. The application shall follow the Committee's guidelines for MEPC submissions, in particular, regarding the deadlines for submissions and format;
- c. consulting with neighbouring countries when appropriate. Prior to the submission of the proposals to MEPC, carrying out a preliminary consultation to ensure an efficient path through the plenary session of the Committee;
- d. submitting the proposal to MEPC [2020 or 2021]; and
- e. ensuring through appropriate national laws and regulations and institutional arrangements proper implementation, compliance monitoring and enforcement.

[Name of agency.....] is the agency with overall responsibility for the implementation of this work plan. The single contact point is [Name of Senior Official.....].

Summary

Responsibility for specific actions to develop the PSSA submission is set out in the Attachment.

The key elements of the Work Plan are as follows:



Action	Purpose	Timing
Hold Inter-Ministerial (National) meeting	Identify proposed sea and Associated Protective Measures, adopt national Work Plan, and establish national Working Group	
Prepare and submit information paper to MEPC	To alert IMO members to proposal	
Provide details of any proposed consultant/s.	To engage consultants to assist, if needed	
Prepare for side event (presentation) at MEPC	To raise awareness of proposed PSSA	
Hold National Technical/Working Group meetings	To monitor progress and co-ordinate work	
Completion of draft and review	To circulate proposal for comment/clearance	
Implementing legislation drafted	Prepare a draft of any legislation necessary to enforce Associated Protective Measures	
Application submitted to IMO	Three months before meeting	
Consideration by MEPC	Carry out communication strategy	

Attachment – Responsibility for preparing PSSA submission

Element	Agency responsible	Official contact details
Ecological Criteria (Primary criteria for submission)		
Social, cultural, and economic criteria		
Scientific and Educational criteria		
Vessel traffic characteristics (Operational factors, vessel types, traffic characteristics, harmful substances carried)		
Natural Factors (Hydrographic, Meteorological, Oceanographic)		
Miscellaneous – Nautical chartlets for submission		
Miscellaneous – Summary of existing measures		
Miscellaneous - Enforcement		
Miscellaneous – Implementation after designation		
Drafting full submission		

Prevention of pollution from ships through the adoption of Particularly Sensitive Sea Areas (PSSA) within the [region of...]

(list of countries in joint submission)

Draft Regional Work Plan

Objectives

To assist [list of countries in joint submission] to prepare individual and/or joint proposals to be submitted to IMO for the designation of Particularly Sensitive Sea Areas (PSSAs) in the region together with the adoption of associated protective measures applicable to international shipping.

Scope

Taking into account that all the countries already have had a regional awareness raising workshop, the substantial scope of this plan will be to concentrate on the work to be carried out individually or/and jointly by the countries to prepare proposals for the designation of PSSAs. The geographical scope of the project is the sensitive sea areas under threat from international shipping off the coasts of [list of countries in joint submission].

Purpose

The purpose of the plan is to initiate, facilitate and coordinate a process which shall lead the relevant Ministry(ies) and administrations of the beneficiary countries to undertake actions aimed at:

- a. developing individual and/or joint proposals for the designation of PSSAs. This implies: identifying potential PSSAs and collecting all the required elements for a PSSA application as set forth in the PSSA Guidelines, noting in particular the need for co-operation and consultation across all relevant Government agencies, NGOs, university/research facilities and industry;
- b. drafting the application according to the format set forth in the PSSA Guidelines and the related MEPC guidance documents including the ancillary information (maps) needed for the MEPC PSSA technical group assessment. The application shall follow the Committee's guidelines for MEPC submissions, in particular, regarding the deadlines for submissions and format;
- c. cooperating with neighbouring countries for developing, drafting, and submitting a joint proposal, as appropriate. Consulting with neighbouring countries when appropriate. Prior to the submission of the proposals to MEPC, carrying out a preliminary consultation to ensure an efficient path through the plenary session of the Committee;
- d. if possible, submitting to MEPC in [2020 or 2012], proposals for the designation of PSSAs in the region; and
- e. ensuring through appropriate national laws and regulations and institutional arrangements proper implementation, compliance monitoring and enforcement.

Summary

The detailed Regional Plan is set out in the attachment. The key elements of the Plan are as follows:

Action	Purpose	Timing
Regional Meeting	Review and agree project objectives and goals, potential areas to be considered, adopt regional plan, agree actions to be taken by each beneficiary country	
Study of Maritime Traffic (risk assessment)	To assist in identifying, locating, and selecting the sensitive areas that need special protection	
Inter-Ministerial (National) meetings, as appropriate, to be held in each Beneficiary Country	Agree area/s to be proposed as PSSAs, identify Associated Protective Measures, adopt national Work Program, and establish national Working Group	
National Working meetings to be held in each Country	Monitor progress and co-ordinate work	
Final Regional Meeting	Present and consider draft proposals to be submitted to IMO together with appropriate Associated Protective Measures as well as follow up activities and to agree on actions to be taken individually and jointly for their finalisation, submission, and support	
Applications submitted to IMO		
National implementing legislation ready for adoption	Prepare any legislation necessary to enforce Associated Protective Measures	

ANNEX 2. Brief summary of the Barcelona Convention and its relevant Protocols

Barcelona Convention – Mediterranean Action Plan

In 1975, the Mediterranean States and the European Community approved the Mediterranean Action Plan of the United Nations Environment Programme (UNEP/MAP) as the institutional framework for cooperation in addressing common challenges of marine environmental degradation. UNEP/MAP endorsed the preparation of a framework convention for the protection of the marine environment against pollution.

The Convention for the Protection of the Mediterranean Sea against Pollution was adopted in 1976 by the Conference of Plenipotentiaries of the Coastal States of the Mediterranean Region for the Protection of the Mediterranean Sea in Barcelona, Spain. It was amended on 10 June 1995 and renamed Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention).

The twenty-two (22) Contracting Parties to the Barcelona Convention are: Albania, Algeria, Bosnia and Herzegovina, Croatia, Cyprus, Egypt, France, Greece, Israel, Italy, Lebanon, Libya, Malta, Monaco, Montenegro, Morocco, Slovenia, Spain, Syrian Arab Republic, Tunisia, Turkey, and the European Union.

Protocol Concerning Cooperation in Preventing Pollution from Ships and, in Cases of Emergency, Combating Pollution of the Mediterranean Sea

The Protocol Concerning Cooperation in Preventing Pollution from Ships and, in Cases of Emergency, Combating Pollution of the Mediterranean Sea (2002 Prevention and Emergency Protocol) (adopted 2002, replacing the related Protocol of 1976), entered into force in 2004.

The 2002 Prevention and Emergency Protocol now covers prevention of, preparedness for, and response to marine pollution from sea-based sources. Its text was also updated with a view to harmonising it with the texts of other relevant international legal instruments developed since the adoption of the Protocol Concerning Co-operation in Combating Pollution of the Mediterranean Sea by Oil and other Harmful Substances in Cases of Emergency (1976 Emergency Protocol), and in particular with the text of the International Convention on Oil Pollution Preparedness, Response and Co-operation (OPRC 1990), taking also into account the contribution of the European Community to the implementation of international standards related to maritime safety and prevention of pollution from ships.

