

CMM 06-2018

Conservation and Management Measure for the Establishment of the Vessel Monitoring System in the SPRFMO Convention Area

(Supersedes CMM 06-2017)

The Commission of the South Pacific Regional Fisheries Management Organisation;

RECALLING the relevant provisions of the Convention on the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean, in particular Articles 25 (1)(c) and 27 (1)(a);

NOTING the importance of the vessel monitoring system as a tool to effectively support the principles and measures for the conservation and management of fisheries resources within the Convention Area;

MINDFUL of the rights and obligations of Commission Members and Cooperating non-Contracting Parties (CNCs) in promoting the effective implementation of Conservation and Management Measures (CMMs) adopted by the Commission;

FURTHER MINDFUL of the key principles upon which the vessel monitoring system is based, including the confidentiality and security of information handled by the system, and its efficiency, cost-effectiveness and flexibility;

ADOPTS the following CMM to provide for the implementation of the SPRFMO Vessel Monitoring System:

A Commission Vessel Monitoring System

The Commission Vessel Monitoring System ("Commission VMS") shall be fully operational after its official acceptance by the Commission.

1. The Commission VMS shall apply to vessels included in the Commission Record of Vessels Authorised to Fish in the SPRFMO Convention Area. It shall cover the area as defined in Article 5 of the Convention on the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean and have a buffer zone of 100 nautical miles outside the Convention Area. The buffer zone shall not apply to vessels flagged to adjacent coastal States fishing in waters under their jurisdiction.

Definitions

2. For the purposes of interpreting and implementing these procedures, the following definitions shall apply:
 - a) "Convention" means the Convention on the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean;
 - b) "Convention Area" means the Area to which this Convention applies in accordance with Article 5 of the Convention;
 - c) "Commission" means the Commission of the South Pacific Regional Fisheries Management Organisation established by Article 6 of the Convention;
 - d) "Automatic Satellite Position Device/Automatic Location Communicator" (ALC) means a near real-time satellite position fixing transceiver;
 - e) "Commission VMS" means the SPRFMO Vessel Monitoring System that is established under this CMM;



- f) “Member/CNCP VMS” means the domestic Vessel Monitoring Systems that each Member and CNCP are obliged to develop in accordance with this CMM;
- g) “Fisheries Monitoring Centre” (FMC) means the government/fishing entity authority or agency responsible for managing VMS for its flagged fishing vessels.

Purpose

- 3. The purpose of the Commission VMS is to continuously monitor the movements and activity of fishing vessels that are on the Commission Record of Vessels and are authorised by Members or CNCPs to fish for fisheries resources in the SPRFMO Convention Area in a cost-effective manner in order to, *inter alia*, support the implementation of SPRFMO CMMs.

Applicability

- 4. The Commission VMS shall apply to all fishing vessels as defined in Article 1 (1)(h) of the Convention. The system shall operate on a permanent basis, or until decided otherwise by the Commission, in the area defined in paragraph 2 of this CMM.
- 5. Any Member or CNCP may request, for the Commission's consideration and approval that waters under its jurisdiction be included within the area covered by the Commission VMS. Necessary expenses incurred in the inclusion of such area into the Commission VMS shall be borne by the Member or CNCP that made the request.

