Towards an OSPAR approach to High Seas conservation and High Seas Marine Protected Areas (HSMPA)

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10 December 2002
**The Josefine Bank - A Potential MPA**

**Location**
The Josefine Bank is located at 36° 35' N, 14° 15' W in international waters, between the Exclusive Economic Zones of continental Portugal and Madeira (Portugal).

**Potential Reasons for Selection**
The Josefine Bank is a seamount in international waters that is not isolated but relatively close to the continental shelf and connected to other seamounts by its topography and location in the reach of Mediterranean outflow of water. Due to its patchwork of various hard and soft substrates, it probably serves as a stepping stone for the dispersal, via pelagic larvae, of a wide variety of benthic species from similar habitats on the continental shelf and other seamounts. The area is also important for fish species that live around topographic elevations including several commercially valuable species.

**Seamounts**
Seamounts are underwater mountains of volcanic origin, either isolated or as part of a chain of elevations, rising steeply at least 1000 m from the surrounding flat abyssal plain. Due to their size and shape, seamounts have complex effects on oceanic circulation, often leading to upwelling. This provides ample nutrients for the enhancement of primary and, depending on the retention time, higher trophic production compared to the surrounding waters. The most striking biological feature of seamounts is their richness in hard bottom suspension feeders which benefit from the enhanced currents transporting rich planktonic life: corals can be particularly abundant with horny, stony and black corals being recorded where the currents are strongest, such as on vertical walls and on crests of seamounts with wide peaks. Further, sponges, hydroids, ascidians as well as crinoids, holothurians, shrimps a.o. occur and provide ample food and diverse habitats for fishes and other nektom to grow. Owing to this wealth, the density of large predatory fish near oceanic seamounts including swordfish, tuna, sharks and rays can be quite high, and aggregations of some otherwise dispersed species such as orange roughy (*Hoplostethus atlanticus*) often occur. Seamounts function as a stepping stone to transoceanic dispersal of species, and their degree of isolation is reflected in their richness in endemic species. The hard substrates on the tops and flanks of seamounts are made up of ancient hydrothermal precipitates, the so-called cobalt-rich ferromanganese crusts, rich in precious minerals such as cobalt, titanium, cerium, platinum, as well as manganese, copper and nickel.

**Site Description**
The Josefine Bank was subject to multidisciplinary investigations during the "Atlantische Kuppenfahrten" by R. V. Meteor in 1967. The knowledge gained with regard to the distribution of various taxa provides the background for this site description.
Biological Features of Josefine Bank

The species-rich fauna of Josefine Bank is typical for east Atlantic islands and possibly other offshore banks and seamounts. The particularly well investigated summit region offers a wide variety of substrates which are readily populated by sometimes high densities of mostly sessile suspension feeding species. 16 species of horny and black corals, 13 species of stony corals, but no pennatulids and neither shelf nor deep sea benthic species have been recorded. The gorgonian coral *Ellisella flagellum* was found to be very common on both the Josefine and Great Meteor Seamounts but morphologically different between these sites which points to some degree of isolation. Dense beds of another gorgonian, *Callogorgia verticillata*, coincide with large sponges on the top of Josefine, quite different from other seamounts (Fig. 2). Sandy substrates are inhabited by the ascidian *Seriocarpa rhizoides*. The meroplanktic larvae of most of the 18 benthic decapod species do not occur over deep water and show few similarities to the shelf. Holozooplankton and euphausid populations are of oceanic origin, their densities modified by the bank. 26 species of benthopelagic fish have been determined from non-commercial trawls along the slopes and summit of Josefine, among these commercial species such as a long-lived rockfish (*Helicolenus dactylopterus*), the splendid perch (*Callanthias ruber*), a gamefish, and the longspine snipefish which is caught for aquaria.

![Fig. 2: Dense beds of horny corals, mostly *Callogorgia verticillata* on the top of Josefine Bank. (by A.L. Rice, in Gage & Tyler 1991)](http://www.neafc.org/press%20release%204.doc)

Management Considerations

The "freedom of the high seas" guaranteed by the UN Convention on the Law of the Sea (UNCLOS) has led to unregulated exploitation of the living resources which were thought to be shared by all nations. In the North-East Atlantic, despite advice from the International Council for the Exploration of the Sea (ICES) to the European Commission and the North-East Atlantic Fisheries Council (NEAFC) to agree on a moratorium for deep water fishing until there is a scientific basis for stock assessments, both fora failed to implement adequate management measures. Lack of knowledge is typical for offshore features in general, and for possible alterations of the natural state at seamounts within reach of fisheries in particular. Here, the precautionary approach has to be applied in order to minimise and control future human impacts.

Legal Aspects

Josefine Bank is located in the High Seas sector of the OSPAR Maritime Area and no conservation measures have yet been applied outside national jurisdiction. However, the World Summit on Sustainable Development (WSSD) in 2002 called for action to maintain the productivity and biodiversity of important and vulnerable marine areas both within and beyond national jurisdiction. It urged nations to make significant progress within a concrete time frame, calling for adoption of the ecosystem approach by 2010 and the establishment of representative networks of MPAs by 2012. The resolution of the UN General Assembly A/57/L.48 endorses the Plan of Implementation adopted at WSSD and further calls for urgent and coordinated action to protect seamounts and other vulnerable benthic habitats.

Action Required

OSPAR is the regional seas agreement under which the commitment to implement a representative network of MPAs by 2010, including the High Seas, has been adopted. OSPAR has the opportunity to lead the global endeavours to protect vulnerable seamounts. The rapid increase in fishing pressure in the High Seas further emphasizes the need to get actively involved in developing measures to achieve enduring and sustainable conservation of seamounts and related features in the OSPAR Maritime Area.

