



## 1<sup>st</sup> Meeting of the SIOFA VMS Working Group (VMSWG-01)

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VMSWG-01-01

# Proposed Standards, Specifications and Procedures (SSPs) for the SIOFA VMS

SIOFA Secretariat

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<b>Abstract</b>	
<p>Following the adoption of Conservation and Management Measure for the establishment of a SIOFA Vessel Monitoring System, CMM 16(2023), the CCPs agreed to further complete the requirements of CMM 16 (2023), as required by paragraph 9 thereof. The MoP established a working group to complete this work, among other tasks.</p> <p>The Secretariat presents a first draft of these SSPs for discussion and consideration by the working group.</p>	

<b>Recommendations</b> (for proposals and working papers only)
<ul style="list-style-type: none"> <li>• That the SIOFA VMS WG notes and considers these SSPs</li> <li>• That the SIOFA VMS WG proposes the adoption of these SSPs by the MoP, through the Compliance Committee.</li> </ul>

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# Proposed Standards, Specifications and Procedures (SSPs) for the SIOFA VMS.

**SIOFA Secretariat**

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Southern Indian Ocean Fisheries Agreement  
*Accord relatif aux Pêches dans le Sud de l'Océan Indien*



Southern Indian Ocean Fisheries Agreement (SIOFA)  
13 Rue de Marseille  
97420 Le Port  
La Réunion

[secretariat@siofa.org](mailto:secretariat@siofa.org)

[www.siofa.org](http://www.siofa.org)

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## Background

Vessel Monitoring Systems (VMS) are satellite-based monitoring systems that enable flag States and regional fisheries management organisations (RFMOs) to track and monitor the activities of fishing vessels in a defined geographical area through the transmission of position data by fishing vessels at regular intervals. They are a cornerstone of monitoring control and surveillance (MCS) programmes at national and international levels and a key instrument in the fight against illegal, unreported and unregulated (IUU) fishing.

Article 6(1)(h) of the Southern Indian Ocean Fisheries Agreement (SIOFA) requires SIOFA to develop rules and procedures for the monitoring, control and surveillance of fishing activities to ensure compliance with SIOFA conservation and management measures (CMM), including a system of verification incorporating vessel monitoring and observation of vessels operating in the SIOFA Area. While flag CCPs are required to track and monitor their vessels' activities using VMS, SIOFA does not operate a VMS system. In this respect, it is behind other RFMOs that have installed and operated a VMS. However, CMM 10 on Monitoring also requires SIOFA to develop specifications and propose rules and procedures for establishing a SIOFA VMS.

To close this gap, the 10th Meeting of the Parties to the SIOFA (MoP10) adopted a Conservation and Management Measure (CMM) setting out the framework of the SIOFA VMS covering all critical aspects, including the scope of application, definitions, nature and specifications of the VMS, prevention of tampering and actions in case of suspected breach, use and release of VMS data requiring / not requiring the consent of Contracting Parties, Participating Fishing Entities and Cooperating non-Contracting Parties (collectively: CCPs), closed and interim protected areas, as well as data security and confidentiality. However, this framework needs to be further completed through the development of Standards, Specifications and Procedures (SSPs) as required by paragraph 9 of [CMM 16 \(2023\) \(Vessel Monitoring System\)](#),<sup>1</sup> prior to the entry into operation of the SIOFA VMS.

This paper presents a first draft of the SSPs for the SIOFA VMS to be first considered by the SIOFA VMS Working Group and, subsequently, the Meeting of Parties through the Compliance Committee.

***The proposed SSPs assume that Cooperating Non-Contracting Parties (CNCs) will have similar privileges as CPs and PFEs, recalling that CNCs do not currently contribute to the budget, which may be impacted by the implementation of the SIOFA VMS.***

***For the purpose of this document, all terms and terminologies used shall have the same meanings as those in CMM 16 (2023) unless otherwise specified.***

***Texts highlighted in yellow represent elements where further guidance and decisions are required from the MoP through the VMS WG. These decision points are summarized in [Appendix 1](#) of this document.***

***Texts highlighted in fluorescent blue represent elements where the minimum is proposed, but may be further elaborated by the VMS WG.***

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<sup>1</sup> Conservation and Management Measure for the establishment of a SIOFA Vessel Monitoring System (Vessel Monitoring System)

## 1. Purpose

1. The purpose of these SSPs is to complement measures established under CMM 16 (2023) so as to achieve the objectives of the CMM, which are to monitor in an automatic, continuous and cost-effective manner the movements and activity of fishing vessels operating in the Agreement Area to ensure compliance with SIOFA Conservation and Management Measures (CMMs).

