



e Law o

Marine Scient

**A revised guide to the imple
provisions of the United
on the Law**



NOTE

Symbols of United Nations documents are composed of capital letters combined with figures. Mention of such a symbol indicates a reference to a United Nations document.

UNITED NATIONS PUBLICATION
Sales No. E.10.V.12

ISBN No. 978-92-1-133695-5
e-ISBN No. 978-92-1-054478-8

Cover photo: © National Oceanic & Atmospheric
Administration (NOAA)

Copyright © United Nations 2010
All right reserved
Printed at the United Nations, New York

Foreword

The 1991 Guide “Marine Scientific Research: A Guide to the implementation of the relevant provisions of the United Nations Convention on the Law of the Sea” advises States of the means by which articles in the Convention could be implemented by coastal and researching States. It has proven useful in implementing the marine scientific research regime as contained in the Convention. However, in almost two decades, several trends have become apparent that suggested a need to reassess the Guide. Of particular importance are trends in marine data acquisition, marine data dissemination, and the emergence of large-scale, international collaborative programmes.

With regard to marine data acquisition, marine scientific research is increasingly conducted from autonomous platforms that can be either fixed or mobile, within the ocean (in-situ) or remote, manned or unmanned, and powered by nature or by humans. One of the key drivers of this autonomous technology has been the increased cost of ship-borne research coupled with the growing demand for continuous, high-resolution, long-term ocean observations for both research and societal needs. Equipment and sensors for marine scientific research have also been improved to enhance both the accuracy and duration of their performance, and to increase the ability to sample in areas of extreme environmental conditions.

With regard to marine data dissemination, an analysis of the trends indicates that intergovernmental and international organizations have facilitated the adoption of standards and protocols to enhance data exchange resulting from marine scientific research. Greater use of national, regional and global oceanographic data centres have likewise become more commonplace.

The establishment and use of these data centers promotes access to large volumes of data, making collaborative efforts to interpret the results of research necessary.

Finally, the continued emergence of large-scale, international collaborative programmes often occurs across many areas within as well as beyond the limits of national jurisdiction. The scope and scale of these activities require the efforts of all States – both developed and developing. Thus, capacity-building and technology transfer are critical to the success of the research objectives of these types of programmes. For instance, the need to better understand the oceans’ role in climate change, as well as the impacts of human activities on ocean resources have driven this need.

This revised Guide takes these trends into account and attempts to inform all those stakeholders involved in marine scientific research of the significance of the relevant provisions of the United Nations Convention on the Law of the Sea.

Part II

Experience of states in implementing the provisions of the convention
related to marine scientific research

3. Suspension or cessation of marine scientific research activities	44
4. Scientific research installations and equipment	44
5. Port calls	44
F. Rights and obligations after the completion of the research	45
1. Provision of preliminary reports and final results	45
2. Access to data and samples	46
3. Assessment of data, samples and research results	46
4. International availability of research results	46
5. Fulfilment of obligations	47
Annexes	49
I. Documents related to Part III of the guide	49
Draft standard form A: Application for consent to conduct marine scientific research	49

withhold its consent if the request is submitted by a qualified institution with a view to pure scientific research into the physical or biological characteristics of the continental shelf, subject to the proviso that the coastal State shall have the right, if it so desires, to participate or to be represented in the research, and that in any event the results shall be published". The elements contained in art. 5 of the 1958 Convention on the Continental Shelf would become the basis for the development of detailed provisions of the regime for marine scientific research contained in the 1982 Convention. Marine scientific research was not specifically addressed in the Convention on the High Seas.²

2. Committee on the Peaceful Uses of the Seabed and the Ocean Floor Beyond the Limits of National Jurisdiction ("Seabed Committee")

3. Discussions on marine scientific research took place within the Seabed Committee to study various aspects of the problem and to indicate practical means to promote international cooperation.³ Several proposals submitted to the Committee contained specific references to marine scientific research.⁴ In 1970, the General Assembly adopted the Declaration of Principles Governing the Seabed and the Ocean Floor, and the Subsoil Thereof, Beyond the Limits of National Jurisdiction, in which States were urged to promote international cooperation in scientific research exclusively for peaceful purposes through international programmes, publication and dissemination of information as well as the strengthening of the research capabilities of developing States.

The Seabed Committee was later tasked with preparing work for the Third United Nations Conference on the Law of the Sea. In its report to the Conference, the Committee had listed scientific research as one of the subjects to be discussed in the Third United Nations Conference on the Law of the Sea, as well as transfer of technology, scientific research on the continental shelf and scientific research in the exclusive economic zone.

² *United Nations Convention on the Law of the Sea*, 1956, vol. II (United Nations publication, Sales No. 1956.V.3.), chapter III, commentary to art. 27, para. 2, p. 278.