Text prepared by Sabine Christiansen

References/Further Reading


and colonisation. In the MAR, a combination of source rock, depth, alteration of fluid composition and stability seem to be the determinants for the species composition. The fraction of species endemic to hydrothermal vents increases with depth. The lower toxicity of the venting fluids at shallower vent fields allows the mobile deep sea fauna from the surrounding abyssal plain to penetrate and use the accumulated biomass. The vent fields of the MAR can be divided into the shallow northern and the southern abyssal vent fields (Fig. 1). Their differences in geological origin and depth-related variations in the nature of the venting systems are reflected by the benthopelagic and planktonic communities. Two mussel species of the genus *Bathymodiolus* show the same differentiation between northern and southern species with a potentially intermediate form in the middle part of the vent fields.

**Potential Reasons for Selection**

Hydrothermal vents are sensitive ecosystems and limited in their spatial extent. The location of the relatively shallow Rainbow hot vent field close to the Azores makes it rather easily accessible, just as the Saldanha (a warm methane vent field) and the Famous (cold) vent fields nearby.

Since its discovery in 1997, Rainbow has been the frequent focus of scientific expeditions and is the only vent field on the Mid-Atlantic ridge that has been visited by tourist operators already several times. Different types of investigations such as long-term monitoring activities, manipulative experiments and geological sampling interfere with each other and with other activities like tourism and mining. As little is known about the ecosystem structure, the impact of such human interferences is unpredictable.

The designation of the Rainbow hydrothermal vent field as a marine protected area under OSPAR and the resulting coordination and management of activities would facilitate a spatial and temporal separation of incompatible activities and prevent unsustainable damage to the unusual and unique ecosystem the vent field supports.

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**Rainbow - A Potential MPA**

**Location**

The Rainbow hydrothermal vent field is located at 36°13.8’N, southwest of the Azores on the Azorean segment of the Mid-Atlantic Ridge (MAR) at 2270-2320 m depth in international waters.

**Potential Reasons for Selection**

Hydrothermal vents are sensitive ecosystems and limited in their spatial extent. The location of the relatively shallow Rainbow hot vent field close to the Azores makes it rather easily accessible, just as the Saldanha (a warm methane vent field) and the Famous (cold) vent fields nearby.

Since its discovery in 1997, Rainbow has been the frequent focus of scientific expeditions and is the only vent field on the Mid-Atlantic ridge that has been visited by tourist operators already several times. Different types of investigations such as long-term monitoring activities, manipulative experiments and geological sampling interfere with each other and with other activities like tourism and mining. As little is known about the ecosystem structure, the impact of such human interferences is unpredictable.

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**Rainbow - A Potential MPA**

**Site Description**

The Rainbow vent field comprises more than 30 groups of active small sulphide chimneys over an area of 15 km². There are numerous inactive structures among a large number of rather short-lived active venting sites. Together with the vent fields of Lucky Strike and Menez Gwen it forms the group of the northern bathyal vent fields. Rainbow is based on ultramafic rocks, with the acid vent fluids having a particularly low organic but high inorganic content of methane, sulphur, calcium, iron and copper. Bursts of venting fluid cause temperatures to vary between 3-6° C in the mussel beds and 11-13° C in the shrimps environment.
Biological Features
About 32 different species have been recorded in the Rainbow area so far including several new to the MAR like the zoarcid fish species *Pachycara sp.* Due to the environmental conditions, the species community differs considerably between Rainbow and the two other shallower fields Lucky Strike and Menez Gwen in the Azorean Exclusive Economic Zone (EEZ). Similarities to the southern vent fields, namely TAG and Broken Spur are evident from the occurrence of the brisiliid shrimp *Rimicaris exoculata* prevailing over mussels at the chimneys. Mussels of the species *Bathymodiolus azoricus* and *B. seepensis* dominate the community on surrounding blocks within the active area. Several other species like *Mirocaris fortunata* and *Amatys lutzi* are found in addition.

![Image](http://www.spaceadventures.com/terrestrial/innerspace/)

**Fig. 2: Rimicaris exoculata aggregation at one of the Rainbow vents. Photograph courtesy of © ATOS/Ifremer**

Threats
The small spatial extent and site-specific communities make vent fields highly vulnerable to the increasing levels of scientific and commercial exploitation. Immediate concern is arising from the direct effects of sampling (substrate and specimens), the related risk of unintended species transfer between vents within a field, as well as impacts caused by movement of vehicles and litter. The Rainbow vent field is part of a larger study area to the southwest of the Azores (MOMAR) which is designated for long-term monitoring of biological and geological evolution. Uncoordinated activities are likely to counteract these long-term studies. As the two adjacent vent fields Lucky Strike and Menez Gwen will be managed as marine protected areas by the Regional Government of the Azores, human activities might shift to Rainbow in response and commercial interests in bioprospecting and mineral mining increase the pressure.

Legal Aspects
The Rainbow vent field is located in the High Seas sector of the OSPAR Maritime Area. The regional delivery mechanism for the Convention on Biological Diversity (CBD) is based on Annex V to the OSPAR Convention. Even though conservation measures have never been applied to sites in international waters the 15 Contracting Parties to OSPAR committed themselves to establish an ecologically coherent network of MPAs in the OSPAR Maritime Area by 2010, including the High Seas. The World Summit on Sustainable Development (WSSD) in 2002 encouraged nations to establish representative networks of MPAs by 2012 and to take action at the regional and global level to halt the loss of marine biodiversity. Furthermore, under the United Nations Convention on the Law of the Sea (UNCLOS), all states have the responsibility to ‘protect and preserve rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species and other forms of marine life in the marine environment’. Also, the International Seabed Authority (ISA) established under UNCLOS, is currently developing regulations for future mining activities in the Area, including provisions to prevent harm to sensitive and important ecosystems such as hydrothermal vents from seabed mining for polymetallic sulphides. Under Article 162(2)(x), the Council of the ISA has a duty to disapprove areas for exploitation in cases where ‘substantial evidence indicates the risk of serious harm to the marine environment’. Hydrothermal vents figure on the OSPAR priority list of habitats and species and are considered to be of special concern all over the OSPAR Maritime Area. The distinctiveness of the vent fields in the OSPAR area from those further south on the MAR re-emphasises the responsibility of the OSPAR Commission to develop measures for enduring and sustainable conservation and use of the vent fields in its remit.