## 2. Application

2. These SSPs shall apply to the SIOFA VMS established under CMM 16 (2023) operating within the Agreement Area (Area).
3. Installation and use of ALCs shall be subject to these SSPs, as adopted by the Meeting of Parties.
4. Non-compliance with these SSPs will be considered non-compliance with CMM 16 (2023), recalling that these SSPs are an integral element thereof. The compliance with these SSPs shall be assessed as part of the SIOFA Compliance Monitoring Scheme (CMS) and processes established thereunder.
5. These SSPs do not prejudice the right of CCPs to apply additional or more stringent measures to prevent tampering with ALCs on board vessels flying their flag.

## 3. General Provisions

6. CCPs shall:
  - a. For vessels entered onto the SIOFA Record of Authorized Vessels (RAV) prior to the entry into force of CMM 16 (2023), provide ALC details specified in paragraph 7 for each vessel registered on the SIOFA RAV within **XX** days after the entry into force of CMM 16 (2023).
  - b. For vessels to be entered onto the SIOFA RAV after the entry into force of CMM 16 (2023), CCPs shall provide ALC details specified in paragraph 7 at the time of the submission of information required by [CMM 07 \(2022\) \(Vessel Authorization\)](#).<sup>2</sup>

### 7. Details to be submitted upon the attribution of ALCs to a fishing vessel shall include the following:

- a. Model and Make
  - b. Serial Number<sup>3</sup>
  - c. Maritime Mobile Service Identity (MMSI)
  - d. Service Provider (Inmarsat/Iridium/ARGOS) ID
8. The Secretariat shall maintain a database of ALCs attributed to vessels entered onto the SIOFA RAV. **ALC details contained in the database shall be treated as confidential information and shall not be public domain data.**

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<sup>2</sup> Conservation and Management Measures for Vessel Authorisation and Notification to Fish.

<sup>3</sup> For INMARSAT ALCs, the CCPs should provide the *Inmarsat Serial Number* (ISN)

## 4. Methods to ensure ALCs comply with SIOFA Standards

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### *Explanatory Notes*

Paragraph 12 of CMM 16 (2023) sets out the general standards by which ALCs are expected to be installed and operated. Paragraphs 18 and 19 expand on the requirements to have tamper-proof ALCs while also prohibiting the tampering of ALCs. The minimum standards for ALCs are further described in Annex 1 of CMM 16 (2023).

To ensure that vessels and CCPs can monitor compliance with these requirements, this section of the SSP prescribes procedures for flag CCPs to assess compliance with SIOFA Standards of ALCs installed on their vessels. Port States and Authorized Inspection Officers participating in the High Seas Boarding and Inspections Scheme (HSBI) may also implement these procedures, recalling that the purpose of both applicable CMMs is to ensure compliance with the provisions of CMMs adopted by the MoP.

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9. Verifying compliance with the CMM's requirements will be the flag CCP's responsibility for a given vessel. However, these procedures may also be implemented by Port CCPs and Authorized Inspectors engaging in HSBI.
10. The MoP shall adopt a list of approved ALCs that may be used by vessels entered onto the SIOFA Record of Authorized Vessels (RAV). In preparing this list, the MoP shall consider lists approved by existing regional and subregional VMS programs and lists approved by CCPs. The list may be updated based on an established set of processes according to a type approval process.
11. The MoP shall also adopt a *type approval process* ([Annex 1](#)) that will describe the procedure of testing and verification, which shall lead to an ALC being approved for use by vessels on the SIOFA RAV and subsequent listing on the list of approved ALCs.
12. Periodic audits of a representative sample of installed ALCs are to be carried out by **CCPs (Scenario 1.1)/ Secretariat (Scenario 1.2)/ or a Contracted independent third party** to verify the specification and standards as set out in Annex 1 of CMM 16 (2023) are being complied with and that there is no visible evidence of tampering. The auditing process will also be used to ensure that anti-tampering standards for ALCs are being met.
13. The number of audits to be planned annually shall be determined by **CCPs/ MoP (CC)/ predetermined level per CCPs**.
14. MoP<sup>4</sup>/CCPs<sup>5</sup> are responsible for ensuring that the audits are conducted by qualified operatives, such as duly authorised officers.
15. Audit reports will include, at minimum, measurements of ALC position accuracy, elapsed time between transmission and reception of data, the integrity of VMS position reports, and any physical anomalies (connections, power supply, evidence of tampering) noted by the inspecting personnel.

