

INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION COMMISSION OCÉANOGRAPHIQUE INTERGOUVERNEMENTALE COMISIÓN OCEANOGRÁFICA INTERGUBERNAMENTAL МЕЖПРАВИТЕЛЬСТВЕННАЯ ОКЕАНОГРАФИЧЕСКАЯ КОМИССИЯ

اللجنة الدولية الحكومية لعلوم المحيطات

政府间海洋学委员会

UNESCO – 7 Place de Fontenoy - 75352 Paris Cedex 07 SP, France http://ioc.unesco.org - contact phone: +33 (0)1 45 68 03 18 E-mail: v.ryabinin@unesco.org

IOC Circular Letter No 2938

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IOC/VR/EH/FC 15 March 2023

To : Official National Coordinating Bodies for liaison with the IOC

Cc.: Permanent Delegations to UNESCO of IOC Member States National Commissions for UNESCO in IOC Member States

IOC Officers

GOOS National Focal Points

Chairs of GOOS Steering Committee

Subject: Member State feedback regarding sustained ocean observations

in Areas under their National Jurisdiction

Action required:

(i) Provide information on experiences regarding sustained ocean observations in Areas under their National Jurisdiction through responding to the 7 questions noted in Annex 1 by 15 April 2023

The IOC Executive Council at its Fifty-third Session adopted <u>Decision IOC/EC-55/3.4</u>, pertaining to Ocean Observations in Areas under National Jurisdiction. This decision requested the *Executive Secretary to invite Member States to provide information on their experiences regarding sustained ocean observations in Areas under their National Jurisdiction including on the issues identified by GOOS through the Expert Workshop on "Ocean Observations in Areas under National Jurisdiction" (OONJ, GOOS Report, 246).*

In the same decision, the IOC Executive Council also invited GOOS to provide detailed information on the issues regarding sustained ocean observations in areas under national jurisdiction identified in the report of the OONJ Experts Workshop. A survey to the global ocean observing networks has been undertaken to receive such information.

The above-mentioned OONJ workshop was organized by GOOS in February 2020, following several requests from the implementers of global ocean observing networks to consider the many challenges of ocean observations in coastal States' Exclusive Economic Zones (EEZs). The workshop discussed several 'real life' issues that the global ocean observing networks face in taking and sustaining observations, in particular in the coastal States' EEZs. The workshop also discussed the value of observations to coastal States, and potential concerns of coastal States regarding sustained ocean observations in areas under their national jurisdiction. The OONJ Workshop developed a

Chairperson

Mr Ariel Hernan TROISI Technical Secretary Navy Hydrographic Service Av. Montes de Oca 2124 C1270ABV Buenos Aires ARGENTINA

Executive Secretary

Dr Vladimir RYABININ Intergovernmental Oceanographic Commission — UNESCO 7 Place de Fontenoy 75352 Paris Cedex 07 SP FRANCE

Vice-Chairpersons

Dr Marie-Alexandrine SICRE
Directrice de Recherche
Centre national de la recherche scientifique
(CNRS)
3 rue Michel Ange
75016 Paris
FRANCF

Dr Alexander FROLOV Assistant to the President National Research Center "Kurchatov Institute" Academika Kurchatova pl., 1 123182 Moscow RUSSIAN FEDERATION Mr Frederico Antonio SARAIVA NOGUEIRA Navy Captain (Ret) Directorate of Hydrography and Navigation Rua Barao de Jaceguai S/N 24048-900 Niterói BRAZIL

Dr Srinivasa Kumar TUMMALA Director Indian National Centre for Ocean Information Services (INCOIS) Pragathi Nagar (BO), Nizampet (SO) Hyderabad 500090 INDIA Dr Karim HILMI
Directeur de Recherche
Institut National de Recherche
Halieutique (INRH)
02, Boulevard Sidi Abderrahmane
Ain Diab
20180 Casablanca
MOROCCO

series of recommendations (see Annex 2 for a summary of the OONJ Workshop and recommendations), which could be implemented through collaborative action across IOC/UNESCO, the World Meteorological Organization (WMO), and the United Nations Office of Legal Affairs through its Division for Ocean Affairs and the Law of the Sea (DOALOS). One of such recommendations is to draw upon the success of IOC in establishing the Argo Notification Scheme (see Annex 3 for details on the Argo Notification Scheme).