Nature and Specification of the Commission VMS

- 6. The Commission VMS shall be administered by the Secretariat under the guidance of the Commission.
- 7. Data collected by the Commission VMS shall be securely stored by the Secretariat indefinitely and shall be used by the Members and CNCPs, in accordance with the provisions of this CMM, to achieve compliance with CMMs. VMS data may also be used by the Scientific Committee for analysis to support specific scientific advice requested by the Commission for sound fisheries management decision-making in the Convention Area.
- 8. Without prejudice to the principle of flag State responsibilities and duties, each Member and CNCP shall require vessels flying its flag to report VMS data automatically either:
 - a) to the Secretariat via their Member or CNCP's FMC; or
 - b) simultaneously to both the Secretariat and its FMC.
- 9. Each Member and CNCP shall notify the Secretariat of its chosen means of reporting (i.e., option (a) or (b) under paragraph 9 of this CMM) before the Commission VMS is activated.
- 10. Members and CNCPs that choose to report under option (a) of paragraph 9 shall automatically forward VMS reports to the Secretariat at an interval not less frequent than hourly.
- 11. All Member and CNCP fishing vessels required to report to the Commission VMS shall use a functioning ALC that complies with the Commission's minimum standards for ALCs in Annex 1.
- 12. All Members, CNCPs, the Secretariat, the service provider and the Scientific Committee and its subsidiary bodies shall manage VMS data in accordance with the Security and Confidentiality Requirements in Annex 2 of this CMM and the Maintenance of Confidentiality Requirements of Paragraph 6 of CMM 02-2018 (Data Standards).

Procedure for Manual Reporting

- 13. In the event of failure of automatic reporting, the procedure outlined in Annex 3 of this CMM shall apply.



Measures to Prevent Tampering with ALCs

14. It shall be prohibited to destroy, damage, switch off, render inoperative or otherwise interfere with the ALC unless the competent authorities of the Member or CNCP have authorised its repair or replacement.
15. Where a Member or CNCP has reason to suspect that an ALC does not meet the requirements of Annex 1, or has been tampered with in any way, it shall immediately notify the Secretariat and:
 - a) in the event that the ALC is installed onboard a vessel flying the flag of another Member or CNCP, the Member or CNCP shall notify the Member or CNCP concerned;
 - b) in the event the vessel is flagged to the Member or CNCP, it shall:
 - i. investigate the suspected breach of this measure as soon as possible;
 - ii. depending on the outcome of the investigation, if necessary suspend the vessel from fishing until an ALC that meets the specifications outlined in Annex 1 is operational onboard the vessel; and
 - iii. communicate actions taken to the Commission, including the outcome of the investigation.
16. Members and CNCPs shall ensure that vessels flying their flag install and use ALCs which fulfil the conditions of Annex 4 of this CMM.
17. Members and CNCPs shall report in the annual Implementation Report of paragraph 5 of CMM 10-2019 (CMS) the methods used to prevent tampering by their individual vessels. Such methods may include the use of ALCs sealed by the Member or CNCP or manufacturer, tamper-evident external or internal seals, or other methods. The Commission shall review the effectiveness of the tampering methods applied by the vessels of Members and CNCPs at the latest at its annual meeting in 2020 in accordance with paragraph 31 of this CMM.
18. Members and CNCPs shall report on their implementation of paragraph 17 through the Implementation Report of paragraph 5 of CMM 10-2019 (CMS), including the brand, model, security features, e.g. "tamper-evident seals installed", and identification of the ALC approved for use for each vessel flying its flag.
19. Nothing in this measure shall prevent a Member or CNCP from applying additional or more stringent measures to prevent tampering of ALCs onboard vessels flying its flag.

Use and Release of VMS Data Requiring the Permission of the Member or CNCP

20. All requests for access to VMS data must be made to the Secretariat by electronic means by a VMS Point of Contact as specified in paragraph 7 of Annex 2 of this CMM. Other than the specific purposes set out in paragraphs 23 to 27 of this CMM, the Secretariat shall only provide VMS data to a requesting Member or CNCP where the VMS data relates to vessels flagged to other Members or CNCPs that have provided prior written consent through their VMS Point of Contact for the data to be shared. The Secretariat shall only provide VMS data in accordance with the Security and Confidentiality Requirements at Annex 2 of this CMM.
21. A Member or CNCP may request VMS data for their own flagged vessels from the Secretariat.