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<sup>4</sup> In case the Secretariat or contracted third party is carrying out audits.

<sup>5</sup>In case CCPs or contracted third parties are carrying out audits.

16. The results of these audits shall be provided to the Secretariat, which shall consider the outcome of these audits when preparing the draft SIOFA Compliance Report (dSCR) for each CCP. The audits shall also be included in the report prepared pursuant to paragraph 34 of CMM 16 (2023).

**16bis. [Applicable in Scenario 1.1 only]** The Secretariat shall also be entitled to carry out independent ALC audits on vessels from any CCPs entered onto the SIOFA RAV. Audits undertaken by the Secretariat (or an appointed independent personnel) shall be *prima facie* in all circumstances.

17. Audits carried pursuant to these SSPs shall have due regard to the safety of the officers designated for this purpose and the crew of the vessel. These audits shall also be undertaken in a manner that does not unreasonably cause delays to the normal operations of a fishing vessel.

## 5. ALC Inspection Protocols

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### *Explanatory Notes*

These SSPs provide guidelines for facilitating the inspection of ALCs by a duly authorised inspecting party. It places the relevant obligations on the master of fishing vessels and also allows for accountability by authorised inspecting parties.

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18. Inspections carried out by flag CCPs Port State CCPs shall be undertaken in accordance with the laws of these CCPs, these SSPs and any other applicable provisions of CMMs adopted by the Meeting of Parties. Inspections carried out within the Area shall be undertaken with due regard to the requirements of [CMM 14 \(2021\) \(High Seas Boarding and Inspection Procedures\)](#).<sup>6</sup>
19. Upon boarding for inspections, the master of the fishing vessel shall make its ALC, including antenna, connectors, power supply, and antenna cable, available for inspection as directed by the inspecting party.
20. Should a master refuse access to its ALC unit, any parts thereof, or the power supplies to an inspecting party, the inspecting party will inform the relevant flag state (if different from the inspecting party), who shall, without delay, notify the Secretariat. The flag state will order the concerned vessel to comply immediately. The flag state will direct any vessel that refuses this order while operating in the Area to conclude the fishing trip and direct them to a port where a full equipment inspection will be carried out.
21. A report issued as a result of each inspection will indicate the conformity of the ACL unit and installations with specifications set out in CMM 16 (2023), including annex 1 thereof.
22. In the case where the inspection reveals any anomaly with the specification, the inspecting party will inform the flag CCP (if different from the inspecting party) and the Secretariat. Any anomalies observed shall be rectified within 30 days, and a new inspection confirming these anomalies have been rectified will be carried out.
23. Reports of all inspections carried out will be submitted to the Meeting of Parties, as per paragraph 35 of CMM 16 (2023).
24. Flag CCPs shall take action pursuant to their domestic legislation against vessels that do not comply with these SSPs. They shall also provide a report to the Compliance Committee of actions taken against such vessels.
25. ALC inspections carried out pursuant to these SSPs shall have due regard to the safety of the inspecting party<sup>7</sup> and the crew of the vessel. These inspections shall also be undertaken in a manner that does not unreasonably cause delays to the normal operations of a fishing vessel.

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<sup>6</sup> Conservation and Management Measure for High Seas Boarding and Inspection Procedures for the Southern Indian Ocean Fisheries Agreement.