Sixteen of the twenty-two (22) Contracting Parties to the Barcelona Convention signed the 2002 Prevention and Emergency Protocol, and as of March 2021, seventeen (17) Contracting Parties to the Barcelona Convention have so far ratified it (Algeria, Croatia, Cyprus, European Union, France, Greece, Israel, Italy, Lebanon, Malta, Monaco, Montenegro, Morocco, Slovenia, Spain, Syrian Arab Republic, and Turkey).

The Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea

The Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC) is administered by the International Maritime Organization (IMO) in cooperation with UNEP. REMPEC's main objective is to contribute to preventing and reducing pollution from ships and combating pollution in case of emergency. REMPEC assists the Contracting Parties to the Barcelona Convention in meeting their obligations under the Barcelona Convention and the 2002 Prevention and Emergency Protocol as well as in implementing



the Regional Strategy for Prevention of and Response to Marine Pollution from Ships, whose key objectives and targets are reflected in the Mediterranean Strategy for Sustainable Development (MSSD).

The Centre also assists the Contracting Parties to the Barcelona Convention which so request in mobilising the regional and international assistance in case of an emergency under the Protocol for the Protection of the Mediterranean Sea against Pollution Resulting from Exploration and Exploitation of the Continental Shelf and the Seabed and its Subsoil (Offshore Protocol). REMPEC is based in Valetta, Malta.

The Regional Strategy (2016-2021) aims at preventing pollution from ships and maritime accidents and at enhancing the level of preparedness for response to major pollution incidents, in the Mediterranean region. It also lists the priority issues to be addressed when implementing the Protocol concerning Co-operation in Preventing Pollution from Ships and, in Cases of Emergency, Combating Pollution of the Mediterranean Sea and include, for each of these issues, precise commitments and a timetable for the implementation of the twenty-two objectives to be achieved by 2021. The Regional Strategy (2016-2021) is in line with the UNEP/MAP's Mid-Term Strategy (MTS) (2016-2021), also adopted by COP 19, which sets up a strategic framework that ensures coherence, continuity, increased efficiency, effectiveness, and relevance of the MAP/Barcelona Convention system for the protection of the Marine Environment and the Coastal Region of the Mediterranean and contribution to sustainable development of the Mediterranean Region for the period 2016-2021.

Protocol Concerning Specially Protected Areas and Biological Diversity in the Mediterranean

The Protocol Concerning Specially Protected Areas and Biological Diversity in the Mediterranean (1995 SPA & Biodiversity Protocol) (adopted in 1995, replacing the related Protocol of 1982) and Annexes (adopted in 1996, amended in 2009, 2012 and 2013). It currently has eighteen (18) Contracting Parties (Albania, Algeria, Croatia, Cyprus, Egypt, France, Italy, Lebanon, Malta, Monaco, Montenegro, Morocco, Slovenia, Spain, Syrian Arab Republic, Tunisia, Turkey, and the European Union).

The Regional Activity Centre for Specially Protected Areas

The specific objective of the Regional Activity Centre for Specially Protected Areas (SPA/RAC) is to contribute to the protection and preservation and sustainable management of marine and coastal areas of particular natural and cultural value and threatened and endangered species of flora and fauna.

SPA/RAC provides assistance to the Contracting Parties to the Barcelona Convention in meeting their obligations under the Barcelona Convention, and under the Specially Protected Areas and Biodiversity Protocol; and implementing the Strategic Action Programme for the Conservation of Biological Biodiversity in the Mediterranean Region (SAP BIO) as well as the MSSD. SPA/RAC is based in Tunis, Tunisia.

Through the 1995 SPA & Biodiversity Protocol, the Contracting Parties to the Barcelona Convention established the List of Specially Protected Areas of Mediterranean Importance (SPAMI's List) in order to promote cooperation in the management and conservation of natural areas, as well as in the protection of threatened species and their habitats. The conservation of the natural heritage is then the basic aim that must characterise the SPAMIs.

According to the provisions of the 1995 SPA & Biodiversity Protocol, SPAMIs may be established in the marine and coastal zones subject to the sovereignty or jurisdiction of the

Parties and in areas situated partly or wholly on the high sea. The SPAMI's List may include sites which:

are of importance for conserving the components of biological diversity in the Mediterranean; contain ecosystems specific to the Mediterranean area or the habitats of endangered species; and

are of special interest at the scientific, aesthetic, cultural or educational levels.

The 1995 SPA & Biodiversity Protocol provides the criteria for the choice of protected marine and coastal areas that could be included in the SPAMI's List (Annex I to the 1995 SPA & Biodiversity Protocol) as well as the procedure and the stages to be followed with the view of including an area in the List. According to the provisions of the 1995 SPA & Biodiversity Protocol, all the Parties to the Protocol are committed to respecting the protection and conservation measures defined in the proposal for inclusion.

ANNEX 3. Measures available under IMO for use in PSSAs

1. The application for a PSSA must include the associated protective measures which are available through IMO and should show how they can protect the proposed area from the threats of damage posed by international maritime activities occurring in and around the area. Where IMO measures already exist to protect the area, then the application should show how the area is already being protected by such measures.
2. The proposed associated protective measures could include:
 - 2.1. Any measure that is already available in an existing instrument

These could include:

 - 2.1.1. *Ships' routeing measures.* Ships' routeing measures, established pursuant to regulation V/10 of the Safety of Life at Sea (SOLAS) Convention and in accordance with the General Provisions on Ships' Routeing (GPSR) (Assembly resolution 572(14), as amended), can be established to improve safety of life at sea, safety, and efficiency of navigation, and/or protection of the marine environment. The precise objectives of any routeing system will depend upon the particular circumstances that it is intended to alleviate, but may include some or all of the following:
 1. the separation of opposing streams of traffic so as to reduce the incidence of head-on encounters;
 2. the reduction of dangers of collision between crossing traffic and shipping in established traffic lanes;
 3. the simplification of the patterns of traffic flow in converging areas;
 4. the organisation of safe traffic flow in areas of concentrated offshore exploration or exploitation;
 5. the organisation of traffic flow in or around areas where navigation by all ships or by certain classes of ship is dangerous or undesirable;
 6. the organisation of safe traffic flow in or around or at a safe distance from environmentally sensitive areas;
 7. the reduction of risk of grounding by providing special guidance to vessels in areas where water depths are uncertain or critical; and
 8. the guidance of traffic clear of fishing grounds or the organisation of traffic through fishing grounds.
 - 2.1.2. Routeing systems detailed in IMO's GPSR include traffic separation schemes, two-way routes, recommended tracks, areas to be avoided, no anchoring areas, inshore traffic zones, roundabouts, precautionary areas, and deep-water routes.