The Decision IOC/EC-55/3.4 also requested the Executive Secretary to compile and summarise the information received and report back to the IOC Assembly in 2023. Accordingly, responses to this letter and information received from GOOS will be compiled and summarized for reporting to the IOC Assembly in June this year.

Member States are hereby invited to provide information on their experiences regarding sustained ocean observations in Areas under their National Jurisdiction including on the issues identified by GOOS. Please kindly complete the 7 questions in Annex 1 and return the questionnaire to Ms Forest Collins (f.collins@unesco.org) by 15 April 2023.

Thanking you in advance for your cooperation, I remain,

Yours sincerely,

[signed]

Vladimir Ryabinin Executive Secretary

Enclosures (3): 1/ Member State Questionnaire: Sustained ocean observations in Areas under their National Jurisdiction

2/ Summary of the Experts Workshop on "Ocean Observations in Areas under National Jurisdiction"

3/ Brief note on the history of the Argo Notification Scheme

Annex 1: Member State Questionnaire: Sustained ocean observations in Areas under their National Jurisdiction

This questionnaire relates to Member States' experiences regarding sustained ocean observations in Areas under their National Jurisdiction including on the issues identified by GOOS, through the "Ocean Observations in areas under National Jurisdiction Experts Workshop" (GOOS Report 246, with a summary provided as annex 2 to this letter.)

Please answer the following 7 questions noting the type of issue and observing platform/network, without mentioning specific countries or institutes.

- 1. In the last 3 years, how many sustained ocean observing activities has your State undertaken or sought to undertake in areas under national jurisdiction?
- 2. In the last 3 years, how many sustained ocean observing activities have been undertaken in areas under your State's national jurisdiction?
- 3. Has your State sought consent to undertake such activities? If so:
 - a. Was the consent granted?
 - b. If consent was withheld, what were the ground/s or reason/s provided by the coastal State, if any, for withholding the consent?
 - c. How long, on average, did it take to receive a response from the coastal State?
- 4. What has been, generally, the experience of your State in requesting consent for sustained ocean observing in Areas under National Jurisdiction? Please describe positive and/or negative aspects.
- 5. Has your State been the recipient of requests for consent to undertake such activities? If so:
 - a. Was the consent granted?
 - b. If consent was withheld, what were the ground/s or reason/s, if any, for withholding the consent?
 - c. How long, on average, did it take to provide a response to the request?
- 6. What has been, generally, the experience of your State as recipient of eventual requests for consent to undertake sustained ocean observing in its maritime zones? Please indicated positive and/or negative aspects.
- 7. In relation to the issues identified in the Ocean Observations in Areas under National Jurisdiction Experts Workshop Report (summary in Annex 2) and the 7 solution spaces proposed, which, if any, of the solution spaces are worth exploring? Are there other solution spaces not proposed in the report that could be explored?

In addition to responding to the 7 questions above, feel free to provide any additional information on your States' experience in relation to sustained ocean observing in Areas under National Jurisdiction that are not covered above, and to express any thoughts regarding the issues, solution spaces and recommendations identified in the Ocean Observations in Areas under National Jurisdiction Experts Workshop Report (see Annex 2 for a summary).

Annex 2: Summary of the Experts Workshop on "Ocean Observations in Areas under National Jurisdiction" (OONJ, GOOS Report, 246) – see <u>full report</u> for detail

Over several years, the scientific community undertaking sustained ocean observations has raised the importance of taking measurements in maritime areas under national jurisdiction. It has also highlighted several challenges related to carrying out research in areas under national jurisdiction, including in disputed areas and relating to the granting of consent for marine scientific research (MSR)¹. To deliver the ocean information that society needs to face the challenges of climate change, safety at sea and at the coast, and sustaining healthy oceans, there is a need for an integrated and global ocean observing system, including observations in areas under national jurisdiction.