<sup>7</sup> For the purposes of these SSPs, Inspecting party (ies) includes any personnel duly authorised by the flag CCP for the purposes of inspecting ALCs, an authorised inspection officer as defined in CMM 14 (2021), or an inspector authorised pursuant to CMM 08 (2020).



## 6. Rules for Polling and Programming for Vessels Reporting to the Secretariat in accordance with Paragraph 6 b).

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### *Explanatory Notes*

Paragraph 6 b) of CMM 16 (2023) allows for simultaneously reporting VMS position reports automatically to the Secretariat. In this regard, there may be a need to interact with the ALCs to program its automatic reporting and to change its reporting frequency based on location (programming) and also to "query" an unscheduled position report (polling). It should be noted that while CMM 16 (2023) does not provide for polling of ALCs, it may be required during diagnosis when the good reception of position reports cannot be achieved. Other cases may be to stop the reporting temporarily or indefinitely based on scenarios, such as the deletion of the vessels from the SIOFA RAV, repairs, flagging and decommissioning of fishing vessels.

The procedure and complexity for such will depend on the model of the ALC and its service provider. This should also consider that the MoP should provide guidance on the following:

- The Secretariat is to undertake any polling and programming with the consent of the CCP (Scenario 2.1). Or:
- The CCPs do the polling and programming of ALCs reporting simultaneously to the Secretariat (Scenario 2.2)

In the case of the former, it shall be assumed that the CCPs provide consent for the polling and programming of the ALCs upon the registration vessels on the SIOFA RAV. It should be noted that there are no specified mechanisms for the registration of VMS to the Secretariat. As such, these SSPs suggest procedures for the same.

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#### **Scenario 2.1**

For ALCs that require programming, the Secretariat shall do the needful to download the Data Network Identifiers (DNID), if needed, and proceed with the programming of the ALC based on procedures established by the service provider of the ALC. This will include automated or manual modification of reporting frequency as required by SIOFA CMMs. For ALCs that are programmed directly by their service providers, the CCPs shall submit the request for the automated reporting of VMS position reports to the ALC service provider, including the automated modification of position report once every hour when vessels are present in the Del Cano Rise, in accordance with paragraph 25 of [CMM 15\(2023\) \(Management of Demersal Stocks\)](#).<sup>8</sup> CCPs shall promptly inform the Secretariat once the ALC has been programmed as necessary. In either case, the Secretariat shall confirm good receipt of the position report prior to the vessel being authorised to commence any fishing trip in the Area.

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<sup>8</sup> Conservation and Management Measure for the Management of Demersal Stocks in the Agreement Area (Management of Demersal Stocks).

**Scenario 2.2**

For ALCs that require the programming of ALCs, the CCPs shall do the needful to download the Data Network Identifiers (DNID), if needed, and proceed with the programming of the ALC based on procedures established by the service provider of the ALC. This will include automated or manual modification of reporting frequency as required by SIOFA CMMs. For ALCs that are programmed directly by their service providers, the CCPs shall submit the request for the automated reporting of VMS position reports to the ALC service provider, including the automated modification of position report once every hour when vessels are present in the Del Cano Rise, in accordance with paragraph 25 of [CMM 15\(2023\) \(Management of Demersal Stocks\)](#).<sup>9</sup> CCPs shall promptly inform the Secretariat once the ALC has been programmed as necessary. In either case, the Secretariat shall confirm good receipt of the position report prior to the vessel being authorised to commence any fishing trip in the Area.

27. The Secretariat may conduct additional ALC polling to query unscheduled position reports from ALCs installed on fishing vessels. These procedures shall depend on the ALC model and the applicable procedures as instructed by the ALC service provider. In cases where the Secretariat may not undertake polling due to limitations of the ALC, the CCPs shall, at the request of the Secretariat, submit such request to the ALC service provider. The Secretariat shall confirm the reception of VMS position reports to the concerned CCPs.
28. The SIOFA VMS shall include an automated alert to report when vessels enter or exit the Area.

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<sup>9</sup> Conservation and Management Measure for the Management of Demersal Stocks in the Agreement Area (Management of Demersal Stocks).