³ The General Assembly established the Ad Hoc Committee to Study the Peaceful Uses of the Seabed and the Ocean Floor beyond the Limits of National Jurisdiction by its resolution 2340 (XXII) of

3. **Third United Nations Conference on the Law of the Sea**

4. Substantial developments took place in the Third United Nations Conference on the Law of the Sea, which was held from 1973 to 1982 over eleven sessions. The negotiations were conducted on the basis that nothing was agreed until everything was agreed and therefore the draft text represented a package that had to be accepted in its entirety.⁵ The Third United Nations Conference on the Law of the Sea was confronted with conflicting positions on many issues, inter alia, the distinction between “pure” and “applied” research; freedom of scientific research and coastal States’ control over marine scientific research, in particular, in the exclusive economic zone and on the continental shelf and dispute settlement. The emerging new concept of an exclusive economic zone of 200 nautical miles under the expanded coastal State’s jurisdiction required new responses regarding the rights, obligations and duties of coastal and researching States. A balance needed to be found to accommodate the concerns of major researching States, mostly developed countries and coastal States, most of which were newly independent and developing States. Researching States considered that the limitations to research that would be introduced by the coastal State, would constitute an infringement on the traditional freedom of marine scientific research, which would not only adversely affect the advancement of science, but also deny its potential benefits to all nations in fields such as weather forecasting and the study of effects of ocean currents and the natural forces at work on the ocean floor. On the other hand, many developing States

(the Area)⁷. Part XII on “Protection and preservation of the marine environment”, Part XIV on “Development and transfer of marine technology”, Part XV on “Settlement of disputes” and Annex VIII (“Special arbitration”), are also relevant. These provisions constitute together the first comprehensive set of rules on marine scientific research, which aim to strike a balance between various States’ interests. The core provisions dealing with marine scientific research are to be found in the twenty-eight arts. that constitute Part XIII of the Convention (arts. 238-265).

B. General

forms of utilization of the sea and also utilization of the airspace above the world ocean".¹⁰ With this definition, marine scientific research was recognized as a right "only with regard to research of no direct significance for the exploration and exploitation of marine resources, to be conducted in maritime zones not subject to the jurisdiction of coastal States".¹¹

10. Earlier, in 1974, a draft art. 1 on definitions was proposed as follows: "(a) Marine Scientific Research is any study or investigation of the marine environment and experiments related thereto; (b) Marine Scientific Research is of such a nature as to preclude any clear or precise distinction between pure scientific research and industrial or other research conducted with a view to commercial exploitation or military use".¹² Following this proposal, some concerns were expressed¹³ that it was impossible to make a distinction between pure scientific research and industrial or other research, and that rather "... a fundamental distinction should be made between open basic scientific research, carried out for the benefit of the community, without concern for profit, and industrial research".¹⁴ It was argued that the main difference lay "in the possibility of immediate utilization of industrial research for economic purposes, while scientific research, which did not involve the same restraints on time and efficiency for the sake of specific results, yielded data which were accessible to all, were not of a secret nature, and were public property".¹⁵ The difficulty of clearly distinguishing between research directed towards the exploration and exploitation of marine resources and research not directed towards those purposes became the core issue of the negotiations.

11. By 1975 other formulations were put forward describing marine scientific research as: (a) "any study of, or related experimental work in, the marine environment that is designed to increase man's knowledge and is conducted for peaceful purposes";¹⁶ and (b) "... any study and related experimental work conducted in the marine environment designed to increase mankind's knowledge thereof".¹⁷

¹⁰ Committee on the Peaceful Uses of the Seabed and the Ocean Floor beyond the Limits of National Jurisdiction, vol. 8, Subcommittee III, A/AC.138/SC.III/L.31 (Bulgaria, Poland, Ukrainian SSR and USSR), arts. 1 and 2.

¹¹ United Nations Convention on the Law of the Sea, 1982: *United Nations Law of the Sea Convention*, ed. (Dordrecht, Martinus Nijhoff Publishers, 1991), vol. IV, Part XIII, Section I, para. 238.4, p. 442.

¹² *United Nations Law of the Sea Convention*, vol. III (United Nations publication, Sales No. E.75.V.5), Trinidad and Tobago: draft arts. on marine scientific research, art. 1, paras. (a) and (b), p. 252.

¹³ *Ibid.*, vol. II (United Nations publication, Sales No. E.75.V.4), Third Committee, 7th meeting, paras. 11 and 19.

¹⁴ *Ibid.*, 13th meeting, para. 24.

¹⁵ *Ibid.*, para. 25.

¹⁶ *Ibid.*, vol. IV (United Nations publication, Sales No. E.75.V.10), Bulgaria, Byelorussian Soviet Socialist Republic, Czechoslovakia, German Democratic Republic, Hungary, Mongolia, Poland, Ukrainian Soviet Socialist Republic and Union of Soviet Socialist Republics: draft arts. on marine scientific research, arts. 1 and 2, para. 4.

¹⁷ *Ibid.*, Colombia, El Salvador, Mexico and Nigeria: draft arts. on marine scientific research, arts. 1 and 2.

-
- (c) States and competent international organizations are also required to cooperate through the conclusion of bilateral and multilateral agreements, to create favourable conditions for the conduct of marine scientific research in the marine environment and to integrate the efforts of scientists in studying the essence of phenomena and processes occurring in the marine environment and interrelations between them (art. 243);
 - (d) States and competent international organizations are also required to make available by publication and dissemination through appropriate channels information on proposed major programmes and their objectives, as well as knowledge resulting from marine scientific research (art. 244, para. 1);
 - (e) States, both individually and in cooperation with other States and with competent international organizations, shall actively promote the flow of scientific data and information and the transfer of knowledge resulting from marine scientific research, especially to developing States, as well as the strengthening of the autonomous marine scientific research capabilities of developing States, through, inter alia, programmes to provide adequate education and training of their technical and scientific personnel (art. 244, para. 2).

