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8th Meeting of the Parties of the Southern Indian Ocean Fisheries Agreement (MoP8)

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Report on the intersessional working group on the establishment of a SIOFA Vessel Monitoring System

Relates to agenda item: 10 Working paper ☐ Info paper ☒

Delegation of the European Union

Abstract

The 7th Meeting of the Parties recommended that the European Union (EU), with support from the SIOFA Secretariat, lead the intersessional work on developing a SIOFA Vessel Monitoring System (VMS) in advance of the next ordinary Meeting of the Parties (MoP7 meeting report, paragraph 123).

The EU prepared a discussion paper to facilitate this intersessional work. The paper was circulated to the CCPs that had an expressed an interest in participating.

This information paper provides an overview of the views expressed by the CCPs that responded to the discussion paper. The EU thanks those CCPs for their constructive engagement and useful suggestions.

This paper accompanies a draft proposal for a Conservation and Management Measure and associated roadmap for the establishment of a SIOFA VMS (MoP-08-16).

SIOFA intersessional Working Group
on the development of a SIOFA Vessel Monitoring System (VMS)

Outcome of intersessional discussions

1. Introduction

The 7th Meeting of the Parties, held from 17 to 20 November 2020, recommended that the European Union (EU), with support from the SIOFA Secretariat, lead the intersessional work on developing a SIOFA Vessel Monitoring System (VMS) in advance of the next ordinary Meeting of the Parties (MoP7 meeting report, paragraph 123).

The EU prepared a discussion paper to facilitate this intersessional work, which was circulated to the CCPs that had an expressed an interest in participating. The paper set out some of the key choices to be made by the Meeting of the Parties for the acquisition and implementation of the future SIOFA VMS, taking into account the objectives and considerations outlined in the SIOFA Agreement and the provisions relating to VMS set out in SIOFA Conservation and Management Measure (CMM) 2019/10 (Monitoring). Inspiration was also drawn from the VMS systems and related documents developed by other Regional Fisheries Management Organisations (RFMOs)[1], in particular those adjacent to the SIOFA Agreement Area.

Five out of the seven CCPs that had expressed an interest in participating in the intersessional work provided feedback to the discussion paper: Australia, Chinese Taipei, France (OT), Japan and Thailand. The EU thanks those CCPs for their constructive engagement and useful suggestions.

2. Analysis of responses and main conclusions

2.1. Purpose of the SIOFA VMS

There was general agreement that the future SIOFA VMS should support the objectives defined in Article 2 of the SIOFA Agreement by requiring CCPs to transmit VMS data from their vessels to the SIOFA Secretariat and making these VMS data available to CCPs for control purposes. In accordance with Article 6(1)(h) of the Agreement, the main purpose of the SIOFA VMS should be to ensure compliance with CMMs through the monitoring, control and surveillance of fishing activities in the Agreement Area. There was no opposition to also using VMS data to support search and rescue activities.

Some CCPs expressed support for the purpose of the VMS to be understood in broader terms than under Article 2 of the Agreement, recognising the multiple benefits of VMS. In particular, they noted that the SIOFA VMS could contribute to supporting sound fisheries management and scientific processes and would deter any fishing activities that are not consistent with the objectives of the Agreement, including illegal, unreported and unregulated (IUU) fishing by non-CCPs.

[1] In particular CCAMLR CM 10-04 (2018), NAFO Conservation and Enforcement Measures 2021, SPRFMO CMM 06-2020, and WCPFC CMM 2014-02.

Other CCPs preferred to defer a decision on the use of VMS data to support sound fisheries management and scientific processes to a later stage. One CCP noted that VMS data are currently already made available to the Scientific Committee when necessary, and that the purpose of any further data sharing for science or fisheries management would need to be clearly defined and regulated.

2.2. Scope of the SIOFA VMS

CCPs agreed to maintain the current spatial and vessel scope currently set out in CMM 2019/10 for the future SIOFA VMS, i.e. to the geographical area defined in Article of 3 of the Agreement ('SIOFA Area of Application') and to CCP fishing vessels registered on the SIOFA record of authorised vessels while they are operating in the Agreement Area.