Use and Release of VMS Data not Requiring the Consent of the Member or CNCP

22. Upon request of a Member or CNCP, as applicable, the Secretariat shall only provide VMS data in accordance with the procedure of Paragraphs 24 to 27 and Annex 5 of this CMM without the permission of the Member or CNCP for the exclusive purposes of:
 - a) planning for active surveillance operations and/or inspections at sea within 72 hours of the expected start of the operations;
 - b) active surveillance operations and/or inspections at sea;
 - c) supporting search and rescue activities undertaken by a competent Maritime Rescue Coordination Centre (MRCC) subject to the terms of any Arrangement between the Secretariat and the competent MRCC.
23. For the purpose of implementing Paragraph 23 a) and b):
 - a) Inspections at sea will be undertaken in accordance with CMM 11-2015 (Boarding and Inspection);
 - b) each Member or CNCP, as applicable, shall only make available such VMS data to a Member authorised inspector, and any other government officials for whom it is deemed necessary to access the data;
 - c) VMS data relevant to the planned or active surveillance operations and/or inspections at sea shall be transmitted by the VMS Point of Contact of the Member or CNCP, as applicable, to the inspectors and government officials in charge of the operations referred to in paragraph 23 a) and b);
 - d) Members and CNCPs, as applicable, shall ensure that such inspectors and government officials keep the data confidential and only use the data for the purposes described in paragraph 23 a) and b);
 - e) Members may retain VMS data provided by the Secretariat for the purposes described in paragraph 23 a) and b) until 24 hours after the time that the active operation has concluded. Except in the circumstances outlined in paragraph 24 f), Members shall submit a written confirmation to the Secretariat of the deletion of the VMS data immediately after the 24 hours' period;
 - f) Members and CNCPs' authorised inspectors and government officials authorities may retain VMS data provided by the Secretariat for the purposes described in paragraph 23 a) and b) for longer than the periods specified in paragraph 24 e) only if it is part of an investigation, judicial or administrative proceeding of an alleged violation of the provisions of the Convention, any CMMs or decisions adopted by the Commission, or domestic laws and regulations. Members shall inform the Secretariat of the purposes and expected timing of the additional period of data retention.
24. For the purpose of paragraph 23 a), Members requesting VMS data shall provide the Secretariat the geographic area of the planned surveillance and/or inspection activity. In this case, Members authorised inspectors and government officials shall advise the Secretariat at least 72 hours in advance of the planned commencement of Monitoring, Control and Surveillance (MCS) activities in the notified geographic area of the high seas areas of the Convention Area. In the event that the MCS activities will no longer take place or if the notified geographic area of the high seas has changed, the Secretariat will be promptly notified.
25. For the purpose of paragraph 23 b), the Secretariat shall provide VMS data for vessels detected during surveillance, and/or inspection activity. Members conducting the active surveillance and/or inspection activity shall provide the Secretariat and the VMS Point of Contact of the Member or CNCP with a report including the name of the vessel or aircraft on active surveillance and/or inspection activity. This information shall be made available without undue delay after the surveillance and/or inspection activities are complete.
26. For the purpose of paragraph 23 c), upon the request of a Member or CNCP, the Secretariat shall provide VMS data without the permission of the Member or CNCP for the purposes of supporting search and rescue activities undertaken by a competent MRCC subject to the terms of an arrangement between the



Secretariat and the competent MRCC. The Member or CNCP requesting the information shall ensure that the data will only be used only for the purposes described in this paragraph.

27. The Commission shall review paragraph 23 at the latest by its annual meeting in 2020 to assess the enhanced use of the Commission VMS, as appropriate, as a complementary tool to promote further cooperation amongst Members and CNCP for the purposes of ensuring the long term conservation and sustainable use of the fishery resources in accordance with the provisions of the Convention.
28. Paragraphs 23 to 27 shall be reviewed by the Commission when the Commission adopts a specific SPRFMO high seas inspection regime.

Review

29. At each annual meeting of the Commission, the Secretariat shall provide the Commission with a report on the implementation and operation of the Commission VMS.
30. The Commission shall conduct a review of the implementation of the Commission VMS at its annual meeting in 2020 and shall consider its efficiency and effectiveness and consider further improvements to the system as required.