21. Other relevant provisions in other parts of the Convention include art. 143, para. 3, which encourages the promotion of international cooperation in relation to marine scientific research in the Area. Article 123 of the Convention provides that States bordering enclosed and semi-enclosed seas should cooperate with each other in the exercise of their rights and in the performance of their duties under the Convention. They are required to endeavour, directly or through an appropriate regional organization to, inter alia, coordinate their scientific research policies and undertake joint programmes of scientific research in the enclosed or semi-enclosed sea, and invite, as appropriate, other interested States or international organizations to cooperate to this end.

22. Also particularly relevant to marine scientific research is art. 197 of the Convention, which encourages States to cooperate on a global and, as appropriate, on a regional basis, directly or through competent international organizations, in formulating and elaborating international rules, standards and

for the protection and preservation of the marine environment, taking into account characteristic regional features (see also section H of the present Part).

4. Promotion and facilitation of marine scientific research

23. Statute on Innovation in Government that came into effect p. 1000000

D. Marine scientific research in the exclusive economic zone and on the continental shelf

1. Overview of rights and duties of the coastal State relating to the granting and withholding of consent

27. Coastal States, in the exercise of their jurisdiction, have the right to regulate, authorize and conduct marine scientific research in their exclusive economic zone and on their continental shelf. Research in those maritime areas may only be conducted with the consent of the coastal State (art. 246, paras. 1 and 2).

28. In normal circumstances, a coastal State is under a duty to grant its consent to marine scientific research to be carried out in accordance with the Convention exclusively for peaceful purposes and in order to increase scientific knowledge of the marine environment for the benefit of all mankind (art. 246, para. 3).²⁴

29. According to art. 246, para. 5, a coastal State may, in its discretion,

areas are occurring or will occur within a reasonable period of time. Coastal States are required to give reasonable notice of the designation of such areas, as well as any modifications thereto, but shall not be obliged to give details of the operations therein (art. 246, para. 6).

32. The above provision is without prejudice to the coastal States' rights over the continental shelf as established in art. 77 according to which the rights of the coastal State over its continental shelf do not depend on occupation, effective or notional, or on any express proclamation (art. 246, para. 7).

**b. Marine scientific research projects involving drilling,
use of explosives or introduction of harmful substances**

33. Research involving drilling into the continental shelf and the use of explosives can be regarded as examples of marine scientific research activities which can provide information of direct significance for the exploration of natural resources. In this respect, para. 5 (b) may be considered a further specification of para. 5 (a). In addition, drilling and the use of explosives have a common aspect with the third activity referred to in the subparagraph, namely

37. The coastal State may also exercise its discretion to withhold consent if the researching State or competent international organization has outstanding obligations to that coastal State from a prior research project. It may be assumed that the coastal State may do so only when each outstanding obligation becomes overdue.

2. Procedure for requesting and granting consent

a. Request by the researching State or competent international organization to conduct marine scientific research

38. At least six months in advance of the expected starting date of the research activities, a full description of the research project must be provided to the coastal State in accordance with art. 248, as follows:

- (a) the nature and objectives of the project;
- (b) the method and means to be used, including name, tonnage, type and class of vessels and a description of scientific equipment;
- (c) the precise geographical areas in which the project is to be conducted;
- (d) the expected date of first appearance and final departure of the research vessels, or deployment of the equipment and its removal, as appropriate;
- (e) the name of the sponsoring institution, its director, and the person in charge of the project; and
- (f) the extent to which it is considered that the coastal State should be able to participate or to be represented in the project.

39. All communications between the researching State or competent international organization and the coastal State shall be in writing.

international organization to know at an early stage whether the research will be allowed to proceed. The mere absence of diplomatic relationships between the coastal and researching States does not necessarily mean that the situation is “not normal” (art. 246, para. 4).

42. The consent of the coastal State to a request to conduct marine scientific research in its exclusive economic zone or on its continental shelf can be granted either expressly (art. 246) or implicitly (art. 252).

43. Under art. 252 of the Convention, the marine scientific research project may begin six months after the date upon which the information required under art. 248 was provided by the researching State or competent international organization to the coastal State, unless the coastal State has informed the researching State or competent international organization within four months of the receipt of the communication that it does not grant its consent, or that the information given does not conform to the manifestly evident facts, or that the coastal State requires more, or that outstanding obligations exist with respect to a previous marine scientific research project carried out by that State or organization. If the coastal State does not respond at all, consent may be presumed.

44.uu

47. Any dispute over whether a coastal State has inappropriately withheld its consent under art. 246 is subject to conciliation and the procedure set out in Annex V to the Convention (see section J of the present Part).