The 1982 United Nations Convention on the Law of the Sea (UNCLOS) provides the legal basis for maritime areas such as territorial seas and exclusive economic zones (EEZs), which are areas under national jurisdiction with different rights and obligations for States and international organizations. Areas under national jurisdiction cover over one-third of the ocean and are therefore essential for an effective global ocean observing system. The concerns expressed by the scientific community raise important issues of legal clarity. Although UNCLOS provides the international legal framework for activities in the ocean, implementation raises challenges and requires States to facilitate MSR, including through providing clarity on how they regulate ocean observations and MSR activity in accordance with UNCLOS.

The Advisory Body of Experts on the Law of the Sea (ABE-LOS) of the Intergovernmental Oceanographic Commission (IOC) worked on these issues between 2003 and 2009 and laid the foundation for the development of the Argo notification scheme (see Annex 3). This provides a practical solution, through the notifying of States when Argo floats drift into waters under their national jurisdiction, of enabling rapid clearance for the collection and sharing of such observations. However, many other ocean observing implementers, and the Argo Programme itself in terms of float deployment, still face important challenges when seeking consent to undertake ocean observations in waters under national jurisdiction.

The Global Ocean Observing System (GOOS) has received requests from the implementers of global ocean observing networks to consider the many challenges of ocean observations in EEZs. This issue was raised at:

- The Eighth and Ninth GOOS Observations Coordination Group Meetings (OCG-8, 2018 and OCG-9, 2019)
- The Sixth and Seventh GOOS Steering Committee Meetings (GOOS SC06, 2017 and GOOS SC-7, 2018)
- The World Meteorological Organization (WMO) Executive Council (2018) and 18th World Meteorological Congress (2019).

To address these concerns and support the integrated global ocean observing system, GOOS organised an Experts Workshop in February 2020 on Ocean Observations in Areas under National Jurisdiction to develop ideas for potential solutions, within the existing provisions of UNCLOS, in regard to the taking of sustained observations in waters under the jurisdiction of coastal States.

The UNCLOS promotes the efficient and equitable utilisation of the resources of the oceans and seas, the conservation of their resources, and the study, protection and preservation of the marine environment (preamble, fourth recital). Many Parts of the Convention, including Part XII on the protection and preservation of the marine environment and Part XIV on the development and transfer of marine technology as well as various other articles of UNCLOS contain provisions relevant to

¹ Note the term consent is mainly used within this document and is the terminology consistent with UNCLOS, however this is also referred to as 'clearance' in the ocean observing community and so this term also appears in the document. They both refer to consent being given.

sustained ocean observations, complementing the legal regime for the conduct of MSR as established in Part XIII of UNCLOS.

Part XIII lays out a comprehensive legal framework for the conduct of MSR and aims to achieve a balance between rights and interests of coastal States and that of other States. Yet the term 'MSR' is not defined in the Convention. Other related terms included in UNCLOS such as 'exploration', 'environmental assessments', 'monitoring', 'survey activities', or 'hydrographic surveys' are also not defined in the Convention, but nonetheless, pursuant to the Convention, those activities and uses are not subject to the specific regulatory regime for MSR provided in Part XIII.

Under its most salient provisions, Part XIII reaffirms the right of all States and competent international organisations to conduct MSR (Art. 238) and a duty to promote and facilitate its conduct (Art. 239). In particular, in furtherance of the duty to cooperate, which underpins UNCLOS provisions, States shall seek to promote, through competent international organisations, 'the establishment of general criteria and guidelines to assist States in ascertaining the nature and implications of marine scientific research' (Art. 251). In addition, they shall 'adopt reasonable rules, regulations and procedures' for the promotion and facilitation of MSR beyond their territorial sea and facilitate 'access to their harbours and promote assistance for marine scientific research vessels' (Art. 255). States and international organisations have the obligation to promote international cooperation in MSR (Art. 242), to create favourable conditions for its conduct and to cooperate to integrate the efforts of scientists in studying the essence of phenomena and processes occurring in the marine environment and the interrelations between them (Art. 243). Moreover, they shall publish and disseminate knowledge resulting from MSR and promote the flow of scientific data and information and the transfer of knowledge resulting from them (Art. 244).