Action Required
In order to facilitate a spatial and temporal separation of incompatible activities, and to minimise potentially unsustainable human disturbance to these rare and sensitive ecosystems, it is proposed that OSPAR designates the Rainbow vent field (in conjunction with Saldanha and Famous) as an obligatory part of the OSPAR Convention’s system of marine protected areas. As a first step, a voluntary agreement is proposed, setting the terms of reference for the development of a management plan to be implemented by all Contracting Parties to OSPAR. As a second step, OSPAR may seek global implementation under UNCLOS.

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**References/Further Reading**
Deep-Water Fishing

The fishery around Rockall dates back about two centuries. It first targeted cod, haddock and halibut on the shallower parts of the bank. In the 1970s, Russian, German and French trawlers started exploiting blue ling, roundnose grenadier, black scabbardfish and deep-water sharks. Since the UK relinquished its claim to a 200 nm fishery zone around Rockall, an international fishery has developed both on the top of the bank and the deeper water. The unregulated fishery for haddock in the shallower water is currently a concern. The more recent deep-water fisheries concentrate on the slopes of the continental shelf as well as comparable banks and seamounts. They mainly target anglerfish on the upper slope (trawl, gillnet), roundnose grenadier and blue ling with black scabbardfish and deep-water sharks. At depths greater than 1500 m, the fish biomass declines and the species caught have little or no commercial value. Demersal trawling is considered to cause the highest damage to benthic habitats and fish populations due to its physical impact and unselectivity.

Longlining is more selective, but discard rates for both gears often exceed 50% of the catch, most of it being true deep-sea fishes like grenadiers, smoothheads and sharks. The rapid expansion of deep-water fisheries by far exceeds the advance in knowledge on fish biology, stock structures and the ecosystem. Adaptation to the deep-sea environment has produced life history traits such as increased longevity, slow growth rates and high age at sexual maturity, and low reproduction. This led Merrett & Haedrich (1997) to consider deep-sea fish to be a non-renewable resource.

Potential Reasons for Selection

Despite the patchiness of data, the Rockall Bank is probably the best known offshore bank rising from the deep-sea in the north Atlantic. It represents a continuum of ecosystems from typical deep sea environments in the Rockall Trough and Hatton-Rockall Basin to the shallow and shelf-type upper plateau conditions. It is of great significance in the North-East Atlantic region due to its extensive coral-associated communities from 150-1000 m depth which support rich biological resources in terms of fish populations. Probably, decades of trawling have already caused substantial damage to the Lophelia pertusa colonies, thickets and possibly reefs, as well as to the soft sediment of the slope regions. Oil and gas exploration has been licensed on its eastern margins.

Offshore Banks

Underwater elevations from the seafloor with extended summit regions are called banks, in comparison to small topped seamounts. However, as both features modify the oceanographic conditions in a similar way, they are often considered together as ‘seamounts and related underwater features’. Ocean currents are enhanced at offshore banks, amplifying the overall food web production. In current-swept regions, sessile suspension feeder communities may predominate and form habitats such as cold water corals and deep-water sponges. These may form essential fish habitat, e.g. by providing spawning grounds and refuges.

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**Site Description**

The Rockall Bank is a very large feature, oriented SW-NE and rising from more than 1000 m depth to break the surface towards the NE (Rockall). The shallow part of the bank is about 150 km long and max. 60 km wide at depths ranging from 220 m to 65 m. The substrate changes gradually, from low rock ridges and boulder fields covered in coarse sand to a cover of fine sand. While the near-bottom currents appear to circulate clockwise, the surface currents circulate in an anti-clockwise direction. The resulting gyre produces upwelling conditions for a rich planktonic life.

**Biological Features**

Surveys on the flanks of the Rockall Bank and along the UK continental margin have revealed cold-water coral communities down to 1000 m depth consisting of *Lophelia pertusa*, *Madrepora oculata*, coral debris and an associated community. Coral colonies and thickets are scattered around the shallower parts of the bank from 150-400 m depth whereas large reef structures are found below 500 m on the eastern flank. These reefs partly form mounds up to 350 m high. The fauna of the sampled mounds consists of sponges, hydroids, bryozoans, ascidians, including the coral *Desmophyllum dianthus* and the hydroid *Stylaster sp.* Polychaetes such as *Eunice norvegicus*, the common inarticulate brachiopod *Crania anomala* and molluscs including *Arca sp.*, *Acesta excavata*, *Heteronomia squamula*, *Epitonium clathratus* have been found as well. Between 400 m and abyssal depths, there is a diverse demersal fish fauna (>130 species). At any given depth down to 1500 m, a research trawl will yield between 40 -50 species of fish. Further below, the number rapidly declines.

**Threats**

The Rockall Bank has been targeted by trawlers for cod, hake and blue whiting for many years, and for deep-water fish more recently. Hence, *Lophelia pertusa* on the shallower parts of the bank is almost certainly impacted. Whether or not the deeper reefs have been significantly impacted is still uncertain. It is known, however, that the UK continental margin to the east of the Rockall Bank shows trawl scars from as early as 1988. The exploitation of hydrocarbon resources remains an unquantified threat.

**Management Considerations**

The establishment of an MPA at Rockall Bank will be most beneficial to the benthic habitats and species, and to a lesser extent to target and non-target fish species. Since 1998, ICES ACFM has been pointing to the fact that deep-water stocks including anglerfish, are being exploited ‘outside safe biological limits’. Information on age distribution and stock identification is inadequate and more reliable assessments need to be carried out. Landings data are not always at species level and there are concerns about the accuracy and location of the landings. In 2002, the EC has stopped short of implementing a moratorium on these fisheries but instead, from January 2003, began the process of regulation by introducing quotas and various methods of reducing the fishing effort. In international waters, the Contracting Parties to the North-East Atlantic Fisheries Commission (NEAFC) agreed to freeze fishing effort at current levels from January 2003.