## 7. Obligations and roles of fishing vessels, CCPs, Service Level Provider(s) and the Secretariat

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### *Explanatory Notes*

These SSPs set out the obligations and roles of all parties involved in implementing the SIOFA VMS. They assume that:

- The Secretariat will take on the role of monitoring fishing activities in the Area against SIOFA CMMs, similar to a regional FMC. And;
  - That CCPs may have access to their vessels' data via the SIOFA VMS while their vessels are in the Agreement Area.
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### *Fishing Vessel Obligations*

29. To install, carry and continually operate ALC (s) that meet the standards set out in CMM 16 (2023), as well as these SSPs.
30. To provide access to the ALC and any parts thereof, including its power supplies, when requested by the inspecting party(ies).
31. To ensure that a vessel's ALC is protected from any attempt to tamper with its regular operation, data transmission or integrity of data transmitted in conformity with CMM 16 (2023) and these SSPs.

### *CCPs*

32. To ensure compliance by their vessels and operators with the provisions of CMM 16 (2023) and these SSPs.
33. To conduct and report results of [ALC Audits and]<sup>10</sup> ALC Inspections in accordance with procedures established for that purpose, including all information required by these SSPs.
34. To utilise the SIOFA VMS in accordance with applicable SIOFA CMMs[, notably CMM 02 (2023) and CMM 03 (2016)] and these SSPs.<sup>11</sup>
35. To provide the SIOFA Secretariat with details of the ALC attributed to a vessel on the SIOFA RAV, as required by paragraph 23.
36. To report to the Secretariat within a period of XX working days any registered ALC, including parts thereof, and the attributed vessel and vessel master, that are not in compliance with CMM 16 (2023) and these SSPs. These details shall include all details of non-compliance. The Secretariat will issue an acknowledgement of reception of each report, and in the absence of this acknowledgement within 72 hours of transmission, the CCP is required to re-transmit any unacknowledged report.

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<sup>10</sup> Applicable only if MOP decides CCPs will carry out ALC audits.

<sup>11</sup> Assuming that CCPs may have access to their vessels' data via the SIOFA VMS while their vessels are in the Agreement Area.

37. To apply sanctions and penalties sufficient to deter violations of applicable VMS requirements and standards and to report action taken and sanctions applied to ensure compliance.

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38. To ensure that data, once received by the SIOFA VMS, are not altered, manipulated, copied or interfered with in any way or used by anyone other than those authorised to do so, and in accordance with CMM 02 (2023) and CMM 03 (2016), or any such additional data security and confidentiality rules adopted by the Meeting of Parties for the purposes of the SIOFA VMS.
39. To provide a stable, reliable, fully maintained and supported SIOFA VMS that is in compliance with CMM 02 (2023) and CMM 03 (2016), or any such additional data security and confidentiality rules adopted by the Meeting of Parties for the purposes of the SIOFA VMS.
40. To develop and manage a *Service Level Agreement (SLA)* with a software provider of VMS service,<sup>12</sup> and support between the SIOFA Secretariat and a service provider

**41. SLAs will include, at minimum:**

- a. provisions for confidentiality and non-disclosure;
  - b. VMS services provided under the SLA;
  - c. service rates;
  - d. target response times for technical support;
  - e. help desk support;
  - f. billing
42. To utilise the SIOFA VMS in a manner consistent with the Agreement, CMMs and these SSPs.
  43. To administer the list of ALCs approved for use in the SIOFA VMS.
  44. To compile and report annually to the MoP, through the Compliance Committee, a list of registered ALCs by vessels and flags in compliance or non-compliance with CMM 2016 (2023) and these SSPs. The Secretariat will include in its annual report all details for non-compliant ALCs detected in the previous assessment period.
  45. To monitor and report annually to the Compliance Committee the performance of the SIOFA VMS and its application and, as necessary, make recommendations for improvement or modifications to the systems, these SSPs established to support it, in order to ensure the SIOFA VMS continues to function as a stable, secure, reliable, cost-effective, efficient, fully maintained and supported system.

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<sup>12</sup> Either as Software on-Premise (SaaP), Software as a Service (SaaS) or Hybrid SaaS, as the MoP may decide.