The jurisdiction over MSR on its continental shelf and in its EEZ means that a coastal State has the right to regulate, authorise and conduct MSR in these zones (Art. 246(1)). Part XIII establishes specific rules for the granting of consent for MSR to be undertaken in the EEZ or on the continental shelf under the jurisdiction of a coastal State (Art .246(2)). In this regard, consent shall, in normal circumstances, be granted for MSR carried out for peaceful purposes and to increase 'scientific knowledge of the marine environment for the benefit of all mankind' (Art. 246(3)). The consent might also be tacit or implied (Art. 252). However, in certain cases, coastal States may withhold consent (Art. 246(5)-(7)) including if the research project is of direct significance for the exploration or exploitation of natural resources. The State that conducts MSR activities does have the duty to provide information on the research project to the coastal State (Art. 248) and to comply with certain conditions regarding cooperation and participation in the project, sharing of samples, data and research results, and the removal of scientific research installations and equipment (Art. 249).

The issues the global ocean observing networks face in undertaking sustained ocean observing programmes are summarised below. This summary is based on their presentations and discussion at the workshop, which were also informed by the findings from a 2018 joint GOOS-OCG Survey of the global ocean observing networks.

(i) The MSR consent process is incompatible with the *operational reality* of sustained ocean observing

There is no consistency in the practice among coastal States in response to applications for consent to conduct MSR in areas under national jurisdiction, in particular the EEZ. The information required by one State is not the same as another State, and the requirements for information can be excessive to the point of making applications prohibitive. In addition, the process is often governed by different government departments in different States, and often not flexible to change.

(ii) Advance notice is incompatible with operation of sustained ocean observing for some platforms

Apart from the question of the applicability of the UNCLOS MSR provisions for certain types of sustained observations, the application of these provisions is impracticable for a number of observing

platforms and operations. For some observing networks, it is impossible to know ahead of time where an observing platform will be taking the observations. For others, it is important to be able to take advantage of opportunistic vessel transects in remote areas. This is an issue for networks using 'ships of opportunity', those that deploy instruments that drift with ocean currents, and those that deploy instruments on marine animals.

(iii) MSR clearance is often impossible to obtain in zones where EEZs are disputed

In areas where there is ongoing tension or dispute between States over the boundaries of the EEZ, it may become impossible to obtain MSR clearance. Clearance from one State might mean that clearance cannot be gained from the other. These areas frequently remain unsampled as there is no clear method to obtain MSR clearance.

(iv) No national procedure for MSR clearance – new technology

In some States, the Ministry of Foreign Affairs or other relevant competent authority, do not have a procedure in place to apply for MSR clearance for some of the newer ocean observing technologies. In practice, this means that the operator of the scientific equipment does not have a mechanism under which to apply for MSR through their national system. This has been reported as an issue for new observing technologies such as ocean gliders.

Through the discussions at the workshop seven potential 'solution spaces' were identified. These are approaches that have the potential to ease the issues faced by the global networks in taking sustained observations in waters under national jurisdiction, within the context of the current UNCLOS provisions. They are different in nature and require action by different entities. No one solution solves all issues.

An outline of the seven solution spaces is provided below, see GOOS Report 246 for the full analysis of the benefits, challenges, applicability, and feasibility of each solution space.

1. ARGO NOTIFICATION SCHEME AS A PROCESS (MODEL)

The idea is to invoke, through the IOC, the same consultative process that enabled the Argo notification scheme to develop and succeed in creating a new practical arrangement. Such a consultation process might consider platforms and variables, and the achievements that have enabled the Argo notification scheme to be such a success for science and society. If such a consultation process were to develop a similar scheme, there already exists an infrastructure and framework at OceanOPS to facilitate such procedures.

The success of the procedure relies on transparency and good communication, and on the appetite of the IOC Member States to engage in a new process. Many issues are key, such as the access to usable data, the value of the data to national and global challenges, as well as good understanding of the procedure by the IOC Member States.

2. UNCLOS, ARTICLE 247 (IOC PROCEDURE²)

The second solution discussed was the use of UNCLOS, Article 247 which states:

"A coastal State which is a member of or has a bilateral agreement with an international organization, and in whose exclusive economic zone or on whose continental shelf that organization wants to carry out a marine scientific research project, directly or under its auspices, shall be deemed to have authorized the project to be carried out in conformity with the agreed specifications if that State approved the detailed project when the decision was made by the organization for the undertaking of the project, or is willing

² IOC-UNESCO. Procedure for the application of article 247 of the United Nations Convention on the Law of the Sea by the Intergovernmental Oceanographic Commission of UNESCO. UNESCO, 2007. IOC Information document series, 1222. English/French (IOC/INF-1222)

to participate in it, and has not expressed any objection within four months of notification of the project by the organization to the coastal State".