**Legal Aspects**

The "freedom of the high seas" guaranteed by the UN Convention on the Law of the Sea (UNCLOS) has led to unregulated exploitation of the living resources which were thought to be shared by all nations. However, as recognised at the World Summit on Sustainable Development (WSSD) and endorsed by the UN General Assembly in its resolution A/57/L.48 in 2002, it is time for nations to take action to „develop ... programmes for halting the loss of marine biodiversity, in particular fragile ecosystems” through „tools including ... the elimination of destructive fishing practices, the establishment of MPAs ...”.

**Action Required**

Gordon (2001a) concluded that „there is general agreement amongst scientists, the fishing industry and the politicians that the deep-water stocks are seriously overexploited but political imperatives dictate that uncertainties and inconsistencies in the scientific assessment and advice are used to postpone the urgent action that is required”. OSPAR has to take responsibility for the preservation of the species and habitats in the North-East Atlantic by inter alia advocating a management of human activities including deep-water fisheries which helps conserve, and where necessary, restore ecosystems and biological diversity.

**References/Further Reading**

http://www.jncc.gov.uk/marine/fisheries/Reports/rpt_deepWater.htm


Advisory Committee on Fisheries Management. Copenhagen.


Fifty-seventh session
Agenda item 25 (a)
Oceans and the law of the sea: oceans and the law of the sea

Australia, Austria, Barbados, Belgium, Belize, Brazil, Bulgaria, Canada, Cyprus, Denmark, Fiji, Finland, France, Germany, Greece, Guinea, Iceland, Ireland, Italy, Jamaica, Luxembourg, Madagascar, Malta, Marshall Islands, Mexico, Micronesia (Federated States of), Monaco, Namibia, Nauru, Netherlands, New Zealand, Norway, Papua New Guinea, Poland, Portugal, Russian Federation, Saint Lucia, Saint Vincent and the Grenadines, Samoa, Senegal, Sierra Leone, Solomon Islands, Spain, Sri Lanka, Sweden, Tonga, Tuvalu, Ukraine, United Kingdom of Great Britain and Northern Ireland, United States of America, Uruguay and Vanuatu: revised draft resolution

Oceans and the law of the sea

The General Assembly,


Emphasizing the universal and unified character of the Convention and its fundamental importance for the maintenance and strengthening of international peace and security, as well as for the sustainable development of the oceans and seas,

Reaffirming that the Convention sets out the legal framework within which all activities in the oceans and seas must be carried out and is of strategic importance as the basis for national, regional and global action and cooperation in the marine

sector, and that its integrity needs to be maintained, as recognized also by the United Nations Conference on Environment and Development in chapter 17 of Agenda 21.

Conscious that the problems of ocean space are closely interrelated and need to be considered as a whole through an integrated, interdisciplinary and intersectoral approach,

Convinced of the need, building on arrangements established in accordance with the Convention, to improve coordination at the national level and cooperation and coordination at both intergovernmental and inter-agency levels, in order to address all aspects of oceans and seas in an integrated manner,

Recognizing the important role that the competent international organizations have in relation to ocean affairs, in implementing the Convention and in promoting the sustainable development of the oceans and seas,

Welcoming the outcome of the World Summit on Sustainable Development, held at Johannesburg, South Africa, from 26 August to 4 September 2002,

Recalling the essential role of international cooperation and coordination in promoting the integrated management and sustainable development of the oceans and seas, and recalling also that the role of international cooperation and coordination on a bilateral basis and, where applicable, within a subregional, regional, interregional or global framework is to support and supplement the national efforts of all States, including coastal States, in promoting the implementation and observance of the Convention and the integrated management and sustainable development of coastal and marine areas,

Recalling also article 200 of the Convention, in which States are encouraged to participate actively in regional and global programmes to acquire knowledge for the assessment of the nature and extent of marine pollution, and welcoming in this regard the recommendation of the World Summit on Sustainable Development to establish by 2004 a regular process under the United Nations for global reporting and assessment of the state of the marine environment, including socio-economic aspects, both current and foreseeable, building on existing regional assessments,

Underlining once again the essential need for capacity-building to ensure that all States, especially developing countries, in particular least developed countries and small island developing States, are able both to implement the Convention and to benefit from the sustainable development of the oceans and seas, as well as to participate fully in global and regional forums and processes dealing with oceans and law of the sea issues,

Emphasizing the need to strengthen the ability of competent international organizations to contribute, at the global, regional, subregional and bilateral levels, including through cooperation programmes with Governments, to the development of national and local capacity in marine science and the sustainable management of oceans and their resources,

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4 Ibid., resolution 2, annex, para. 36 (b).
Taking note of the report of the Secretary-General, and emphasizing in this regard the critical role of the annual comprehensive report of the Secretary-General, which integrates information on developments relating to the implementation of the Convention and the work of the Organization, its specialized agencies and other institutions in the field of ocean affairs and the law of the sea at the global and regional levels, and as a result constitutes the basis for the annual consideration and review of developments relating to ocean affairs and the law of the sea by the General Assembly as the global institution having the competence to undertake such a review,

Taking note also of the report on the work of the United Nations Open-ended Informal Consultative Process (the “Consultative Process”) established by the General Assembly in its resolution 54/33 in order to facilitate the annual review by the Assembly of developments in ocean affairs at its third meeting,

Reiterating its concern at the adverse impacts on the marine environment from ships, including pollution, in particular through the illegal release of oil and other harmful substances and by the dumping of hazardous waste, including radioactive materials, nuclear waste and dangerous chemicals, as well as physical impacts on coral,