ANNEX 1

Minimum Standards for Automatic Location Communicators (ALCs) used in the Commission Vessel Monitoring System

1. The ALC shall continuously, automatically and independently of any intervention by the vessel communicate the following data when operating in the area defined in paragraph 2 of this CMM with at least the level of accuracy specified at paragraph 7 of this Annex and obtained by a satellite-based positioning system:

Category	Data Element	Remarks
Vessel registration	Static unique vessel identifier	For example, country code followed by national vessel registration number
Activity detail	Latitude	Position latitude
Activity detail	Longitude	Position longitude
Message detail	Date	Position date in UTC
Message detail	Time	Position time in UTC

2. ALCs fitted to fishing vessels must be capable of transmitting data at least every 15 minutes.
3. The Member or CNCP shall ensure that its FMC receives VMS positions at least with the frequency adopted according to this CMM and shall be able to request the VMS information at a higher frequency.
4. The Member or CNCP shall maintain a record of all vessel position information reported while these vessels are operational in the Convention Area, such that this information may be used to document vessel activity in the Convention Area, and to validate fishing position information provided by those vessels.
5. Under normal satellite navigation operating conditions, positions derived from the data forwarded must be accurate to within 100 metres.
6. The ALC and/or forwarding service provider must be able to support the ability for data to be sent to multiple independent destinations.
7. Members and CNCPs shall ensure that VMS position reports are reported by each of their vessels
 - a) at least once every hour if fishing using benthic or benthic-pelagic trawling¹, bottom long-line gear or potting or if operating within 20 nm of an EEZ boundary;
 - b) at least once every four hours in other circumstances²;
8. The Commission shall review the reporting frequency applicable to vessels fishing in the Convention Area at the latest at its annual meeting in 2020.

¹ Benthic-pelagic trawling is interpreted here to mean trawling with a mid-water net where the net has a likelihood of coming into contact with the seabed at any time during the trawling operation.

² In February 2013 China advised that it was not able to report more frequently than twice daily according to domestic regulation. In January 2018, China advised that it is now able to report as frequently as every four hours according to current domestic legislation.



ANNEX 2

Security and Confidentiality Requirements

Security Provisions Applicable to all Members, CNCPs and the Secretariat

1. The provisions of this Annex shall apply to all VMS data received pursuant to this CMM.
2. All VMS data received by the Commission VMS shall be treated as confidential information.
3. All Members, CNCPs, the Secretariat and the Commission's VMS provider shall ensure the secure treatment of VMS data in their respective electronic data processing facilities, in particular where the processing involves transmission over a network.
4. All Members, CNCPs and the Secretariat shall implement appropriate technical and organisational measures to protect reports and messages against accidental or unlawful destruction or accidental loss, alteration, unauthorised disclosure or access, and against all inappropriate forms of processing. The following features shall be mandatory:
 - a) System access control: the system has to withstand a break-in attempt from unauthorised persons;
 - b) Authenticity and data access control: the system has to be able to limit the access of authorised parties to only the data necessary for their task, via a flexible user identification and password mechanism;
 - c) VMS data must be securely communicated: communication between Members, CNCPs and the Secretariat or the VMS provider for the purpose of this CMM shall use secure Internet protocols SSL, DES or verified certificates obtained from the Secretariat;
 - d) Data security: all VMS data that enter the system must be securely stored for the required time, and shall not be tampered with;
 - e) The Secretariat shall design security procedures to address access to the system (both hardware and software), system administration and maintenance, backup and general usage of the system for consideration by the Commission.
5. Each Member, CNCP and the Secretariat shall nominate a security system administrator. The security system administrator shall review the log files generated by the software for which they are responsible, properly maintain the system security for which they are responsible, restrict access to the system for which they are responsible as deemed needed and, in the case of Members or CNCPs, also act as a liaison with the Secretariat in order to solve security matters.
6. Members and CNCPs as applicable shall submit a written confirmation of the deletion of the VMS data in accordance with this CMM. The Secretariat shall take all the necessary steps to ensure that the requirements pertaining to the deletion of VMS data handled by the Secretariat are complied with.
7. Each Member and CNCP shall designate a Point of Contact for the purposes of any communication regarding the VMS system ("VMS Point of Contact"). Any subsequent changes to the contact information shall be notified to the Secretariat within 21 days after such changes take effect. The Secretariat shall promptly notify Members and CNCPs of any such changes.
8. The Secretariat shall establish and maintain a register of Points of Contact based on the information submitted by the Members and CNCPs. The register and any subsequent changes shall be published promptly on the "Members only" area of the SPRFMO website.
9. The Secretariat shall inform all Members and CNCPs of the measures taken by the Secretariat to comply with these security and confidentiality requirement provisions at the annual meeting following the establishment of the Commission VMS. Such measures shall ensure a level of security appropriate to the risks represented by the processing of VMS data.