3. Conduct during marine scientific research

a. Participation or representation by the coastal State

48. When undertaking marine scientific research in the exclusive economic zone or on the continental shelf of a coastal State, researching States and competent international organizations are subject to a series of obligations set out in art. 249. In particular, they are required, *inter alia*, to ensure the right of the coastal State to participate in or be represented in the project, especially on board research vessels and other craft or scientific research installations, when practicable, without payment of any remuneration to the scientists of the coastal State and without obligation to contribute towards the costs of the project.

b. Rights of neighbouring landlocked and geographically disadvantaged States

49. It should be noted that certain rights for information and participation are also granted to neighbouring landlocked and geographically disadvantaged States with regard to marine scientific research conducted in the exclusive economic zone or the continental shelf of the coastal State, as set out in art. 254.

c. Suspension or cessation of marine scientific research activities

50. Article 253 provides that a coastal State has the right to require the suspension of marine scientific research activities in progress within its exclusive economic zone or on its continental shelf either if they are not being conducted in accordance with the information communicated according to

4. Rights and obligations after the completion of the research

52.

as marine scientific research on the seabed and subsoil was the subject of discussions at the third United Nations Conference on the Law of the Sea.²⁶

1. Marine scientific research in the high seas and water column beyond the exclusive economic zone

55. All States, irrespective of their geographical location, and competent international organizations have the right to conduct marine scientific research in the water column beyond the limits of the exclusive economic zone (art. 257).²⁷ The reference to “all States, irrespective of their geographical location” ensures that not only coastal States, but also landlocked and other geographically disadvantaged States, have the right to conduct marine scientific research in the high seas.

56. Freedom of scientific research is expressly referred to in the Convention as a freedom of the high seas (art. 87). While art. 257 uses the term “marine scientific research”, art. 87 uses the term “scientific research”.²⁸ Under art. 87, the freedom of scientific research is subject to Part VI on the continental shelf, and Part XIII on marine scientific research. This acknowledges the fact that the continental shelf, over which a coastal State has sovereign rights, may extend beyond 200 nautical miles from the baselines. Also a coastal State may choose not to establish any exclusive economic zone, leaving all superjacent waters as high seas. Freedom of scientific research is to be exercised with due regard for the interests of other States in their exercise of the freedoms of the high seas, and also with due regard for the rights related to activities in the Area (art. 87).²⁹

The freedom envisioned in art. 87 is not limited to marine scientific research but also extends to such activities as hydrographic surveys.

²⁶ The text agreed upon in informal meetings of the third Committee during the second session read: “In the International area, all States, whether coastal or land-locked, and appropriate international organizations have the freedom to carry out marine scientific research related to the seabed, subsoil and superjacent waters.” See “CRP/Sc.Res/40, art. 7”, in *Yearbook of International Law*, vol. X, Renate Platzöder, ed. (Dobbs Ferry, NY, Oceana Publications, 1986), pp. 325-326; see also “CRP/Sc.Res./39, art. V”, *ibid.*, pp. 323-324; and “CRP/Sc.Res./40/rev.1, art. 4”, *ibid.*, p.327. Later alternative formulations are contained in “Texts submitted to or elaborated by the informal meetings of the third Committee on items 13 and 14 (marine scientific research and development and transfer of technology)”, CRP/Sc.Res/41, *ibid.*, pp.328-337.

57. Of particular relevance to marine scientific research undertaken in the high seas, are the requirements under arts. 242 to 244 related, respectively, to the promotion of international cooperation, the creation of favourable conditions and publication and dissemination of information and knowledge.

2. Marine scientific research in the Area

58. All States, irrespective of their geographical location, and competent international organizations have the right to conduct marine scientific research in the Area (art. 256),

61. States parties to the Convention are required by art. 143, para. 3, to promote international cooperation in marine scientific research by:

(a) Participating in international programmes and encouraging

markings indicating the State of registry or the international organization to which they belong, and have adequate internationally agreed warning signals to ensure safety at sea and the safety of air navigation (art. 262).

A

C

69.

75. Art. 200 requires cooperation among States, directly or through competent international organizations, for the purpose of promoting studies, undertaking scientific research programmes, and encouraging the exchange of information and data about pollution of the marine environment. That article also requires States to participate actively in regional and global programmes to acquire knowledge for the assessment of the nature and extent of pollution,³⁵ exposure to it, and its pathways, risks and remedies. Article 201 requires States to cooperate in establishing appropriate scientific criteria for the development of rules, standards and recommended practices and procedures for the prevention, reduction and control of pollution of the marine environment. In the context of international cooperation in marine scientific research, States are also required to provide other States with a reasonable opportunity to obtain from them, or with their cooperation, information necessary to prevent and

79. According to art. 263, States and competent international organizations involved in marine scientific research, whether undertaken by them or on their behalf, are:

- (a) Responsible for ensuring that it is conducted in accordance with the Convention;
- (b) Responsible and liable for the measures they take in contravention of the Convention in respect of marine scientific research by other States, their natural or juridical persons or by competent international organizations, and shall provide compensation for damage resulting from such measures; and
- (c) Responsible and liable pursuant to art. 235 for damage caused by pollution of the marine environment arising out of marine scientific research undertaken by them or on their behalf.

80. Article 235, para. 2, in Part XII requires States to ensure that recourse is available in accordance with their legal systems for prompt and adequate compensation or other relief in respect of damage caused by pollution of the marine environment by natural or juridical persons under their jurisdiction.

81. Article 235, para. 3, further requires States to cooperate in the implementation of existing international law and the further development of international law relating to responsibility and liability for the assessment of and compensation for damage caused by pollution of the marine environment and the settlement of related disputes, as well as, where appropriate, development of criteria and procedures for payment of adequate compensation, such as compulsory insurance or compensation funds.