Welcoming resolution GC(46)/RES/9 adopted on 20 September 2002 by the General Conference of the International Atomic Energy Agency at its forty-sixth session, concerning measures to strengthen international cooperation in nuclear, radiation, transport and waste safety, including those aspects relating to maritime transport safety,

Noting the responsibilities of the Secretary-General under the Convention and related resolutions of the General Assembly, in particular resolutions 49/28, 52/26 and 54/33, and in this context the expected increase in responsibilities of the Division for Ocean Affairs and the Law of the Sea of the Office of Legal Affairs of the Secretariat in view of the progress in the work of the Commission on the Limits of the Continental Shelf (“the Commission”) and the anticipated receipt of submissions from States, in addition to the expected growing involvement of the Division with requests for technical assistance from States and its role in inter-agency coordination and cooperation,

I. Implementation of the Convention and related agreements and instruments

1. Calls upon all States that have not done so, in order to achieve the goal of universal participation, to become parties to the Convention and the Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982 (“the Agreement”);  

2. Reaffirms the unified character of the Convention;

3. Calls once again upon States to harmonize, as a matter of priority, their national legislation with the provisions of the Convention, to ensure the consistent

5 A/57/57 and Add.1.
6 A/57/80.
8 Resolution 48/263, annex.
application of those provisions and to ensure also that any declarations or statements that they have made or make when signing, ratifying or acceding to the Convention are in conformity therewith and, otherwise, to withdraw any of their declarations or statements that are not in conformity;

4. Encourages States parties to the Convention to deposit with the Secretary-General charts and lists of geographical coordinates, as provided for in the Convention;

5. Welcomes the entry into force on 11 December 2001 of the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks,9 and calls upon all States that have not yet done so to become parties to it;

6. Emphasizes the essential need to also improve the implementation of international agreements in accordance with article 311 of the Convention and, where appropriate, to foster the conditions for the application of instruments of a voluntary nature, and recalls the important role of international organizations in achieving these goals;

II. World Summit on Sustainable Development

7. Welcomes the Plan of Implementation, adopted at the World Summit on Sustainable Development on 4 September 2002,10 which once again emphasizes the importance of addressing the sustainable development of oceans and seas and provides for the further implementation of chapter 17 of Agenda 21;

8. Welcomes also the commitments set out in the Plan of Implementation to actions at all levels, within specific periods for certain goals, to ensure the sustainable development of the oceans, including sustainable fisheries, the promotion of the conservation and management of the oceans, enhancement of maritime safety and protection of the marine environment from pollution, and the improvement of scientific understanding and assessment of marine and coastal ecosystems as a fundamental basis for sound decision-making;

III. Meeting of States Parties

9. Requests the Secretary-General to convene the thirteenth Meeting of States Parties to the Convention in New York from 9 to 13 June 2003 and to provide the services required;

IV. Settlement of disputes

10. Notes with satisfaction the continued contribution of the International Tribunal for the Law of the Sea (“the Tribunal”) to the peaceful settlement of disputes in accordance with Part XV of the Convention, underlines its important role and authority concerning the interpretation or application of the Convention and the Agreement, encourages States parties to the Convention to consider making a

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9 International Fisheries Instruments with Index (United Nations publication, Sales No. E.98.V.11), sect. I; see also A/CONF.164/37.
written declaration choosing from the means set out in article 287 for the settlement of disputes concerning the interpretation or application of the Convention and the Agreement, and invites States parties to note the provisions of annexes V, VI, VII and VIII to the Convention concerning, respectively, conciliation, the Tribunal, arbitration and special arbitration;

11. *Equally pays tribute* to the important and long-standing role of the International Court of Justice with regard to the peaceful settlement of disputes concerning the law of the sea;

12. *Recalls* the obligation under article 296 of the Convention requiring all parties to a dispute before a court or a tribunal referred to in article 287 of the Convention to comply promptly with any decision rendered by such court or tribunal;

13. *Encourages* States parties to the Convention that have not yet done so to nominate conciliators and arbitrators in accordance with annexes V and VII to the Convention, and requests the Secretary-General to continue to update and circulate lists of these conciliators and arbitrators on a regular basis;

V. The Area

14. *Notes with satisfaction* the first examination by the Council of the International Seabed Authority (“the Authority”) of annual reports on prospecting and exploration for polymetallic nodules in the Area submitted by contractors to the Authority;

15. *Notes* the preliminary discussion of issues relating to the regulations for prospecting and exploration for polymetallic sulphides and cobalt-rich crusts in the Area;

16. *Reiterates* the importance of the ongoing elaboration by the Authority, pursuant to article 145 of the Convention, of rules, regulations and procedures to ensure the effective protection of the marine environment, the protection and conservation of the natural resources of the Area and the prevention of damage to its flora and fauna from harmful effects that may arise from activities in the Area;

VI. Effective functioning of the Authority and the Tribunal

17. *Appeals* to all States parties to the Convention to pay their assessed contributions to the Authority and to the Tribunal in full and on time, and appeals also to all former provisional members of the Authority to pay any outstanding contributions;

18. *Calls upon* States that have not done so to consider ratifying or acceding to the Agreement on the Privileges and Immunities of the Tribunal and to the Protocol on the Privileges and Immunities of the Authority.