CCPs were invited to comment on whether vessels should be allowed to stop transmitting VMS data when in port, which some RFMOs allow, subject to a prior notification to the Flag State (and, if the Flag State requires, to the Secretariat) and subject to the vessel remaining in the same geographical position until it resumes transmission of VMS data.

One CCP noted that the SIOFA Agreement Area covers the High Seas, therefore transmitting VMS data in ports is not currently required, but that some countries do require port-to-port monitoring as a precursor to market access. Another CCP noted that it requires its vessels to report their VMS position every hour when in port.

Other CCPs noted it is technically impossible for vessels to transmit their position to their FMC in port when the vessel power switch is off as ACL power is down then too.

3. Use and release of VMS data

Depending on the different purposes for which VMS data are collected, it may be useful to distinguish between purposes for which permission is needed from the flag CCP for the use and release of VMS data to other CCPs and purposes for which such permission is not necessary. Currently, SIOFA CMM 2020/10, Paragraph 7, encourages CCPs to share VMS data where it is requested from another CCP in support of patrol or surveillance activities and prohibits CCPs from using any information so received for other purposes.

CCPs agreed that no prior authorisation was required for the release and use of VMs data for supporting search and rescue activities. One CCP commented that in these cases, rules should still be set for geographical and time limitation of the provided VMS data (e.g. within 100 miles in radius from a target vessel, deletion of VMS data within a defined number of hours). Another CCP noted prior permission should not required in such cases but that the flag CCP concerned should be informed.

As regards the release and use of VMS data for control purposes (i.e. for the planning and implementation of active surveillance operations and/or inspections at sea), a majority of CCPs supported the principle of no prior permission from flag states being required. One of those CCPs noted this is important for the effectiveness of boarding and inspection operations and that their preference is for this principle to apply to 'all fisheries activities in the high seas' as is the case in WCPFC, rather than only for 'active surveillance operations and/or inspections at sea' as is set out in the proposed way forward. Other CCPs, however, considered that prior permission should be

required. One CCP noted that, unlike in search and rescue situations where urgency was a factor, there was sufficient time to seek flag states permission for control proposes. That CCP also commented that the provision of VMS data should be limited to certain geographical areas and periods and that inspection plans should be submitted to the Secretariat well in advance.

CCPs generally agreed that prior permission should be needed for the release and use of VMS data for scientific and fisheries management purposes. One CCP noted that in those cases, there is no pressing urgency to justify no prior permission, and that the necessity of VMS data should be considered in a case-by-case basis.

One CCP noted that, as data will only be released in accordance with established rules, the Secretariat should only be required to report to flag States of the release of their VMS data on an annual basis, thereby limiting the administrative burden on the Secretariat.

4. Model for the transmission of VMS data to the SIOFA Secretariat

CCPs were asked to comment on different options for the transmission of VMS data to the SIOFA Secretariat, notably a 'decentralised' model (VMS data sent by vessels to their Flag FMC that then forwards it to the SIOFA Secretariat), a partially centralised' model (vessels report their VMS data simultaneously to the SIOFA Secretariat and to their flag State FMC), or a 'hybrid' model giving CCPs the choice of implementing either the decentralised or partially decentralised model. It was noted that these options come with different costs and implications for data accuracy and manipulation.

A majority of CCPs expressed support for the decentralised and/or the hybrid model.

One CCP expressed its preference for a 'partially centralised' option involving a single VMS unit on each vessel transmitting data to a service provider, and the service provider sending the data to both the flag State FMC and SIOFA Secretariat simultaneously. The CCP noted that this would allow the flag State and Secretariat to identify any technical errors more easily and quickly given they both receive the same data at the same time, and that providing data 'directly' to the Secretariat from the vessel is the most effective means of mitigating any data manipulation. The CCP also noted that implementing a 'decentralised' model would probably incur comparable costs to implementing a 'partially centralised' model but that a 'partially centralised' model would be better value in terms of achieving the purpose of a SIOFA VMS. There may also be opportunities for cost efficiencies to be realised in the operation of a 'partially centralised' model, such as the Secretariat outsourcing the monitoring of the SIOFA VMS.