82. Article 304 provides that the provisions of the Convention with regard to responsibility and liability are without prejudice to the application of existing rules and the development of further rules regarding responsibility and liability under international law.

J. Settlement of disputes

83. Due to the fact that marine scientific research can be conducted in areas within national jurisdiction, there is potential for a dispute between the rights and duties of the coastal State and those of the researching State, with regard to, for example, issues of consent (express or implied) and the conduct of the researching State during and after the research. Likewise, disputes could also possibly arise with respect to the conduct of marine scientific research in the high seas and the Area and other activities occurring in those areas.

84.

Part II



108.

In recognition of the vulnerability of some marine ecosystems to disturbances resulting from marine scientific research, the scientific community has voluntarily established various codes of conduct to minimize their impact.

109. Environmental impact assessments may be required under national regulations (see para. 143). An example of current State practice⁵¹ relates to the undertaking of marine scientific research in designated special areas of conservation, a form of marine protected area. As the incidence of the designation of offshore marine protected areas by coastal States is on the increase, researching States should bear constraints in mind when conducting marine scientific research.

110. A number of area-based management tools have been put in place at the regional and national levels with a view to minimizing the impacts of human activities on the marine environment. These include marine protected areas,

112.

A review of the practice of coastal States that have granted consent to conduct marine scientific research indicates that orders of suspension or cessation were a very rare occurrence.⁵⁵

4. Rights and obligations after the completion of the research

113. A challenge encountered by the coastal State relates to appropriate storage and handling of research results. Also, while data delivery and management systems have made marine scientific research data more readily available, the requisite technology in order to access and assess this data, samples and research results may not be available to the coastal State.

114. Article 249 requires the researching State to share samples, data, and analyses, with the coastal State. Experience shows that, when implementing this obligation, the specific modalities for this sharing have been dealt with bilaterally, taking particularly into account the intellectual property aspects that may be involved.

D. Marine scientific research beyond areas of national jurisdiction

115. While there is not much information about State practice regarding marine scientific research beyond areas of national jurisdiction, it is noted that the financial costs of undertaking marine scientific research in remote locations of the high seas and the Area can be a constraint, in particular for developing countries.

116. *Access to information*. In practice, data acquired from marine scientific research conducted in the high seas is made available via international data repositories and international journals, both in print and on-line. Some of these databases include the Ocean Biogeographic Information System, Biocean, the databases of the Census of Marine Life, RIDGE Multibeam Synthesis, and Petrological Database of the Ocean Floor.

117. *Standardization of data*. Activities of the workshops of the Authority on the scientific and technical nature of its work relating to the deep seabed mining of minerals, its work on the environmental impacts of such exploration and on how the data and information collected by the various scientific institutions can be standardized and shared, serve as a catalyst for

⁵⁵ IOC Questionnaire No. 3", IOC/ABE-LOS VIII/8.

collaboration and exchange of information among the scientific community.⁵⁶ With a view to further promoting marine scientific research in the Area, the International Seabed Authority established an Endowment Fund in 2006. The Fund promotes and encourages the conduct of collaborative marine scientific research in the Area by supporting the participation of qualified scientists and technical personnel from developing countries in marine scientific research programmes and activities, and by providing opportunities to these scientists to participate in relevant initiatives.⁵⁷ To date, three collaborative marine scientific research activities have been undertaken by the Authority and its partners to predict and manage the impacts of deep seabed mining, and increase international knowledge of the deep seabed environment.⁵⁸

E. Scientific research installations and equipment

118.

in 2003. The guiding principle of the CGTMT is that the transfer of marine technology must always be conducted based on fair and reasonable terms and conditions and should enable all parties concerned to benefit on an equitable basis from developments in marine science related activities, particularly those aimed at stimulating the social and economic contexts in developing countries.⁶⁶

126. The Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organization has, through its capacity-building development programme, established a global project to strengthen marine science institutes at multiple levels through training in leadership, fundraising and technology transfer. One resource developed by the Intergovernmental Oceanographic Commission is “Ocean-Expert”, a database of scientific and technical expertise.⁶⁷ Another resource is the clearing-house mechanism to assist interested developing and developed countries that are seeking appropriate partnerships for technology transfer.⁶⁸

127. A review of the Intergovernmental Oceanographic Commission’s Member States practice⁶⁹ indicates that States usually have institutions for marine scientific research/transfer of marine technology, but rarely have a single focal point for the purposes of transfer of marine technology. The Intergovernmental Oceanographic Commission’s regional subsidiary bodies have sometimes been used for the purposes of transfer of marine technology. Limited human and financial resources pose constraints to the transfer of marine technology for both the supplier and the receiver. Some additional difficulties relate to issues of language and customs limitations. Partnerships and joint ventures are the preferred form of transfer of marine technology for both suppliers and recipients.

G. Settlement of disputes

128. At the time of preparation of this Guide, there had not been any recourse to the procedures for the settlement of disputes under Part XV of the Convention as regards marine scientific research.

⁶⁶ IOC Resolution XXII-12 and IOC-XXII/2 Annex 12 Rev.

⁶⁷ See www.iode.org/.

⁶⁸ See <http://ioc3.unesco.org/abelos>.

⁶⁹ IOC Questionnaire No. 3, document IOC/ABE-LOS VIII/8.