VII. The continental shelf and the work of the Commission

19. *Notes with satisfaction* the progress in the work of the Commission, especially that the consideration of submissions regarding the establishment of the

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11 SPLOS/25.
12 ISBA/4/A/8, annex.
outer limits of the continental shelf beyond 200 nautical miles has begun with receipt of the first submission, made by the Russian Federation on 20 December 2001;

20. Encourages States parties that are in a position to do so to make every effort to make submissions to the Commission within the time period established by the Convention, taking into account the decision of the eleventh Meeting of States Parties to the Convention;

21. Encourages States and relevant international organizations and institutions to consider developing and making available training courses to assist developing States in the preparation of such submissions, based on the outline for a five-day training course prepared by the Commission in order to facilitate the preparation of submissions in accordance with its Scientific and Technical Guidelines;

22. Approves the convening by the Secretary-General of the twelfth session of the Commission in New York from 28 April to 2 May 2003, followed by two weeks of meetings of a subcommission in the event a submission is made to the Commission, and of the thirteenth session of the Commission from 25 to 29 August 2003;

VIII. Marine science and technology

23. Stresses the importance of the issues of marine science and technology and the need to focus on how best to implement the many obligations of States and competent international organizations under Parts XIII and XIV of the Convention, and calls upon States to adopt, as appropriate and in accordance with international law, such national laws, regulations, policies and procedures as are necessary to promote and facilitate marine scientific research and cooperation, especially those relating to consent for marine scientific research projects as provided for in the Convention;

24. Calls upon States, through national and regional institutions, to ensure that, in respect of marine scientific research conducted pursuant to Part XIII of the Convention in areas over which a coastal State has jurisdiction, the rights of the coastal State under the Convention are respected and that, at the request of the coastal State, information, reports, results, conclusions and assessments of data, samples and research results are made available, and access to data and samples are provided, to that coastal State;

25. Urges relevant bodies of the United Nations system to develop, with the Intergovernmental Oceanographic Commission acting as a focal point and, where appropriate, other competent organizations, appropriate interactions in the field of marine science with regional fisheries organizations, environmental and scientific bodies or regional centres foreseen by Part XIV of the Convention, and encourages States to strengthen existing centres and to establish, where appropriate, such regional centres;

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13 SPLOS/72.
14 CLCS/24.
IX. Maritime safety and security

26. *Urges* all States and relevant international bodies to cooperate to prevent and combat piracy and armed robbery at sea by adopting measures, including those relating to assisting with capacity-building, prevention, reporting and investigating incidents, and bringing the alleged perpetrators to justice, in accordance with international law, and through the adoption of national legislation, as well as through training seafarers, port staff and enforcement personnel, providing enforcement vessels and equipment and guarding against fraudulent ship registration;

27. *Calls upon* States and private entities concerned to cooperate fully with the International Maritime Organization, including by submitting reports on incidents to the organization and by implementing its guidelines on preventing attacks of piracy and armed robbery;

28. *Urges* States to become parties to the Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation and its Protocol, invites States to participate in the review of those instruments by the Legal Committee of the International Maritime Organization to strengthen the means of combating such unlawful acts, including terrorist acts, and further urges States to take appropriate measures to ensure the effective implementation of those instruments, in particular through the adoption of legislation, where appropriate, aimed at ensuring that there is a proper framework for responses to incidents of armed robbery and terrorist acts at sea;

29. *Welcomes* initiatives at the International Maritime Organization to counter the threat to maritime security from terrorism, and encourages States to support this endeavour fully, including at the Conference of Contracting Governments to the International Convention for the Safety of Life at Sea of 1974, held in London from 9 to 13 December 2002;

30. *Once again invites* the International Hydrographic Organization, in cooperation with other relevant international organizations and interested Member States, to provide the necessary assistance to States, in particular to developing countries, in order to enhance hydrographic capability to ensure, in particular, the safety of navigation and the protection of the marine environment;

31. *Notes* the increasing problem of unsafe transport at sea generally, and particularly in the smuggling of migrants;

32. *Urges* Member States to work together cooperatively and with the International Maritime Organization to strengthen measures to prevent the embarkation of ships involved in the smuggling of migrants;

33. *Urges* States that have not yet done so to become parties to the Protocol against the Smuggling of Migrants by Land, Sea and Air, supplementing the United Nations Convention against Transnational Organized Crime, and to take appropriate measures to ensure its effective implementation;

34. *Welcomes* the initiatives by the International Maritime Organization, the Office of the United Nations High Commissioner for Refugees and the International

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16 International Maritime Organization publication, Sales No. 462.88.12E.
17 Resolution 55/25, annex III.
Organization for Migration to address the issue of the treatment of persons rescued at sea;

**X. Capacity-building**

35. **Reiterates its call** in paragraph 8 of its resolution 56/12, in line as well with the Plan of Implementation of the World Summit on Sustainable Development,¹⁰ for reviews by the relevant international organizations and financial institutions and the donor community of the efforts to build capacity in order to identify the gaps that may need to be filled for ensuring consistent approaches, both nationally and internationally, in order to implement the Convention and chapter 17 of Agenda 21:

36. **Calls upon** bilateral and multilateral donor agencies to keep their programmes systematically under review to ensure the availability in all States, particularly in developing States, of the economic, legal, navigational, scientific and technical skills necessary for the full implementation of the Convention and the sustainable development of the oceans and seas nationally, regionally and globally, and in so doing to bear in mind the rights of landlocked developing States;

37. **Calls upon** States and international financial institutions, including through bilateral, regional and international cooperation programmes and technical partnerships, to continue to strengthen capacity-building activities, in particular in developing countries, in the field of marine scientific research by, inter alia, training the necessary skilled personnel, providing the necessary equipment, facilities and vessels, and transferring environmentally sound technologies;

38. **Calls upon** the United Nations Environment Programme, working within the Global Resource Information Database (GRID) system for data and information management, to expand on a voluntary basis the capacity of existing GRID centres to store and handle research data from the outer continental margin, on a basis to be mutually agreed with the coastal State, and complementary to existing regional data centres, giving due regard to confidentiality needs and in accordance with Part XIII of the Convention, and making use of existing data management mechanisms under the Intergovernmental Oceanographic Commission and International Hydrographic Organization, with a view to serving the needs of coastal States, and in particular developing countries and small island developing States, in their compliance with article 76 of the Convention;

39. **Encourages** States to assist developing States, and especially least developed States and small island developing States, on a bilateral and, where appropriate, regional level, in the preparation of submissions to the Commission, including the assessment of the nature of the continental shelf of a coastal State made in the form of a desktop study, and the mapping of the outer limits of its continental shelf;