5. Components of the SIOFA VMS

The SIOFA VMS would have the following three components:

- The hardware (ALCs) and set-up required on-board authorised fishing vessels;
- The data required and format of reports transmitted via VMS; and
- The capability of the Secretariat to receive, archive and circulate VMS reports.

5.1. The hardware (ALCs) and set-up required on-board authorised fishing vessels

a) <u>Minimum standards for ALCs</u>

The CMM 2019/10 includes, as minimum standards, that each CCP shall ensure that the ALCs fitted on board vessels flying its flag are tamper resistant, that is, are of a type and configuration that prevent the input or output of false positions, and that they are not capable of being over-ridden, whether manually, electronically or otherwise. To this end, the ALC must be located within a sealed unit and be protected by official seals (or mechanisms) of a type that will indicate whether the unit has been accessed or tampered with.

CCPs were invited to comment on the adoption of more detailed minimum standards for ALCs to avoid tampering and responsibilities with regard to the obligations of the vessel master, and on the implementation of type approval processes for ALCs, such as that implemented by the WCPFC.

A majority of CCPs supported the establishment of more detailed minimum standards and further responsibilities with regard to the obligations of the vessel master. One CCP expressed support for the establishment of measures that are consistent with what is applicable under CCAMLR regulations. Another CCP suggested to defer these discussions to a later stage.

A majority of CCPs also supported not to implement type approval processes for ALCs. One CCP suggested that the type approval process be considered at a later stage, but noted that there would be benefits to SIOFA adopting such an approach, including providing clarity to flag States as to which units are recognised as meeting SIOFA's requirements. The CCP's preference is therefore for a standard to be adopted and for flag States to carry the burden of demonstrating that a unit meets the standard. The Secretariat's role would be to administer. A type approval process would need to be set out clearly to minimise the administration burden on the Secretariat.

b) Manual transmission

SIOFA CMM 2020/10, paragraph 9b, currently provides that in the event of technical failure or non-operation of the ALC, vessels are required to report their position manually and, if necessary, to repair or replace their ALC. Most RFMOs have similar provisions setting out a manual procedure for VMS reporting in case of ALC failures. CCPs were asked whether it would be useful for SIOFA to introduce more detailed manual reporting obligations for transmission of VMS reports in case of ALC failure.

A majority of CCPs agreed to the establishment of more detailed manual reporting obligations in case of ALC failure. Two of these CCPs noted that they supported the establishment of measures that are consistent with practices established in other RFMOs, with one CCP expressing a preference for consistency with CCAMLR regulations. The other CCP noted their support for a mechanism to ensure that members have access to current information on vessels that are reporting manually.

One CCP expressed a preference for maintaining the current SIOFA rules for manual reporting, noting that these have worked well. In the event that the rules on manual reporting become stricter, that CCP considers that fishing vessels should be allowed to continue to operate in the SIOFA Area for a certain length of time until they are able to ensure the repair of their ALC.

5.2. VMS information and format of reports transmitted

CMM 2019/10, paragraph 8b, sets out the minimum VMS information currently required by SIOFA. SIOFA presently requires only position reports to be transmitted to the SIOFA Secretariat. This is also the case for many other RFMOs. Other data can also be transmitted via VMS, such as fishing data

(catch/effort reports). For example, NAFO requires vessels to transmit position reports and daily catch reports via VMS.

CCPs generally agreed to limit VMS data to position reports initially and to defer a decision on the transmission of other data to a later stage. One CCP noted that deferral would be prudent, as the VMS model that will be adopted by SIOFA will influence what data can be transmitted to the Secretariat.

In relation to the type of information to be transmitted, CCPs were asked their comments on which 'static unique' vessel identifier should be used for the SIOFA VMS, with options including a vessel's IMO number, SIOFA identifier[2], International Radio Call Sign (IRCS) and Maritime Mobile Service Identity (MMSI). In response to the suggestion to add the vessel's IMO number and SIOFA identifier as necessary data, one CCP reserved its position depending on the technical feasibility of adding new information in the VMS reports. Another CCP opposed the addition of new information due to the corresponding costs and because the information currently provided is sufficient for control purposes, but noted that the IMO number, SIOFA identifier, and Flag are basic information of vessels in SIOFA authorised vessels list that authorised to fish in the Agreement Area.