Part III

Practical guidance on the implementation

B. e planning stage

131. During the early planning stages of a marine scientific research project, it is advisable to consider a number of factors including the following:

- (a) Specificities of the area(s) of planned research;
- (b) Overall cooperation with the coastal State;
- (c) Outstanding obligations from previous research.

132. States, when planning marine scientific research or when reviewing a marine scientific research application, should take into account rules established under national legislation or other relevant international conventions. When there is any question regarding the applicability or implementation of such rules, clarification should be obtained through appropriate official channels.

133. It is suggested that the following additional considerations related to the requirements under the consent regime for marine scientific research should also be borne in mind:

- (a) Timely efforts should be made to obtain the consent of the coastal State(s) concerned;
- (b) Efforts should be made to ensure, that no outstanding obligations exist from previous research projects conducted in the waters of the coastal State concerned, by scientific institutions located in the same State as the institution planning the project (see paras. 37 and 43);

137. It would also be useful for the researchers to take into account the possibility of an extended continental shelf in the area envisaged for the research project (see para. 56).

138.  fÃ

D. Response by the coastal State

1. General

147. It is desirable that all coastal States consider, as far as feasible, centralizing and simplifying the processing of applications for consent, for example by identifying a specific focal point for such process. It is recommended that the coastal State consider elaborating a manual on procedures for the application for marine scientific research projects, and as appropriate, making it publicly available.

148. Coastal States are encouraged to consider the use of draft standard form A and draft standard form B (see Annex I to the present guide) to provide the granting of the consent by the coastal State. These forms could be adapted to reflect requirements under national laws and regulations adopted in accordance with the Convention (see paras. 131-138)

2. Request for

4. Discretionary power to withhold consent

152. Apart from the exceptional situations in which the coastal State may refuse consent, the coastal State also has the discretion to withhold consent for the conduct of marine scientific research in the four situations specified in art. 246, para. 5, of the Convention (see paras. 29-37). The researching State and the coastal State are encouraged to consult among themselves in cases where consent is withheld.

153. With respect to marine scientific research conducted by a State or international organization having outstanding obligations as referred to in art. 246, para. 5 (d), it would be important for those States in which there are a number of institutions engaged in marine scientific research in the exclusive economic zone or on the continental shelf of another State to centrally monitor and ensure compliance by their research institutions with the conditions laid down in art. 249 (see para. 52).

5. Conditions imposed when granting consent

154. In order to ensure full compliance by researching States with all conditions required by the coastal State when granting consent in accordance with art. 249, coastal States are encouraged to inform researching States of those conditions.

6. Additional information of importance to the researching State

155. It is recommended that the coastal State inform the researching State of areas which are, inter alia, of ecological and/or cultural significance, for example those that have been identified as marine protected areas or, as appropriate, particularly sensitive sea areas and any prerequisites for research to be conducted within such areas or measures applicable to research vessels. It is also suggested that the coastal State inform the researching State of the specific coordinates of those areas.

7. Research by or under the auspices of international organizations

156. States are encouraged to use the available "Procedure for the Application of art. 247 of the Convention" of the Intergovernmental Oceanographic Commission (see para. 103), taking particularly into account the opportunity that such procedure provides to the coastal State to be actively involved in the project.

E. Conduct during marine scientific research

1. Participation by the coastal State

157. The concepts of “participation” and “representation” have not been defined in the Convention. Presumably, “participation” means that one or more scientists from the coastal State work together on the project with the scientists from the researching State or competent international organization. It could even be possible that the coastal State participates in the project with its own research platform. “Representation” would refer to the situation in which one or more observers appointed by the coastal State are present on board the research platform during the project.

158.

162. The establishment of good communications between the coastal and the researching States will allow changes to be dealt with in a smooth manner. In general, the duration of the lead time for processing requests should not be affected by major changes, unless they involve activities falling under art. 246, para. 5, in which case a new lead time may be required.

3. Suspension or cessation of marine scientific research activities

163. When a coastal State requires the suspension or cessation of a marine scientific research project on the basis of non-compliance with art. 248, it is encouraged to provide information to the researching State regarding the reasons for suspension or cessation.

4. Scientific research installations and equipment

164. In the deployment of and the creation of safety zones around marine scientific research installations, States are encouraged to take note of the General

F. Rights and obligations after the completion of the research

1. Provision of preliminary reports and final results

169. Although art. 249, para. 1 (b), provides that preliminary reports and final results need to be formally provided to the coastal State only if it has specifically requested them, it is advisable to make the submission of such reports and results to the coastal State a standard/systematic practice. With regard to the requirement under the Convention to provide the coastal State with preliminary reports as soon as practicable after the completion of the research, the compliance by the researching State with this requirement may be facilitated by the provision by the coastal State of additional details to be contained in the preliminary reports (see draft standard forms A, B and C).

170. No fixed time-limits are set in the Convention for providing the preliminary reports, final results and conclusions of the research to the coastal State. The coastal State, when it gives its consent, could suggest a possible timeframe for the transmission of preliminary reports. Although the time span between the end of the cruise and the availability of the final results can vary substantially depending upon the nature of the research, all efforts should be made to supply the final results and conclusions to the coastal State as soon as they become available. This point should be provided for within the preliminary reports.