40. **Requests** the Secretary-General to compile in a uniform format a directory of sources of training, advice and expertise and technological services, including relevant institutions and other sources of technical information and practice, which may contribute to the preparation of such submissions, to be available to Member States and to be posted on the web site of the Division for Ocean Affairs and the Law of the Sea, bearing in mind that an entry in the directory
would not imply official endorsement by the Secretariat of the United Nations of any such sources;

XI. Marine environment, marine resources and sustainable development

41. *Emphasizes once again* the importance of the implementation of Part XII of the Convention in order to protect and preserve the marine environment and its living marine resources against pollution and physical degradation, and calls upon all States to cooperate and take measures, directly or through competent international organizations, for the protection and preservation of the marine environment;

42. *Calls upon* States to continue to prioritize action on marine pollution from land-based sources as part of their national sustainable development strategies and programmes, in an integrated and inclusive manner, as a means of implementing the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities;\[18\]

43. *Also calls upon* States to advance the implementation of the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities and the Montreal Declaration on the Protection of the Marine Environment from Land-based Activities,\[19\] to enhance maritime safety and the protection of the marine environment from pollution and other physical impacts, and to improve the scientific understanding and assessment of marine and coastal ecosystems as a fundamental basis for sound decision-making through the actions identified in the Plan of Implementation of the World Summit on Sustainable Development;\[10\]

44. *Invites* all relevant United Nations agencies to review individually their arrangements for collecting information and data relevant to the marine environment and for ensuring the quality of those data, using to the fullest possible extent what is available at the regional level, and to consider collectively how to ensure that the resulting information and data sets provide, within the constraints of existing resources, an acceptably consistent, coherent and comprehensive basis for international decision-making;


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\[18\] A/51/116, annex II.
Environment Programme pursuant to General Council decision 21/13, and taking into account the recently completed review by the Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection, and to submit these proposals to the General Assembly at its fifty-eighth session for its consideration and decision, including on the convening of a possible intergovernmental meeting;

46. Encourages States to ratify or to accede to international agreements to prevent, reduce, control and eliminate pollution from ships, dumping, the carriage of hazardous and noxious substances, anti-fouling systems on ships and persistent organic pollutants, as well as agreements that provide for compensation for damage resulting from marine pollution;

47. Welcomes the decision of the International Maritime Organization to approve in principle the concept of a voluntary Model Audit Scheme as a means of enhancing the performance of member States in implementing appropriate conventions of the organization relating to maritime safety and the prevention of maritime pollution, and encourages the organization to continue to develop such a scheme;

48. Notes with deep concern the extremely serious damage of an environmental, social and economic nature brought about by oil spills as a result of recent maritime accidents which have affected several countries; and therefore calls upon all States and relevant international organizations to adopt all necessary and appropriate measures in accordance with international law to prevent catastrophes of this kind from occurring in the future;

49. Invites States to cooperate at the regional level to develop regionally shared goals and timetables in pursuance of the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities, including through regional seas conventions;

50. Calls upon States to take measures for the protection and preservation of coral reefs and to support international efforts in this regard, in particular the measures outlined in decision VI/3 adopted by the Conference of the Parties to the Convention on Biological Diversity at its sixth meeting, held at The Hague from 7 to 19 April 2002;

51. Also calls upon States to develop national, regional and international programmes for halting the loss of marine biodiversity, in particular fragile ecosystems;

52. Further calls upon States to accelerate the development of measures to address the problem of invasive alien species in ballast water, and urges the International Maritime Organization to finalize the International Convention on the Control and Management of Ships’ Ballast Water and Sediments;

53. Calls upon States to promote the conservation and management of the oceans in accordance with chapter 17 of Agenda 21 and other relevant international instruments, to develop and facilitate the use of diverse approaches and tools, including the ecosystem approach, the elimination of destructive fishing practices, the establishment of marine protected areas consistent with international law and based on scientific information, including representative networks by 2012 and

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20 See UNEP/CBD/COP/G/20, annex I.
time/area closures for the protection of nursery grounds and periods, proper coastal
and land use and watershed planning, and the integration of marine and coastal areas
management into key sectors;

54. *Welcomes* the work of the Food and Agriculture Organization of the
United Nations, which has special knowledge and expertise in various aspects of
fisheries, in implementing the Code of Conduct for Responsible Fisheries,21 for the
conservation and management of fisheries resources;

55. *Urges* States to take all necessary steps to implement the International
Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated
Fishing, adopted by the Committee on Fisheries of the Food and Agriculture
Organization of the United Nations, including through relevant regional and
subregional fisheries management organizations and arrangements;

56. *Encourages* relevant international organizations, including the Food and
Agriculture Organization of the United Nations, the International Hydrographic
Organization, the International Maritime Organization, the International Seabed
Authority, the United Nations Environment Programme, the World Meteorological
Organization, the Secretariat of the Convention on Biological Diversity and the
United Nations Secretariat (Division for Ocean Affairs and the Law of the Sea),
with the assistance of regional and subregional fisheries organizations, to consider
urgently ways to integrate and improve, on a scientific basis, the management of
risks to marine biodiversity of seamounts and certain other underwater features
within the framework of the Convention;

**XII. Regional cooperation**

57. *Emphasizes* the importance of regional organizations and arrangements
for cooperation and coordination in integrated oceans management, and, where there
are separate regional structures for different aspects of oceans management, such as
environmental protection, fisheries management, navigation, scientific research and
maritime delimitation, calls for those different structures, where appropriate, to
work together for optimal cooperation and coordination;

58. *Takes note* of the Fund for Peace: Peaceful Settlement of Territorial
Disputes established by the General Assembly of the Organization of American
States in 2000 as a primary mechanism, given its broader regional scope, for the
prevention and resolution of pending territorial, land border and maritime boundary
disputes, and also takes note of the Caribbean-focused Trust Fund established by the
Conference on Maritime Delimitation in the Caribbean, held in Mexico City from
6 to 8 May 2002, which is intended to facilitate, mainly as a conduit for technical
assistance, the voluntary undertaking of maritime delimitation negotiations between
Caribbean States, and calls upon States and others in a position to do so to
contribute to these Funds;

59. *Takes note also* of the Pacific Islands Regional Ocean Policy approved at
the thirty-third meeting of the Pacific Island Forum, held in Suva from 15 to
17 August 2002.