5.3. Transmission of VMS data to the SIOFA Secretariat

CMM 2019/02 has no data standard for VMS or for the format of the messages. Insofar as CMM 2019/10 already requires CCPs to receive VMS information from their vessels when operating in the SIOFA Agreement Area, the simplest way to make that data available for the SIOFA Secretariat is to require CCPs to transmit the data in a standard format. There exist several data standards for VMS transmission (e.g. NAF) that could be used and an international standard is under development at United Nations level (CEFACT). Alternatively, discussion on the technical specifications for the format of VMS reports could take place at a later stage.

A majority of CCPs expressed a preference to defer discussions on the data format until there is clarity about the design of the future SIOFA VMS. One CCP noted that the format of data is not an issue for the 'partially centralised' model as the Secretariat would receive directly the exact same data as the flag State FMC, negating the need for a flag State to prepare the data for submission to the Secretariat. That CCP also noted its preference to adopt data standards already in use in adjacent RFMOs. Another CCP highlighted that as different CCPs may use different formats, the introduction of a standard format may come with an extra cost not only for CCPs but also for the Secretariat; hence, they suggested adjusting the format by taking into account the Secretariat's capability of processing VMS data.

Two CCPs noted that they did not support the use of the UN/CEFACT standard, with one of those CCPs noting that they preferred the NAF format, which is widely used, and another considering that the minimum VMS information currently required by SIOFA (CMM 2019/10) is sufficient for MCS. The latter CCP noted that modifying the VMS data format would bring additional costs for its fleet.

6. Data security and confidentiality requirements

There was broad support among CCPs for developing strict data security and confidentiality requirements for the SIOFA VMS to ensure that any VMS data received by the SIOFA Secretariat, VMS

[2] This is the number by which the vessel is registered in the SIOFA Register of Authorised Vessels.

provider and/or CCPs is released and used for agreed purposes only (where necessary with the prior permission of the flag CCP) and protected against accidental or unlawful destruction or accidental loss, alteration, unauthorised disclosure or access, and against all inappropriate forms of processing. CCPs also supported the deletion of VMS data when no longer required.

One CCP noted that while all information held by the SIOFA Secretariat is subject to data security and confidentiality requirements, there is a need to include a specific review of CMM 2016/03 as to its applicability and appropriateness to VMS data security, confidentiality, management and use.

Another CCP considered that a time period and rules should be developed for the deletion of data and commented that VMS data confidentiality could be discussed at a later stage in the development of the SIOFA VMS.

7. Other aspects

CCP were invited to comment on whether a phased approach would be useful for setting up the SIOFA VMS, notably by focusing in a first phase on adopting a CMM setting out the essential requirements (e.g. objective, scope, roles and responsibilities) to start developing the SIOFA VMS. This would be followed in a second phase by further work to develop SIOFA VMS Standards, Specifications and Procedures (SSPs) in particular as regards data formats, data integrity and security, possibly based on technical input from a consultant.

There was general support from CCPs for a phased approach. One CCP noted that it was necessary to agree on a model and end-point before working through the technical details of a SIOFA VMS and that this approach would benefit from a roadmap that identifies when key milestones or decision points are to be achieved and the necessary steps to be taken at each stage of development, noting that such an approach may not necessarily be linear. Another CCP highlighted the need for sufficient opportunity to consult internally to evaluate the feasibility of technical requirements and standards.

CCPs requested the Secretariat to

- report on the number of authorized vessels that actually operated or entered in the SIOFA area in recent years and that would send VMS information to the SIOFA secretariat;
- estimate the cost of establishing the SIOFA VMS, including maintenance and operating costs, as well as potential additional staff costs due to the need to recruit a VMS manager.

One CCP noted that the SIOFA budget should support any modification of the VMS report format.

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