171. The report should be transmitted through official channels to the coastal State's scientists involved. It is suggested that it may be much easier and more reliable to provide reports in an accessible electronic copy as opposed to sending sometimes long and complex documents by fax or in hard copy. In addition, consideration should be given to providing the coastal State with reports written in a language which can be read by scientists of the coastal State. For the preliminary report, a draft model form is attached as draft standard form C in Annex I, to the present guide.

172.
research as 0000 684 6 draft MC

national level rests with the coastal State, unless otherwise expressly indicated by the coastal State in the authorization. Enhancing domestic communication networks between those responsible for research authorizations and those within other national ministries, academia and interest groups, may enhance the utility of the outcomes of the research.

2. Access to data and samples

173. In order to retain the results of marine scientific research data in a manner that enables its easy retrieval, a careful cataloguing of research results is advisable. To this end, oceanographic data centers with a common set of data and metadata standards may provide a useful tool if the concerned States so decide.

174. Deployers of Argo floats should take particularly into account that in accordance with the Argo Guidelines (see para. 119), data obtained by the Argo Programme floats in the exclusive economic zone would be made freely available to all States, except where such data is of direct significance for the exploration and exploitation of natural resources, whether living or non-living, and a request for non-distribution has been made by the coastal State concerned.

3. Assessment of data, samples and research results

175. Although it is preferable for the coastal State to indicate a request for assessment of data, samples and research results or assistance in doing so (art. 249, para. (d)) when giving consent for the research project, it may still decide to make such a request a *quod* receipt of the final results and conclusions of the research.

4. International availability of research results

176. To facilitate international availability of research results (art. 249, para. 1(e)) and access, and appropriate dissemination of data, the researching State should be encouraged to submit data to data centers affiliated with the International Oceanographic Data and Information Exchange of the Intergovernmental Oceanographic Commission.⁷²

⁷² See www.iode.org.

177. e national and regional marine scienti c and technological centers



4.4 Other craft in the project, including its use:

--

4.5 Particulars of methods and scientific instruments

Types of samples and measurements:	Methods to be used:	Instruments to be used:

4.6 Indicate nature and quantity of substances to be released into the marine environment:

--

4.7 Indicate whether drilling will be carried out. If yes, please specify:

--

4.8 Indicate whether explosives will be used. If yes, please specify type and trade name, chemical content, depth of trade class and stowage, size, depth of detonation, frequency of detonation, and position in latitude and longitude:

--

5. Installations and Equipment

Details of installations and equipment (including dates of laying, servicing, method and anticipated timeframe for recovery, as far as possible exact locations and depth, and measurements):

--

6. Dates

6.1 Expected dates of first entry into and final departure from the research area by the research vessel and/or other platforms:

--

6.2 Indicate if multiple entries are expected:

--

7. Port calls

7.1 Dates and names of intended ports of call:

7.2 Any special logistical requirements at ports of call:

7.3 Name/address/telephone of shipping agent (if available):

8. Participation of the representative of the coastal State

8.1 Modalities of the participation of the representative of the coastal State in the research project:

8.2 Proposed dates and ports for embarkation/disembarkation:

9. Access to data, samples and research results

9.1 Expected dates of submission to coastal State of preliminary report, which should include the expected dates of submission of the data and research results:

9.2 Anticipated dates of submission to the coastal State of the final report:

9.3 Proposed methods:



Draft standard form B

Consent to conduct marine scientific research

(Complimentary opening)

....and has the honour to refer to (request document from Embassy) dated _____ regarding the proposed marine scientific research of (chief scientist). The Ministry is pleased to advise that approval has been given for the marine scientific research project (reference number of project) proposed in the (Territorial Sea/ Exclusive Economic Zone/Continental Shelf) of (coastal State) from (dates) to (dates) inclusive, subject to the conditions being met as specified below.

- Participation of (name and details of coastal State participant(s)).
- Notifications regarding entry into and departure from the (Territorial Sea/ Exclusive Economic Zone/Continental Shelf), port arrivals and departures, and daily position reports, should be transmitted to (provide channels through which such notifications are to be transmitted).
- Provision of preliminary report(s) within the time frame provided on application _____
- Access to all data and samples derived from the marine scientific research project, including provision of data to participant(s).
- Provision of data which may be copied and samples which may be divided and copies of reports prepared, or alternatively details of where such data and reports can be obtained will be submitted to _____ in a form acceptable to (coastal State) as soon as possible but preferably no later than a 12-month period after the conclusion of the proposed research programme. The information will be treated as public information and may be made available via the internet unless another arrangement is reached with the (coastal State) government.
- Assessment of data, samples and research results /or provision of assistance in such assessment or interpretation.
- Compliance with the attached guidelines (safety, acoustics, map of protected areas, list of relevant endangered species under CITES, etc.).

-
- Changes to the authorized research programme shall be directed to _____ (name, phone, email of Marine Scientific Research Office or focal point).
 - Removal of the scientific research installations or equipment once the research is completed.
 - Final report will be provided within a reasonable time-frame.

(Complimentary close)

Date

Diplomatic Seal

Dra standard form C

Preliminary cruise report

Annex II
Extracts from the United Nations
Convention on the Law of the Sea

Part xiii. Marine scientific research

Section 1. General provisions

Article 238

Right to conduct marine scientific research

All States, irrespective of their geographical location, and competent international organizations have the right to conduct marine scientific research subject to the rights and duties of other States as provided for in this Convention.