2.1.3. All ships' routing measures that extend beyond territorial seas must be adopted by IMO in accordance with the IMO General Provisions on Ships' Routing. Measures adopted in internal waters and territorial seas do not necessarily need to be adopted by IMO, although obtaining IMO approval does encourage compliance by foreign-flagged vessels. Ships' routing measures adopted by IMO can be either recommendatory or mandatory in nature. The following discussion highlights a few:

1. Areas to be Avoided (ATBA): These can be adopted to prevent either all ships from entering the area, or by preventing certain categories of ships, or ships carrying certain cargoes from entering the area. They can be adopted because navigation in the area is particularly hazardous, because it is exceptionally important to avoid casualties in the area, or because ships should not enter the area for environmental reasons. This measure can be used to help prevent operational discharges and to prevent illegal discharges in the area. The classes of vessels which should avoid the area should be considered in each particular case. They are usually non-mandatory, although shipping would normally abide by these measures. They are designated on charts as follows:

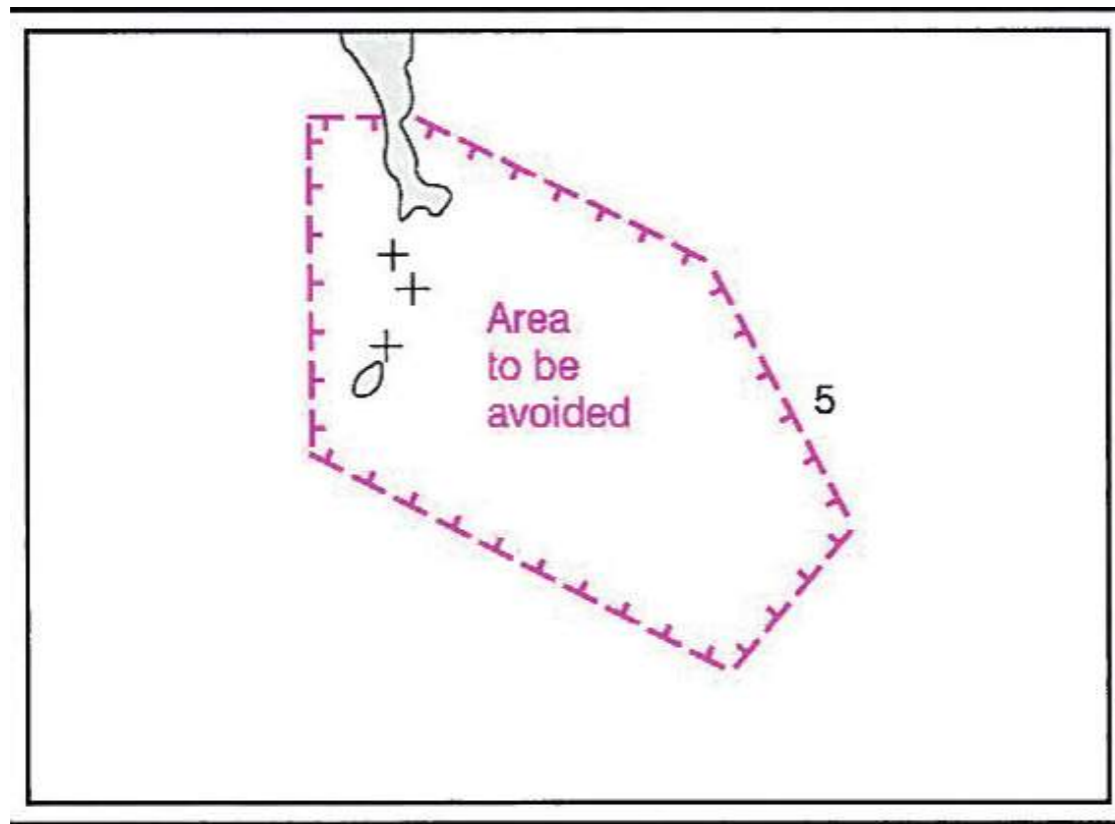


Figure 1
Area to be avoided

2. Traffic separation schemes: These can improve safety of navigation in converging areas and in areas where the density of traffic is high. Traffic Separation Schemes can be adopted to ensure that ships take the safest passage in or around or at safe distance from environmentally sensitive areas. Some are designated on charts as follows:

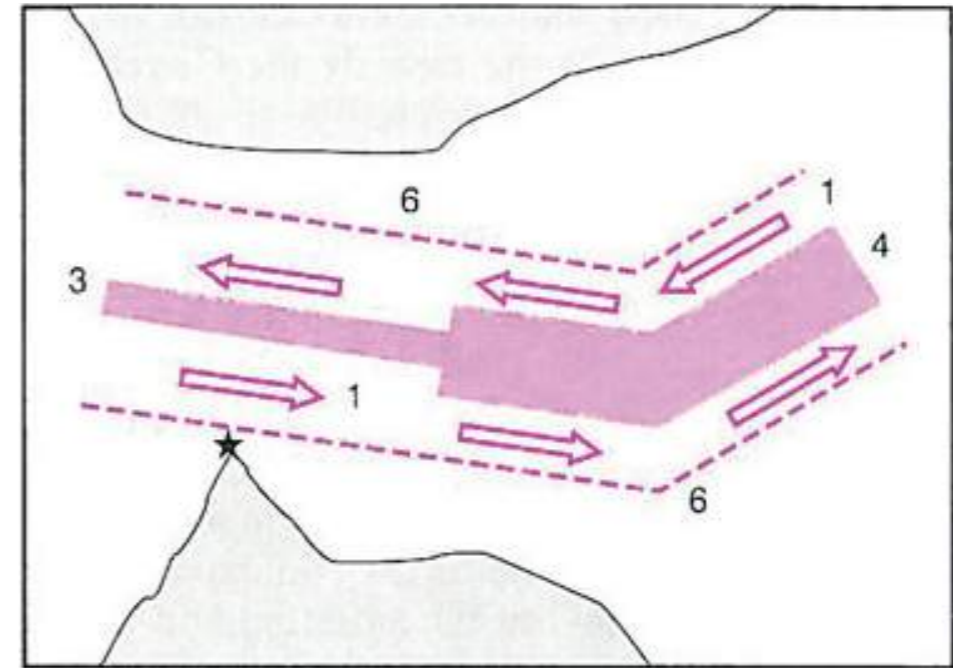


Figure 2
Traffic separation by separation zone.

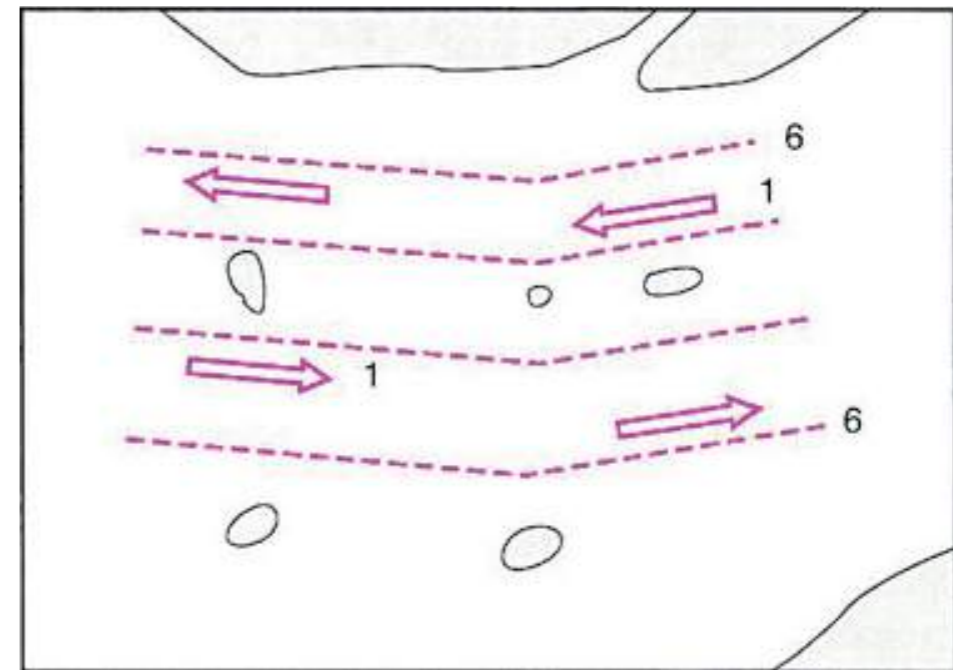


Figure 3
Separation of traffic by natural objects

- 3. Deep-Water Routes: These can improve safety of navigation as they have been surveyed for clearance of sea bottom and submerged obstacles. Some are designated on charts as follows:

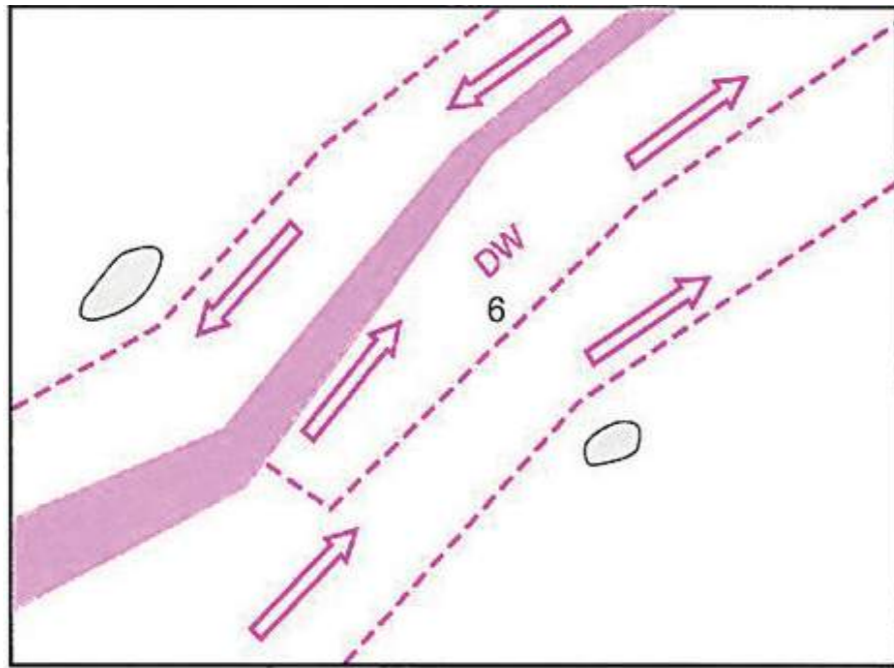


Figure 4
One-way deep-water route (within a traffic lane)

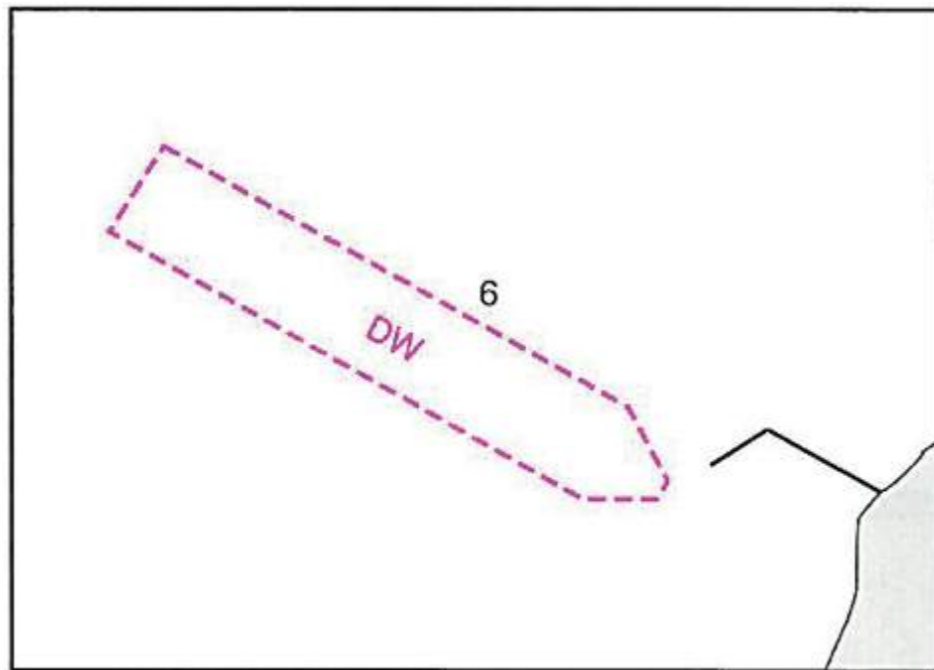


Figure 5
Deep-water route (two-way traffic)

- 4. Inshore traffic zones: These are areas between the landward boundary of a traffic separation scheme and the adjacent coast and can be used for steering transiting traffic away from shallower coastal waters. They are designated on charts as follows:

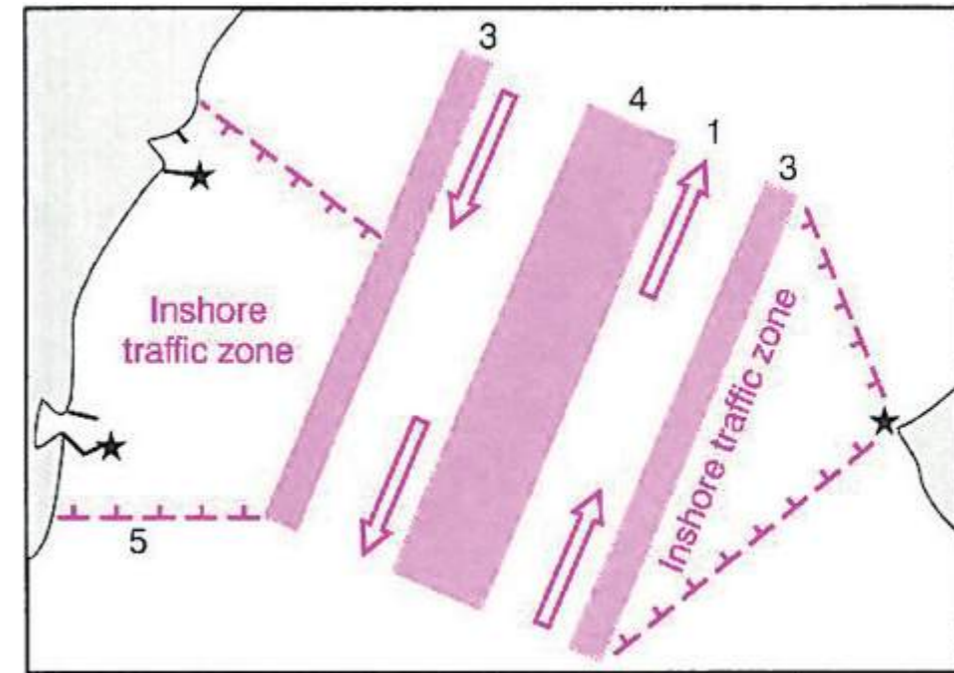


Figure 6
Inshore traffic zones

- 5. Precautionary areas: Areas where navigation is particularly hazardous. These are adopted to emphasise the need for care in navigation. Some are designated on charts as follows:

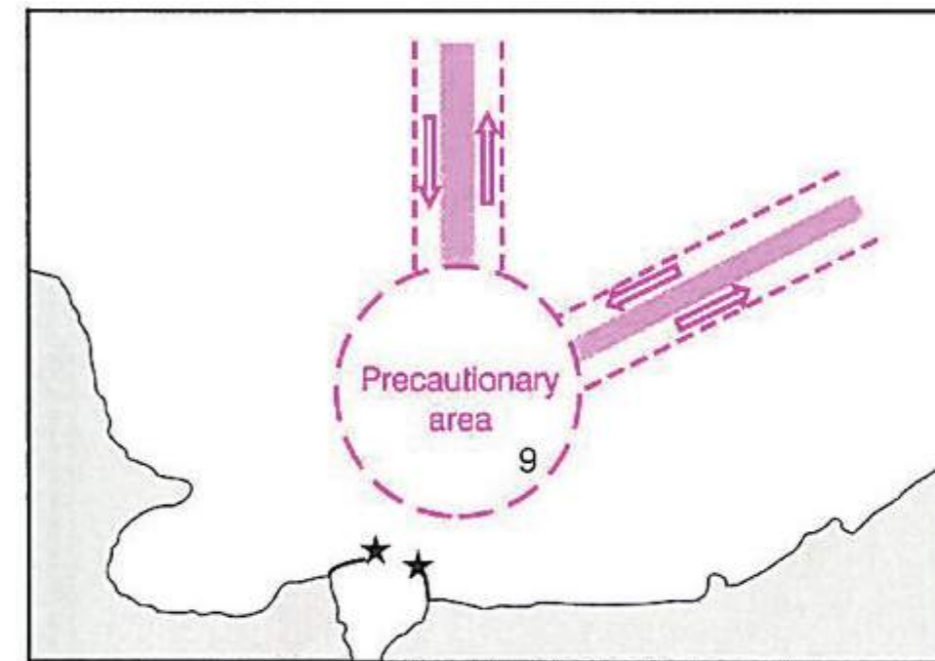


Figure 7
Precautionary area at a focal point (harbour entrance)

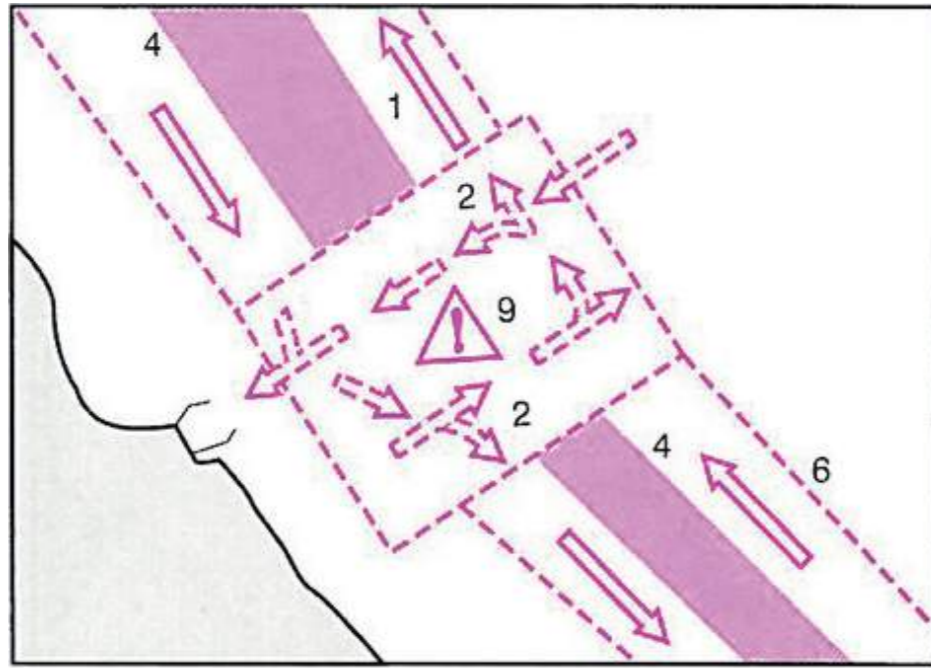


Figure 8
Precautionary area at a junction with recommended directions of traffic flow

- 6. No anchoring areas: Areas within defined limits where anchoring is hazardous or could result in unacceptable damage to the marine environment. Anchoring in a no anchoring area should be avoided by all ships or certain classes of ships, except in case of immediate danger to the ship or the persons on board. They are designated on charts as follows:

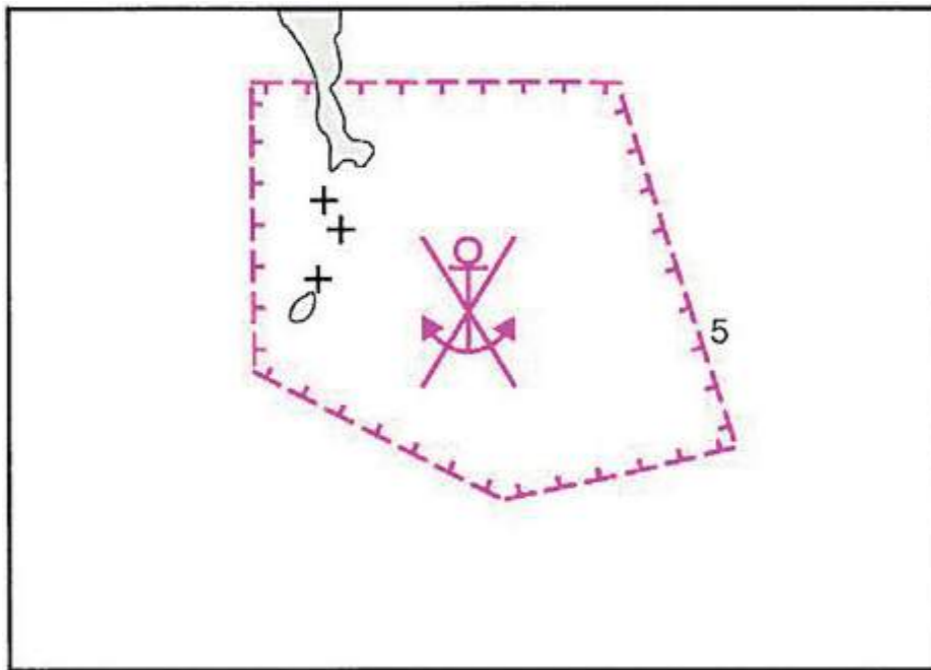


Figure 9
No anchoring area

- 7. Traffic lanes (including archipelagic sea lanes), roundabouts, two-way routes, recommended and established routes, recommended direction of traffic flow are all other measures that can be taken to increase safety of navigation and to minimise the risk of collisions through areas which are hazardous. Some are designated on charts as follows:

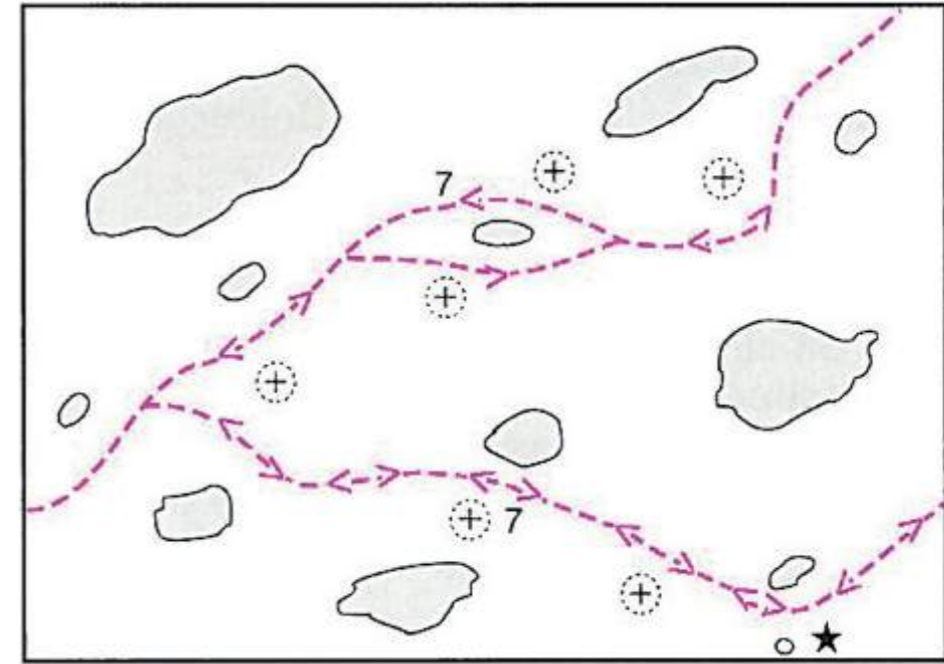


Figure 10
Recommended tracks

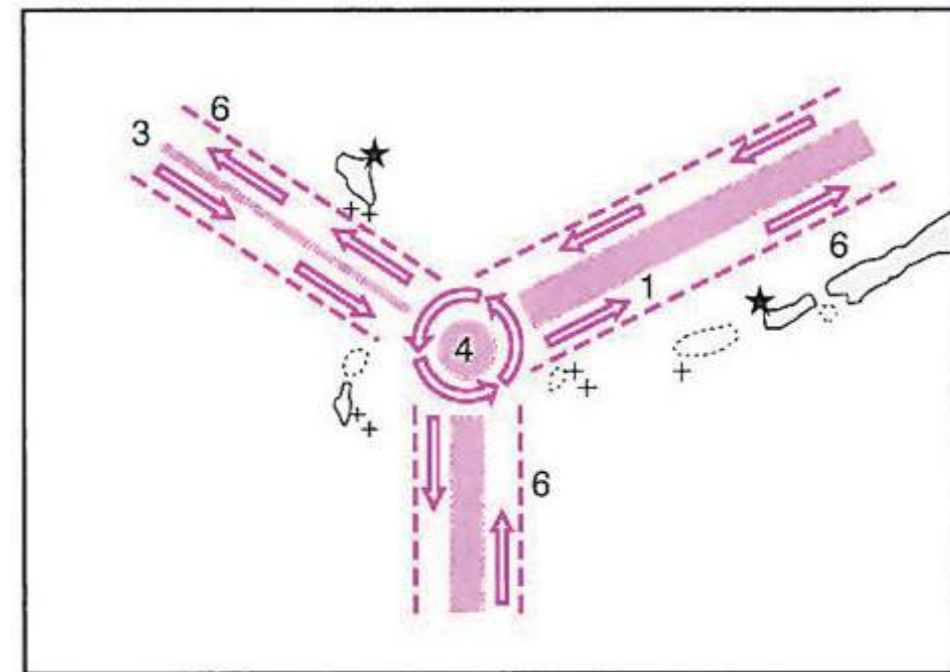


Figure 11
Separation of traffic at a roundabout

2.1.4. Ships' reporting systems. Ships' reporting systems, established pursuant to regulation V/11 of the SOLAS Convention and in accordance with the General Provisions on Ships' Routeing, can be established to improve safety of life at sea, safety, and efficiency of navigation, and/or protection of the marine environment. Although it is not necessary to obtain IMO approval for establishing ships' reporting systems, obtaining such approval does encourage compliance by foreign-flagged vessels. As with the ships' routeing systems, the reporting systems adopted by IMO can be either recommendatory or mandatory in nature.

Procedures for routeing and reporting measures

2.1.5. Proposals for ships' routeing and/or reporting measures that extend beyond the territorial sea must be submitted to IMO's Maritime Safety Committee for adoption. The required information and procedures are summarised below, but the most up-to-date edition of the IMO General Provisions on Ships' Routeing (Assembly Resolution 572 (14), as amended) and SOLAS Chapter V, regulation 10, and 11 should also be consulted. Guidance is available under MSC/Circ.1060, as amended (Guidance Note on the Preparation of Proposals on Ships' Routeing Systems and Ship Reporting Systems prepared by the Sub-Committee on Safety of Navigation).

2.1.6. Governments are expected to consult at an early stage with mariners, affected nations, authorities responsible for aids to navigation and hydrographic surveys, port authorities and organisations concerned with fishing, offshore exploration or exploitation and environmental protection, as appropriate. In areas where two or more governments have a common interest, nations are expected to submit joint proposals.

2.1.7. Before adopting a routeing system intended to protect an environmentally sensitive area, IMO will also consider whether:

- the proposed routeing system can reasonably be expected to significantly prevent or reduce the risk of pollution or other damage to the marine environment of the area concerned; and
- given the overall size of the area to be protected, or the aggregate number of environmentally sensitive areas established or identified in the geographical region concerned, the uses of routeing systems—particularly areas to be avoided—could have the effect of unreasonably limiting the sea area available for navigation.

2.1.8. IMO will only adopt a proposed routeing system if it is satisfied that the proposed system will not impose unnecessary constraints on shipping and is otherwise in accordance with the requirements of the International Convention for the Safety of Life at Sea (SOLAS), 1974. In particular, an area to be avoided will not be adopted if it would impede the passage of ships through an international strait.

2.1.9. IMO requires that proposals for mandatory reporting systems include, among other things:

- The objectives and demonstrated need for the proposed system;
- Categories of ships required to participate in the system;
- Relevant information pertaining to the hydrographical and meteorological elements, the characteristics of ship traffic and any environmental aspects of the area;
- The geographical coverage of the proposed system and the number and edition of the reference chart used for delineation of the system; and
- A summary of the measures used to date, if any, and the reasons why these measures are considered to be inadequate.

2.1.10. Pilotage schemes: Pilotage schemes can be established to improve safety of life at sea, safety of navigation, and/or protection of the marine environment. The pilot transfer arrangements are regulated under regulation V/23 of the SOLAS Convention. Although it is not necessary to obtain IMO approval for establishing pilotage schemes, obtaining such approval does encourage compliance by foreign-flagged vessels. The pilotage schemes adopted by IMO can be either recommendatory or mandatory in nature.

2.1.11. Vessel traffic services: Vessel traffic services (VTS) can be adopted pursuant to regulation V/12 of the SOLAS Convention to contribute to safety of life at sea, safety and efficiency of navigation, and the protection of the marine environment. Guidelines for Vessel Traffic Services, is found in Assembly resolution A 20/Res.857, as amended.

2.1.12. A VTS is particularly useful in an area that may include any of the following:

- High traffic density;
- Traffic carrying hazardous cargoes;
- Conflicting and complex navigation patterns;
- Difficult hydrographical, hydrological, and meteorological elements;
- Shifting shoals and other local hazards;
- Environmental considerations;
- Interference by vessel traffic with other—marine based activities;
- A record of maritime casualties;
- Existing or planned vessel traffic services in adjacent waters and the need for cooperation between neighbouring States, if appropriate;
- Narrow channels, port configuration, bridges, and similar areas where the progress of vessels may be restricted; and
- Existing or foreseeable changes in the traffic pattern resulting from port or offshore terminal developments or offshore exploration and exploitation in the area.