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21 International Fisheries Instruments with Index (United Nations publication, Sales
No. E.98.V.II), sect. III.

22 See A/57/331, annex, para. 23.
XIII. Open-ended informal consultative process on oceans and the law of the sea

60. Reaffirms its decision to undertake an annual review and evaluation of the implementation of the Convention and other developments relating to ocean affairs and the law of the sea, welcomes the work of the Open-ended informal consultative process on oceans and the law of the sea (“the Consultative Process”) over the past three years, notes the contribution of the Consultative Process to strengthening the General Assembly’s annual debate on oceans and the law of the sea, and decides to continue with the Consultative Process for the next three years, in accordance with General Assembly resolution 54/33, with a further review of its effectiveness and utility at the sixtieth session;

61. Requests the Secretary-General to convene the meeting of the Consultative Process in New York from 2 to 6 June 2003, and to provide it with the necessary facilities for the performance of its work and to arrange for support to be provided by the Division for Ocean Affairs and the Law of the Sea of the Office of Legal Affairs of the Secretariat, in cooperation with other relevant parts of the Secretariat, including the Division for Sustainable Development of the Department of Economic and Social Affairs, as appropriate;

62. Recommends that, in its deliberations on the report of the Secretary-General on oceans and the law of the sea at its meeting, the Consultative Process organize its discussions around the following areas:
   (a) Protecting vulnerable marine ecosystems;
   (b) Safety of navigation; for example, capacity-building for the production of nautical charts;

as well as issues discussed at previous meetings;

XIV. Inter-agency coordination and cooperation

63. Invites the Secretary-General to establish an effective, transparent and regular inter-agency coordination mechanism on oceans and coastal issues within the United Nations system;

64. Recommends that this new mechanism should have a clear mandate and be established on the basis of principles of continuity, regularity and accountability, taking into account paragraph 49 of Part A of the report on the work of the Consultative Process at its third meeting;

65. Invites Member States and, where appropriate, competent international organizations to identify focal points for the exchange of practical and administrative information concerning law of the sea and ocean issues with the United Nations Secretariat;

66. Requests the Secretary-General to bring the present resolution to the attention of heads of intergovernmental organizations, the specialized agencies and funds and programmes of the United Nations engaged in activities relating to ocean affairs and the law of the sea, drawing their attention to paragraphs of particular relevance to them, and underlines the importance of their constructive and timely input for the report of the Secretary-General on oceans and the law of the sea and of their participation in relevant meetings and processes;
67. **Invites** the competent international organizations, as well as funding institutions, to take specific account of the present resolution in their programmes and activities, and to contribute to the preparation of the comprehensive report of the Secretary-General on oceans and the law of the sea;

### XV. Activities of the Division for Ocean Affairs and the Law of the Sea

68. **Expresses its appreciation** to the Secretary-General for the annual comprehensive report on oceans and the law of the sea, prepared by the Division for Ocean Affairs and the Law of the Sea, as well as for the other activities of the Division, in accordance with the provisions of the Convention and the mandate set forth in resolutions 49/28, 52/26, 54/33 and 56/12;

69. **Requests** the Secretary-General to continue to carry out the responsibilities entrusted to him in the Convention and related resolutions of the General Assembly, including resolutions 49/28 and 52/26, and to ensure that appropriate resources are made available to the Division for Ocean Affairs and the Law of the Sea for the performance of such responsibilities under the approved budget for the Organization;

70. **Invites** Member States and others in a position to do so to support the training activities under the TRAIN-SEA-COAST Programme of the Division for Ocean Affairs and the Law of the Sea;

### XVI. Trust funds and fellowship

71. **Recognizes** the importance of the trust funds established by the Secretary-General pursuant to General Assembly resolution 55/7 for the purpose of assisting States in the settlement of disputes through the Tribunal and of assisting developing countries, in particular the least developed countries and small island developing States, in the preparation of submissions to the Commission in compliance with article 76 of the Convention in defraying the cost of participation of Commission members in the meetings of the Commission, and in attending the meetings of the Consultative Process, as well as other trust funds established for the purpose of assisting States in the implementation of the Convention, and invites States, intergovernmental organizations and agencies, national institutions, non-governmental organizations and international financial institutions, as well as natural and juridical persons, to make voluntary financial or other contributions to these trust funds;

72. **Invites** Member States and others in a position to do so to contribute to the further development of the Hamilton Shirley Amerasinghe Memorial Fellowship Programme on the Law of the Sea established by the General Assembly in its resolution 35/116 of 10 December 1980;

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23 See resolution 55/7, para. 9.
24 Ibid., para. 18.
25 Ibid., para. 20.
26 Ibid., para. 45.
27 These include the Trust Fund of the Authority for the participation of members from developing countries in meetings of the Legal and Technical Commission and the Finance Committee (ISBA/8/A/11).
XVII. Fifty-eighth session of the General Assembly

73. Requests the Secretary-General to report to the General Assembly at its fifty-eighth session on the implementation of the present resolution, including other developments and issues relating to ocean affairs and the law of the sea, in connection with his annual comprehensive report on oceans and the law of the sea, and to provide the report in accordance with the modalities set out in resolutions 49/28, 52/26 and 54/33, and also requests the Secretary-General to make the report available, in its current comprehensive format, at least six weeks in advance of the meeting of the Consultative Process;

74. Decides to include in the provisional agenda of its fifty-eighth session the item entitled “Oceans and the law of the sea”.