Article 239

Development and conduct of marine scientific research

States and competent international organizations shall promote and facilitate the development and conduct of marine scientific research in accordance with this Convention.

Article 240

G

.....

Marine scientific research activities shall not constitute the legal basis for any claim to any part of the marine environment or its resources.

Section



6. Notwithstanding the provisions of para. 5, coastal States may not exercise their discretion to withhold consent under subpara. (a) of that paragraph in respect of marine scientific research projects to be undertaken in accordance with the provisions

4. Following notification by the coastal State of its decision to order suspension or cessation, States or competent international organizations authorized to conduct marine scientific research activities shall terminate the research activities that are the subject of such a notification.

5. An order of suspension under para. 1 shall be lifted by the coastal State and the marine scientific research activities allowed to continue once the researching State or competent international organization has complied with the conditions required under arts. 248 and 249.

1. States and competent international

A . . . 256

A

All States, irrespective of their geographical location, and competent international organizations have the right, in conformity with the provisions of Part XI, to conduct marine scientific research in the Area.

A . . . 257

All States, irrespective of their geographical location, and competent international organizations have the right, in conformity with this Convention, to conduct marine scientific research in the water column beyond the limits of the exclusive economic zone.

Section 4. Scientific research installations or equipment in the marine environment

A . . . 258

D

Deployment and use of any type of scientific research installations or equipment in any area of the marine environment shall be subject to the same conditions as are prescribed in this Convention for the conduct of marine scientific research in any such area.

A . . . 259

.

The installations or equipment referred to in this section do not possess the status of islands. They have no territorial sea of their own, and their presence does not affect the delimitation of the territorial sea, the exclusive economic zone or the continental shelf.

A . . . 260

.

Safety zones of a reasonable breadth not exceeding a distance of 500 metres may be created around scientific research installations in accordance with the relevant provisions of this Convention. All States shall ensure that such safety zones are respected by their vessels.

A . . . 261

.

Deployment and use of any type of scientific research installations or equipment shall not constitute an obstacle to established international shipping routes.

A 262

Installations or equipment referred to in this section shall bear identification markings indicating the State of registry or the international organization to which they belong and shall have adequate internationally agreed warning signals to ensure safety at sea and the safety of air navigation, taking into account rules and standards established by competent international organizations.

Section 5. Responsibility and liability

A 263

1. States and competent international organizations shall be responsible for ensuring that marine scientific research, whether undertaken by them or on their behalf, is conducted in accordance with this Convention.

2. States and competent international organizations shall be responsible and liable for the measures they take in contravention of this Convention in respect of marine scientific research conducted by other States, their natural or juridical persons or by competent international organizations, and shall provide compensation for damage resulting from such measures.

3. States and competent international organizations shall be responsible and liable pursuant to art. 235 for damage caused by pollution of the marine environment arising out of marine scientific research undertaken by them or on their behalf.

Section 6. Settlement of disputes and interim measures

A 264

Disputes concerning the interpretation or application of the provisions of this Convention with regard to marine scientific research shall be settled in accordance with Part XV, sects. 2 and 3.

A 265

Annex III

List of participants in the meeting of the group of experts on marine scientific research, New York, 20 to 24 April 2009

Prof. Etty Roesmaryati Agoes

Member, National Maritime Council of Indonesia
Professor of International Law
Padjadjaran University, Bandung
Indonesia
E-mail: eragoes@yahoo.com

Dr. Ehrlich Desa

Head of IOC Capacity-Building Section

Marine Science and Technology Centre for the Eastern Indian Ocean (MSTEC-EO), PO Box 100, 10000, Jakarta, Indonesia
E-mail: ehdesa@iio.org

Dr. Caroline Dublin-Green

Former Director
Nigerian Institute for Oceanography and Marine Research
Lagos
Nigeria
E-mail: Carolsoladg@yahoo.com

Dr. Kari Elsa Ellingsen

Research Scientist
Norwegian Institute for Nature Research
Tromsø
Norway
E-mail: kari.ellingsen@nina.no

Mr. Ariel Walter Gonzalez

Counsellor
Permanent Representation of Argentina before the United Nations
Organizations in Vienna
Argentina
E-mail: awg@mrecic.gov.ar

Dr. Lorna Inniss

Deputy Director ~~UNEP/WHO/TUI/TUI~~

Dr. Paul Snelgrove

Committee Chair

Census of Marine Life (CoML)

Boreal and Cold Ocean Systems Ocean Sciences Centre and Biology Department

Memorial University of Newfoundland

St. John's NL

Canada

E-mail: psnelgro@mun.ca

Prof. Bjørn Sundby

Past SCOR President

Scientific Committee on Oceanic Research (SCOR)

Department of Earth & Planetary Sciences

McGill University

Montreal

Canada

E-mail: bjorn.sundby@mcgill.ca

Ms. Elizabeth Tirpak

Foreign Affairs Officer

Ocean Science Policy & Research Clearances

United States Department of State

Washington

U.S.A.

E-mail: tirpakej@state.gov

Dr. Elvira Velasquez

Minister

Peruvian Consul in Loja, Ecuador

Peru