10. Submission of VMS data for the purpose of this CMM shall use cryptographic protocols to ensure secure communications.
11. The Security System Administrator of the Secretariat shall review the log files generated by the software, properly maintain the system security, and restrict access to the system as deemed necessary. The Security System Administrator shall also act as a liaison between the VMS Point of Contact and the Secretariat in order to resolve security matters.



ANNEX 3

SPRFMO Rules on the manual reporting in the SPRFMO Convention Area

1. In the event of non-reception of four consecutive, expected programmed VMS positions, and where the Secretariat has exhausted all reasonable steps³ to re-establish normal automatic reception of VMS positions, the Secretariat shall notify the Member or CNCP whose flag the vessel is flying. That Member or CNCP shall immediately direct the vessel Master to begin manual reporting.
2. In accordance with the chosen means of reporting for VMS data of paragraph 10 of this CMM, the manual report shall be sent by the vessel to the Secretariat via their FMC, or simultaneously to both the Secretariat and its FMC as applicable.
3. Following the receipt of a direction from a Member or CNCP to a vessel to begin manually reporting in accordance with paragraph 1 of this Annex, the Member or CNCP of the vessel shall ensure that the vessel Master manually reports its position every 4 hours. If automatic reporting to the SPRFMO VMS has not been re-established within 60 days of the commencement of manual reporting that Member or CNCP shall order the vessel to cease fishing, stow all fishing gear and return immediately to port in order to undertake repairs.
4. The vessel may recommence fishing in the SPRFMO Convention Area only when the ALC has been confirmed as operational by the Secretariat. Four consecutive, programmed VMS positions must have been received by the Secretariat to confirm that the ALC/Mobile Transceiver Unit is fully operational.
5. The format for manual reports to be used is as below. Vessels are encouraged to use email as the primary means of communication and shall send these messages to vms@sprfmo.int.
6. The standard format for manual position reporting in the event of ALC malfunction or failure shall be as follows:
 - a) IMO number (if applicable)
 - b) International Radio Call Sign
 - c) Vessel Name
 - d) Vessel Master's name
 - e) Position Date (UTC)
 - f) Position Time (UTC)
 - g) Latitude (with at least the level of accuracy specified at paragraph 5 of Annex 1)
 - h) Longitude (with at least the level of accuracy specified at paragraph 5 of Annex 1)
 - i) Activity (Fishing/Transit/Transshipping)
7. Members and CNCPs are encouraged to carry more than one ALC when operating in the SPRFMO Convention Area in order to avoid the need to manually report if the primary ALC fails.
8. The Secretariat shall publicise vessels that are reporting in accordance with this Annex on the SPRFMO Website.

³ The Member or CNCP, in coordination with the Secretariat and through communication with the vessel master as appropriate, will endeavour to re-establish normal automatic reception of VMS positions. If such efforts reveal that the vessel is successfully reporting to the Member or CNCP's VMS (indicating that the vessel's ALC hardware is functional), the Secretariat, in coordination with the Member or CNCP will take additional steps to re-establish automatic reporting to the Commission VMS.