2.2. MARPOL: The International Convention for the Prevention of Pollution from Ships, 1973 (MARPOL Convention), as modified by a 1978 Protocol has measures

available to reduce or eliminate discharges from international shipping through the designation of an area as a Special Area. In MARPOL Annex I (Prevention of pollution by oil), Annex II (Control of pollution by noxious liquid substances), Annex IV (Prevention of pollution by sewage from ships) and Annex V (Prevention of pollution by garbage from ships), MARPOL defines certain sea areas as "special areas" in which, for technical reasons relating to their oceanographical and ecological condition and to their sea traffic, the adoption of special mandatory methods for the prevention of sea pollution is required. Under the Convention, these special areas are provided with a higher level of protection than other areas of the sea.

MARPOL 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 and nitrogen oxides (NOX) Emission Control Areas for Tier III NOX emission standards.

Procedures and criteria for the designation of Special Areas are contained in the annex to Assembly resolution A.1087(28)⁹. Criteria and procedures for the designation of SOX emission control areas are found in Appendix 3 to MARPOL Annex VI.

Given the omni-presence of international shipping, particularly along the east-west international maritime corridors, as well the inter Mediterranean country shipping routes, we note that the entire Mediterranean Sea is protected from international shipping through the Special Area status under MARPOL Annex I (oil) and MARPOL Annex V (Garbage).

MARPOL places a strong obligation on all shipping to prohibit allowable discharges of oil (usually from bilge water through the oily water separator (up to 15 parts per million) or oily waters from the cargo tanks, through the oil discharge and monitoring system). Subject to the provisions of MARPOL Annex I, inter alia, any discharge into the sea of oil or oily mixtures from any oil tanker, and any ship of 400 gross tonnage and above other than an oil tanker, is prohibited in the Special Area. Garbage disposal can only be discharged en-route and >12 nm from nearest land (exceptions for ground food and non-harmful cleaning agents exist which may be discharged within the Special Area).

For the Mediterranean Sea area, the issue of air quality has led to the preparation of a submission to MEPC to establish an emission control area in the Mediterranean. It is advisable to consider whether the discharge of sewage should be added to this in the future.

2.3. London Convention and Protocol: The "Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 1972", the "London Convention" for short, is one of the first global conventions to protect the marine environment from human activities and has been in force since 1975. Its objective is to promote the effective control of all sources of marine pollution and to take all practicable steps to prevent pollution of the sea by dumping of wastes and other matter. In 1996, the "London Protocol" was agreed to further modernise the Convention

and, eventually, replace it. Under the Protocol all dumping is prohibited, except for possibly acceptable wastes on the so-called "reverse list". The Protocol entered into force on 24 March 2006. The use of these instruments could be invoked to prohibit dumping of wastes at sea in a particular location or restrict the type of wastes dumped at sea. In the Mediterranean, under the Barcelona Convention and its Protocol for the Prevention of Pollution in the Mediterranean Sea by Dumping from Ships and Aircraft, the disposal at sea of sewage sludge and vessels, is prohibited (refer to article 4.2 of the Dumping Protocol for wastes that may be considered for dumping).

2.4. Other IMO environmental conventions

IMO has several other important conventions that provide possible measures that could be used as part of a PSSA. These include the Anti-fouling Systems Convention, 2001, which entered into force on 17 September 2008, and the Ballast Water Management Convention, 2004, which entered into force on 8 September 2017.

The AFSC aims to reduce or eliminate adverse effects on the marine environment and human health caused by anti-fouling systems.

The BWMC aims to "Prevent, minimize and ultimately eliminate the risks to the environment, arising from the transfer of harmful aquatic organisms and pathogens in ballast water.

....through the control and management of ships' ballast water and sediments"

More information about these instruments can be found at:

- <https://www.imo.org/en/OurWork/Environment/Pages/Anti-fouling.aspx>; and
- <https://www.imo.org/en/OurWork/Environment/Pages/BallastWaterManagement.aspx>.

Each could provide additional protection using the mechanisms available in the Conventions to amend or apply more stringently in accordance with international maritime law (UNCLOS).

2.5. Any measure that does not yet exist but that should be available as a general applicable measure and that falls within the competence of IMO

Some options which have been previously mentioned as possibilities include:

- Application of special discharge restrictions to vessels operating in a PSSA, other than those applicable for MARPOL Special Areas.
- Seasonal closures to protect migrating species.
- Prohibitions/restrictions on cargo transfers.
- Speed restrictions in specific areas.

2.6. Any measure proposed for adoption in the territorial sea^{10*} or pursuant to Article 211(6) of the United Nations Convention on the Law of the Sea

2.6.1. Article 211.6 of UNCLOS provides that where international rules are inadequate to meet special circumstances for discrete areas of the EEZ, coastal States may submit applications to IMO demonstrating why special mandatory measures, as developed by IMO, should become applicable. The text anticipates that IMO will develop special international rules, standards, and navigational practices for use in such areas. Applications must contain scientific and technical evidence to show that they have reasonable grounds for believing that an area requires additional protection, based on the area's special oceanographical and ecological conditions, as well as its utilisation or the protection of its resources, and the particular character of its traffic.

2.6.2. In addition to applying measures developed by IMO, a coastal State may at the same time notify IMO that it intends to adopt additional laws and regulations relating to discharges or navigational practices. These may not require new design, construction, manning or equipment standards (UNCLOS Article 211.6 (c)).

3. Overview of PSSAs established since 1990

Since 1990, IMO has designated seventeen (17) PSSAs, two of which form extensions to the Great Barrier Reef PSSA (Australia). Most recently, IMO designated the Tubbataha Reefs Natural Park in the Sulu Sea in the Philippines as a PSSA in 2017. IMO regularly publishes the list of PSSAs, which is attached at appendix.

Appendix – List of PSSAs designated by IMO since 1990

PSSA	Proposing State(s)	Associated Protective Measures ¹¹	MEPC resolution
Great Barrier Reef	Australia	IMO-recommended Australian system of pilotage; mandatory ship reporting system	September 1990 (Resolution MEPC.44(30))
Torres Strait extension	Australia, Papua New Guinea	IMO-recommended Australian system of pilotage; two-way route	22 July 2005 (MEPC.133(53))
South West Coral Sea extension	Australia	Area to be avoided; traffic separation systems	May 2015 (MEPC.268(68))
Archipelago of Sabana-Camaguey	Cuba	Area to be avoided	September 1997 (Resolution MEPC.74(40))

*. 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.

¹¹. This table only lists those APMs that have been specifically identified as APMs per se. There may be other IMO-adopted measures in the designated PSSA. In some cases, national measures may also be relevant.