## 8. Data format for data transmission

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### *Explanatory Notes*

Paragraph 6 a) of CMM 16 (2023) allows for CPCPs to report VMS positions automatically to the Secretariat via their FMC. However, these provisions do not provide for the data format and standards that will allow these transfers to take place.

There are at least two globally accepted data formats for data exchange of fisheries information. These are the North Atlantic Format (NAF) and the Fisheries Language for Universal Exchange (UN/FLUX). NAF is recognised as an older format with a number of limitations, and therefore there are a number of ongoing endeavours to improve on NAF or develop new standards for the exchange of fisheries information altogether.

UN/FLUX is one such proposed standard that has already gained recognition by the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT), with more states and regional organisations adopting its use for VMS data exchange, among others. The most significant advantage of UN/FLUX over NAF is its ability to cater to other data types, such as inspection reports, catch and effort reporting, etc. It should be recognised, however, that the uptake of UN/FLUX is still relatively low, and implementation may present challenges to the Secretariat and CCPs.

Noting the above, the following SSPs recognise the two data formats and provide standards to enable CCPs to exchange data using those formats.

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46. Position report sent to the SIOFA VMS, in accordance with paragraph 6 a) shall be transferred to the SIOFA VMS using the following data formats;
  - a. The North Atlantic Format (NAF) ([Annex 2](#))
  - b. Fisheries Language for Universal Exchange, (UN/FLUX)
47. Vessel position reports sent using NAF shall include, at minimum, information required in paragraph 1 f) of CMM 16 (2023). It shall also follow the structure of NAF messages provided in [Annex 2](#).
48. The transfer of NAF data shall be sent using one of the following application layers (secured connection):
  - a. Hypertext Transfer Protocol Secure (HTTPS)
  - b. File Transfer Protocol (FTP) with Transport Layer Security (TLS) (FTPS)
49. VMS position reports sent using FLUX shall adhere to the specifications of the Flux P1000-1 (General Principles) and Flux P1000-7 (Vessel Position Domain).<sup>13</sup>

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<sup>13</sup> <https://unece.org/trade/uncefact/unflux>

## 9. Manual Position Reporting Standard

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### *Explanatory Notes*

Paragraphs 13-17 already prescribe an elaborate set of procedures in the event of non-reception of programmed position reports. However, these paragraphs do not provide the agreed medium for manual reporting, leaving a number of possibilities to be explored once the VMS system is acquired. This would therefore default to the manual positions being sent via email to the Secretariat, which shall do the needful to capture those positions manually in the VMS system. While specific SSPs may not be necessary for other mediums or modalities at this point, they may be explored once the SIOFA VMS system is acquired.

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50. Manual positions sent to the SIOFA VMS pursuant to Paragraphs 13 – 17 of CMM 16 (2023) shall be sent via email to the Secretariat, which shall do the needful to record that information in the SIOFA VMS. These manual positions shall be clearly identified in the SIOFA VMS as being manual reports

## Annex 1: Type Approval Process

This annex proposes a type approval process for the inclusion of ALC on the list of approved ALCs.

### *Introduction*

As proposed in the SSPs for the SIOFA VMS, the Meeting of the Parties (MoP) [shall] also adopt a *type approval process* that will describe the procedure of testing and verification, which shall lead to an ALC being approved for use by vessels on the SIOFA RAV and subsequent listing on the list of approved RAV. The proposed type approval process is drawn from the *FAO Technical Guidelines for Responsible Fisheries - Fishing Operations - 1 Suppl. 1 - 1. Vessel Monitoring Systems*, adapted for the SIOFA context. The basis of the tests are the requirements outlined in CMM 2016 (2023) and its Standards, Specifications and Procedures (SSPs).

The Type approval Process is presented as a questionnaire, where the ALC should comply with all of the requirements therein.