ANNEX 4

Minimum Standards to prevent tampering with ALC Units Automatic Location Communicators (ALCs)

1. ALCs fitted to fishing vessels must be protected so as to preserve the security and integrity of data referred to in paragraph 1 of Annex 1 in accordance to the provisions of this Annex.
2. ALCs must be of a type and configuration that prevent the input or output of false positions, are not capable of being over-ridden, whether manually, electronically or otherwise and are capable of detecting and transmitting satellite alerts in the case of a tampering event.
3. It must not be reasonably possible for anyone, other than the FMC, to alter any of the VMS data stored in the ALC, including the frequency of position reporting to the FMC.
4. Storage of information within the ALC must be safe, secure and integrated under normal operating conditions.
5. Any features built into the ALC or terminal software to assist with servicing shall not allow unauthorised access to any areas of the ALC that could potentially compromise the operation of the VMS.
6. The satellite navigation decoder and transmitter shall be fully integrated and housed in the same tamper-proof physical enclosure.
7. In the case that the antenna is mounted separately from the physical enclosure, a single common antenna shall be used for both satellite navigation decoder and transmitter, and the physical enclosure shall be connected using a single length of unbroken cable to the antenna.
8. All ALCs shall be installed on vessels in accordance with their manufacturer's specifications and applicable standards.



ANNEX 5

Process for the Use and Release of VMS Data

1. A Member or CNCP or as established in the arrangement between the Secretariat and the competent MRCC seeking access to Commission VMS data for the purposes outlined in paragraphs 23 to 27 of this CMM shall forward a request to the Secretariat, through its VMS Point(s) of Contact, indicating the purpose(s) for which the data is sought and the time period covered by the VMS data. The request shall indicate the commitment from the Member or CNCP to respect the Security and Confidentiality requirements of Annex 2 of this CMM as applicable. The request must be submitted at least 5 working days in advance of the intended use except for the purposes of paragraph 23 of this CMM.

Use and Release of VMS Data Requiring the Permission of the Member or CNCP

2. For the purposes of paragraphs 21 and 22 of this CMM, the Secretariat shall immediately forward the request to the relevant VMS Point(s) of Contact from whom access to VMS data is requested. The release of the VMS data to the requesting Member or CNCP shall only be permitted with approval from the Member or CNCP who owns the VMS data. A Member or CNCP who refuses the request for VMS shall send the reasons for the refusal in writing to the Secretariat within 15 days of the communication of the request by the Secretariat.
3. Members and CNCPs may restrict access to their VMS data to exclude fleets, individual vessels, geographical areas, time periods and others subject to the capacity of the Secretariat and/or their contracted VMS provider to filter the data.
4. Members or CNCPs shall only use the VMS data for the purposes indicated in the request and which are agreed by the other Member or CNCP and shall not disclose the data in full or in part to any third party. Any additional restrictions for VMS data access established by Members or CNCPs in accordance with paragraph 3 of this Annex shall also be complied with.

Use and Release of VMS Data Without the Permission of the Member or CNCP

5. For the purposes of paragraphs 23 to 27 of this CMM, upon receipt of a request for VMS data, the Secretariat shall immediately inform the VMS Points of Contact for which access to VMS data has been requested:
 - a) The requesting Member or MRCC;
 - b) The date the request was made to the Secretariat;
 - c) The proposed purpose(s) for the use of that VMS data;
 - d) The anticipated length of time that the VMS data will be required.
6. In accordance with paragraph 24 f) of this CMM, in the event of retention of the VMS data for longer periods than specified in the request, the Secretariat shall immediately inform the relevant VMS Points of Contact of the purposes of the retention and its expected timing.
7. The Secretariat shall immediately notify the relevant VMS Points of Contact when the requesting Member or CNCPs has ceased their use of that VMS data.
8. The Secretariat shall maintain a record of the requests received regarding use and release of VMS data for the purposes of paragraph 23 of this CMM including the requesting member, date of the request, purpose and length of time for which the data was required. The Secretariat shall include in the report on the implementation and operation of the Commission VMS of paragraph 30 of this CMM information on the number and purposes of VMS data access requests received.