This provision was included in the UNCLOS to facilitate the conduct of MSR projects involving access to EEZs of a plurality of coastal States by introducing an authorisation procedure for projects adopted by or under the auspices of an intergovernmental body. However, Article 247 has yet to be implemented and its implementation could be complex and open to interpretation. In essence, it provides for Member States of an intergovernmental body (for example the IOC) to adopt an MSR project, which then may be carried out after giving notice of intent to conduct the project in a member or participating State's EEZ. If no objection is received within a limited time frame (four months), in theory, the work could go ahead.

3. UPDATE TO THE DOALOS GUIDE

The third solution is to update the Guide prepared by the Division for Ocean Affairs and the Law of the Sea (DOALOS) "Marine Scientific Research: A revised guide to the Implementation of the Relevant Provisions of the United Nations Convention on the Law of the Sea" (UN, 1991, 2010). This guide provides draft standard forms for States to use when they request an MSR project clearance and draft standard forms for the States in providing clearance. The idea is that updated guidance could reflect the issues raised in the workshop, providing a new 'best practice' for granting MSR clearance for sustained observing that would address the issues of MSR process and advanced notification (issues 1 and 2 above).

There is a specific procedure to develop updates to the Guide that includes a mandate from DOALOS Member States through the annual General Assembly resolution on Oceans and the law of the sea. However, it was suggested that a 'lighter' approach could be in the form of issuing additional guidance to the existing Guide. The Division would need to look into the details to assess the feasibility of the lighter process, including costs implications. The second edition of the Guide to the Implementation of the Relevant Provisions of the United Nations Convention on the Law of the Sea, that is currently in use, was finalised in 2009. There is some argument that it could be time to develop an update.

4. RAISING AWARENESS ACTIVITIES

Raining awareness to aid coastal States to realise the value of the observations, for example around issues that impact States such as climate change, sea level rise, extreme weather, and to raise awareness on the need to have a truly integrated GOOS, increasing transparency and enabling an evaluation of benefit versus risk.

There was a general agreement that States may not fully realise what the value of ocean observations is to the national, regional and local society or the issues faced by observers. Awareness raising activities is an immediately actionable solution that would benefit all networks.

5. WMO RECOMMENDATIONS

Looking at additional resolutions related to variables/platforms that are important for WMO service delivery could be considered.

6. REGIONAL ARRANGEMENTS

Several examples exist of specific networks reaching agreement with a group of States in specific areas. There was agreement on the importance of regional governance and that working to develop a regional multi-State agreement to help facilitate observations in waters under national jurisdiction could be useful in some circumstances.

As a clarification on the European Union (EU) legislation on MSR, there is no EU competence on MSR and an EU Member State must go through its European neighbour's clearance procedure to

work in its EEZ. Fisheries are regulated by the European Union and therefore have a different regulation. Stock abundance research for fisheries is not considered MSR but under the sovereign jurisdiction of the coastal State.

The participants examined if a solution space existed at the EU level, given that structures such as EuroGOOS and the European Ocean Observing System (EOOS) support coordination at a EU level. Although there is no EU marine space in general and the EU has no official competence on this issue, a project for a simplified procedure for the Member States of the EU was discussed in the past but never accepted.

Notwithstanding, this solution can be used now to develop accord in areas with close maritime links, and does not involve, for example, the agreement of all IOC Member States, just those with common regional interest(s).

7. UNCLOS, ARTICLE 258

The UNCLOS contains one provision, Article 258, which explicitly refers to the deployment of scientific installations and equipment. That article reads as follows:

"The 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".

Some participants suggested the use of Article 258 as a means to clarify the status of new ocean observing platforms, e.g. ocean gliders, in light of difficulties experienced with some coastal States about clearance applications concerning their deployment. The provision could be used to clarify to national authorities that the national MSR clearance procedures should also incorporate the use of new technologies, other than vessels.