### *Type Approval Questionnaire*

1. Is the ALC's unique identifier stored in non-volatile memory which constitutes part of the system's unmodifiable firmware?
2. Does the ALC have a clearly visible, irremovable, irreplaceable and unmodifiable external serial number or other unique identifier?
3. Is the ALC capable of detecting that it is incapable of sending or receiving messages because of antenna blockage or disconnection?
4. Is the entire communication sequence from the ALC to the VMS monitoring authority of the CCP or the Secretariat, including relay by the satellite service provider, secure and immune to interception, under reasonable circumstances?
5. Does the satellite system employed offer full, continuous coverage, at minimum, within the SIOFA Agreement Area?
6. Are the positions received accurate within the specified tolerance of CMM 16 (2023)?
7. Does the received position reports contain all data required by paragraph 1 f) of CMM 16 (2023)?
8. Is message delivery completed within 1 hour after being emitted by the ALC?
9. Is transmission of position reports unobservable aboard the vessel, under normal circumstances?
10. Is the ALC sufficiently protected against having the automated position reporting function altered or disabled, other than by the CCPs FMC or the Secretariat?
11. Is the ALC capable of providing independently calculated speed and course?
12. Can the ALC identify and alert an interrupted service when it has been out of service for more than 15 minutes due to an abrupt power cut or due to incapability of sending or receiving messages because of antenna blockage or disconnection?
13. Can the frequency of position reports be altered remotely or automatically based on geofencing conditions?

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14. Does the ALC respond automatically and immediately to a remote request for a position?

***Positive answers to all of the above questions would certify that an ALC met the necessary standards for inclusion on the list of approved ALCs.***



## Annex 2: Description of the North Atlantic Format (NAF)<sup>14</sup>

### Data Elements of NAF Messages

All NAF Messages sent to the SIOFA VMS shall contain, at minimum, the information required in paragraph 1. f) of CMM 16 (2023). The general structure and data elements are as below

Data Element	Field Code	Definition	Contents
Start Record	SR	Defines the start of the message structure.	No Data
Address	AD	Indicates the destination. Provider and Secretariat to define code for SIOFA VMS	3-Alpha code (ISO-3166)
From	FR	3-alpha code describing the country which FMC is submitting the report.	3-Alpha code (ISO-3166)
Sequence Number	SQ	Message Sequence Number	0-999999
Type of Message	TM	Letter code of the type of message	POS = position report, ENT = entry report, EXI = exit report
Radio Call Sign (ICRS)	RC	Vessel detail: international radio call sign of the vessel	IRCS
Vessel Name	NA	Name of the vessel	ISO 8859.1 characters
Latitude	LT	Latitude expressed in degrees and decimals (WGS-84)	+(-)DD.ddd
Longitude	LG	Longitude expressed in degrees and decimals (WGS-84)	+(-)DD.ddd
Vessel Speed	SP	Speed of the vessel	Knots * 10
Vessel Course	CO	Heading of the vessel in degrees	1-360
Flag State	FS	State of registration of the vessel.	3-Alpha code (ISO-3166)
Date	DA	Date of reported event	YYYYMMDD
Time	TI	Time of reported event	HHMM
End of Record	ER	Indicates the end of the message/report	No Data

### Structure of the position report

Each data transmission shall be structured as follows:

- double slash (//) and the characters 'SR' indicate the start of a message,
- a double slash (//) and field code indicate the start of a data element,
- a single slash (/) separates the field code and the data,
- pairs of data are separated by space,
- the characters 'ER' and a double slash (//) indicate the end of a record.

<sup>14</sup> <https://www.naf-format.org/index.htm>

## Appendix 1: Summary of Key Decision Points for the Proposed Standards, Specifications and Procedures (SSPs) for the SIOFA VMS.

SSP 6: To propose the number of days for CCPs to provide ALC details specified in paragraph 7 for each vessel registered on the SIOFA RAV, after the entry into force of CMM 16 (2023).

SSP 8: To agree on the confidentiality level for ALC details, submitted to the Secretariat

SSP 12: To agree which entity shall carry out the ALC audits

SSP 13: To indicate level of ALC audits to be carried out annually by designated entity

Footnote 7 of SSP25: Definition of inspecting party (ies) to include an authorised inspection officer as defined in CMM 14 (2021), or an inspector authorised pursuant to CMM 08 (2020).

SSP 26: To agree which entity shall be responsible for the programming and polling of ALCs

SSP 33: Related to decision point in SSP 12

SSP 36: to agree on the time period for CCPs to report to the Secretariat observed instances of Compliance or Non-Compliance by ALCs attributed to a vessel entered onto the SIOFA RAV.