PSSA	Proposing State(s)	Associated Protective Measures ¹¹	MEPC resolution
Sea Area Around Malpelo Island	Colombia	Area to be avoided	March 2002 (Resolution MEPC.97(47))
Marine Area Around the Florida Keys	United States	Areas to be avoided; mandatory no anchoring areas	March 2002 (Resolution MEPC.98(47))
Wadden Sea	Netherlands, Denmark, Germany	Mandatory deep-water route	October 2002 (Resolution MEPC.101(48))
Paracas National Reserve	Peru	Area to be avoided	July 2003 (Resolution MEPC.106(49))
Western European Waters	Belgium, France, Ireland, Portugal, Spain, and the United Kingdom	Mandatory ship reporting system	October 2004 (Resolution MEPC.121(52))
Torres Strait as an extension to GBR PSSA	Australia and Papua New Guinea	IMO-recommended Australian system of pilotage; two-way route	July 2003 (Resolution MEPC.133(53))
Canary Islands	Spain	Areas to be avoided; traffic separation systems; recommended routes; mandatory ship reporting system	March 2004 (Resolution MEPC.134(53))
Galapagos Archipelago	Ecuador	Area to be avoided; mandatory ship reporting system; recommended tracks	March 2004 (Resolution MEPC.135(53))
Baltic Sea Area	Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, and Sweden	Traffic separation schemes, deep-water route, areas to be avoided, mandatory ship reporting system, MARPOL Special Area; MARPOL SO _x Emission Control Area	March 2004 (Resolution MEPC.136(53))
Papahānaumokuākea Marine National Monument (North-western Hawaiian Islands)	United States	Areas to be avoided; recommended/mandatory ship reporting system	March 2007 (Resolution MEPC.171(57))
Strait of Bonifacio	France and Italy	Recommendation on navigation	July 2011 (Resolution MEPC.204(62))
Saba Bank (Caribbean Island of Saba)	The Netherlands	Area to be avoided; Mandatory no anchoring area	October 2012 (Resolution MEPC. 226(64))
Jomard Entrance	Papua New Guinea	Routeing System (4 two-way routes and a precautionary area)	28 Oct 2016 (MEPC.283(70))
Tubbataha Reefs Natural Park	Philippines	Area to be avoided	7 July 2017 (MEPC.294(71))

ANNEX 4. References

Maritime

SAFETY AND SHIPPING REVIEW 2019. An annual review of trends and developments in shipping losses and safety. ALLIANZ GLOBAL CORPORATE & SPECIALTY.

SAFETY AND SHIPPING REVIEW 2018. An annual review of trends and developments in shipping losses and safety. ALLIANZ GLOBAL CORPORATE & SPECIALTY.

Allianz Global Corporate & Specialty, Safety & Shipping 1912-2012. From Titanic to Costa Concordia. ALLIANZ GLOBAL CORPORATE & SPECIALTY.

IMO/UNEP, 2008. Study of Maritime Traffic Flows in the Mediterranean Sea Final Report - Unrestricted Version July 2008.

IMO/UNEP. Regional Information System; Part C2, Statistical Analysis - Alerts and Accidents Database, REMPEC, February 2011.

Nickie Butt and Paul Wright 2015. Protecting EBSAs and opportunities for the IMO: The use of EBSAs for informing designation of IMO PSSAs. A report compiled for the WWF.

Roberts, J. (2007). Marine Environment protection and biodiversity conservation: The application and future development of the IMO's Particularly Sensitive Sea Area concept. Berlin, Heidelberg, New York: Springer.

MEDESS-4MS, 2014. AIS Report. Mediterranean Decision Support System for Marine Safety. 2016-2021 Regional Strategy for Prevention of and Response to Marine Pollution from Ships Regional Strategy (2016-2021) in Report of Meeting, UNEP(DEPI)/MED IG.22/28, 2016 pp 245-333.

Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention) (1995).

Protocol Concerning Cooperation in Preventing Pollution from Ships and, in Cases of Emergency, Combating Pollution of the Mediterranean Sea (2002).

Protocol Concerning Specially Protected Areas and Biological Diversity in the Mediterranean (1995).

General PSSA and Special Areas

IMO, 2003. International Maritime Organization. The Convention on the International Regulations for Preventing Collisions at Sea, 1972, as amended. IB904E.

IMO, 2014. International Maritime Organization. The International Convention for the Safety of Life at Sea, 1974, as amended. Consolidated edition. IF110E.

IMO, 2017a. International Maritime Organization. Particularly Sensitive Sea Areas (PSSA). 2017 Edition. Compilation of official guidance documents and PSSAs adopted since 1990. IA545E.

IMO, 2017b. International Maritime Organization. The International Convention for the Prevention of Pollution from Ships, 1973 (MARPOL Convention), as modified by a 1978 Protocol. Consolidated edition. IE520E.

IMO, 2019. International Maritime Organization. General Provisions on Ships Routing (resolution A.572(14), as amended). IF927E.



Resolution MEPC.267(68), Amendments to the revised guidelines for the identification and designation of particularly sensitive sea areas (resolution a.982(24)).

Submission to MEPC for the Designation of Papahānaumokuākea (United States) – MEPC 56/8.

MEPC Resolution designating the Papahānaumokuākea Marine National Monument as a PSSA (MEPC.171(57)).

Submission to MEPC for the Designation of the marine area around the Florida Keys as a PSSA (United States) – MEPC 46/6/2.

MEPC Resolution designating the Florida Keys as a PSSA (MEPC.98(47)).

Ship Routeing

SOLAS, Chapter V, Regulation 10 – Ships' routeing (copy from SOLAS).

SN/Circ.215, Amendments to the General Provisions on Ships' Routeing.

MSC/Circ.1060, Guidance Note on the Preparation of Proposals on Ships' Routeing Systems and Ship Reporting Systems for Submission to the Sub-Committee on Safety of Navigation (and MSC.1/Circ.1060/Add.1).

Ships Reporting

SOLAS, Chapter V, Regulation 11 – Ships' reporting systems (copy from SOLAS).

Resolution MSC.43(64), Guidelines and Criteria for Ship Reporting Systems.

Resolution MSC.111(73), Adoption of Amendments to Guidelines and Criteria for Ship Reporting Systems (and resolution MSC.189(79)).

Vessel Traffic Services

SOLAS, Chapter V, Regulation 12 – Vessel traffic services (copy from SOLAS).

Resolution A.857(20), Guidelines for Vessel Traffic Services.

SPA/RAC WORKING AREAS

SPA/ RAC, the UNEP/ MAP **Specially Protected Areas Regional Activity Centre**, was created in 1985 to assist the Contracting Parties to the Barcelona Convention (21 Mediterranean countries and the European Union) in implementing the Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean (SPA/BD Protocol).



**Marine
turtles**



Cetaceans



**Mediterranean
Monk Seal**



**Cartilaginous
fishes**
(Chondrichthyans)



**Marine and coastal
bird species**

Listed in Annex II of the Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean



**Specially Protected
Areas**



Monitoring



**Coralligenous and other
calcareous
bio-concretions**



**Marine
vegetation**



Dark Habitats

Habitats and species associated with seamounts, underwater caves and canyons, aphotic hard beds and chemo-synthetic phenomena



**Species introduction
and invasive species**



Mediterranean
Action Plan
Barcelona
Convention



*The Mediterranean
Biodiversity
Centre*

Specially Protected Areas Regional Activity Centre (SPA/RAC)

Boulevard du Leader Yasser Arafet
B.P. 337 - 1080 - Tunis Cedex - Tunisia
+216 71 206 649 / +216 71 206 485
car-asp@spa-rac.org

www.spa-rac.org



MINISTERO DELL'AMBIENTE
E DELLA TUTELA DEL TERRITORIO E DEL MARE

This publication has been prepared
with the financial support of the
Italian Ministry for Environment,
Land and Sea Protection