Some participants expressed the view that Article 258 should not be viewed as a 'solution space' as it confirms that the deployment of installations and equipment for MSR is subject to the same legal regime as vessels. It confirms that the deployment of new technology and equipment for MSR is subject to the same legal regime as vessels but does not resolve the other issues raised.

The need for action at an international level has been recognised by for example the G7 Science and Technology Ministers' Tsukuba Communiqué³ which notes '93% of the global ocean is >200 m deep and spans many different jurisdictional boundaries and is governed by established international law; ocean observing is "big science". Proper, sustained, comprehensive and globally coordinated observation of the ocean and seafloor is necessary so that we have the tools to provide the data and understanding required to inform, with evidence, policy decisions about use of the ocean, especially against the background of human-induced change and natural variability. A comprehensive ocean observing programme would need to operate under a sound international framework in order to coordinate the deployment of global ocean observing assets to optimize their usage'.

Requests for MSR clearance can be subject to geopolitical issues that go far beyond the realm of ocean science, and therefore requires action beyond the level of organisations such as GOOS, the OCG and the global networks. It requires higher level action by intergovernmental bodies such as IOC/UNESCO, WMO, DOALOS, and the United Nations General Assembly which has declared its competence to review developments in ocean and law of the sea matters.

The OONJ Workshop recommendations were:

1. IOC to consider initiating a process equivalent to the Argo notification scheme applicable to other platforms/variables

³ https://www8.cao.go.jp/cstp/english/others/communique_en.html

- 2. IOC, with DOALOS and WMO support, to set up an informal meeting to discuss and share different practices in the implementation of MSR clearance procedures by States
- IOC/GOOS, WMO and DOALOS to consider a joint workplan or initiative to raise awareness of the issues and the value gained from ocean observations, nationally and globally, especially in the context of the aims of the United Nations Decade of Ocean Science for Sustainable Development
- 4. WMO to consider how resolutions could be supportive in highlighting the need for sustained ocean observations from EEZs
- 5. DOALOS to assess if there is appetite to pursue gaining a mandate from Member States to develop an update to the DOALOS "Revised Guide to the Implementation of the Relevant Provisions of the United Nations Convention on the Law of the Sea on MSR"
- 6. IOC to consider initiating a pilot, using the IOC Article 247 process (<u>IOC/INF-1222</u>: Procedure for the application of article 247 of the United Nations Convention on the Law of the Sea by the Intergovernmental Oceanographic Commission of UNESCO)

Annex 3: Brief Summary on the history of the Argo Notification Scheme

IOC has a successful history in developing a cooperative framework for the real-time sharing of ocean data, in particular, the IOC was successful in creating a Member State-agreed framework and mechanism, in compliance with United Nations Convention on the Law of the Sea (UNCLOS), for the provision of data from floats in the global Argo Programme that drift into EEZs.

The Argo programme was formally accepted and defined by IOC Resolution XX-6 (1999). The resolution also considered that Argo be "fully consistent with the UN Convention on the Law of the Sea." In 2005, the IOC Assembly instructed IOC's Advisory Body of Experts on the Law of the Sea (IOC/ABE-LOS) to address the deployment of floats on the high sea which may drift into EEZs. In response IOC Resolution EC-XLI.4 ("Guidelines for the Implementation of Resolution XX-6 of the IOC Assembly Regarding the Deployment of Profiling Floats in the High Seas within the Framework of the Argo Programme") was developed and adopted, and provides a practical set of guidelines for notification to coastal States that is used today with success, with the involvement of the Argo Information Centre (AIC) at OceanOPS (formerly JCOMMOPS), see IOC Circular Letter 2271. An electronic notification procedure was implemented by the AIC to inform all Member States through their designated Argo National Focal Point (NFP), of all deployments of Argo profiling floats and the types of sensors that were carried. IOC Member States are regularly requested to update their Argo National Focal Points. Following up on Resolution EC-XLI.4, an additional notification system was set up to meet the requirements of Member States requesting a formal notification from the implementer when an Argo float approaches their Exclusive Economic Zone.

Respecting the rights of coastal States and adhering to UNCLOS, Argo has operated for over 18 years under the above guidance of the IOC and the independent monitoring by the AIC, notifying Member States routinely of float locations, sensors carried, and status with respect to EEZs.