

8TH MEETING OF THE COMPLIANCE AND TECHNICAL COMMITTEE (CTC)

Held remotely, 21 to 23 January 2021

CTC 8 – Doc 08 rev1

Commission VMS Implementation and Operation Report

Secretariat

This report is provided under Paragraph 29 of CMM 06-2018 (VMS) which states: “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”.

1. Introduction

For authorised vessels operating in the SPRFMO Convention Area, Article 27(1)(a) of the SPRFMO Convention requires that the Commission establish appropriate cooperative procedures for “... the reporting of vessel movements and activities by a satellite vessel monitoring system that shall be designed to ensure the integrity and security of near real-time transmissions, including through the possibility of direct and simultaneous transmissions, to the Commission and flag State”.

The purpose of the Commission VMS is set out in paragraph 4 of CMM 06-2020 “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”.

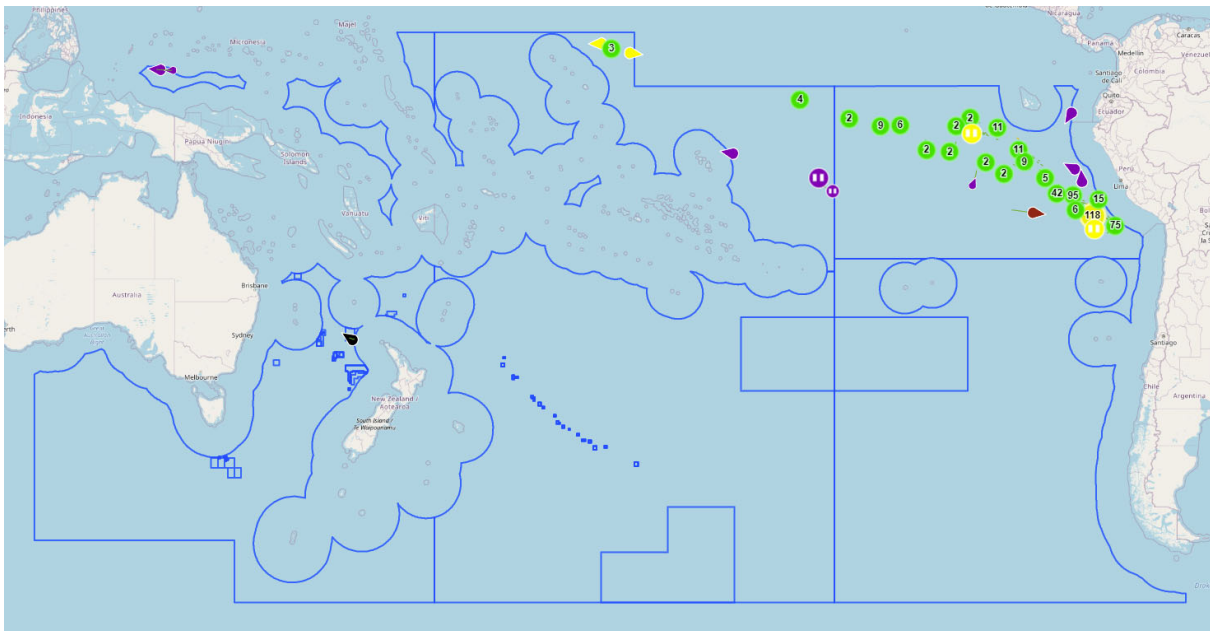


Figure 1 SPRFMO Convention Area in THEMIS (snapshot taken on 03 December 2020)



2. State of Reporting

Under Paragraph 7 of CMM 06-2020 each Member and CNCP shall designate a Point of Contact for the purposes of any communication regarding the VMS system (including data requests). These Points of Contact are listed on the [VMS Point of Contact](#) page on the website. All Members and CNCPs (except for one Member with no vessels) have provided a Point of Contact.

VMS Point of Contact Paragraph 9 of CMM 06-2020 requires vessels flying its flag to report to the Commission VMS automatically either:

- (a) to the Secretariat via their Member or CNCP's FMC; or
- (b) simultaneously to both the Secretariat and its FMC.

Table 1 below gives an overview of the type of reporting that each Member and CNCP has chosen as well as the number of vessels that reported their presence inside the SPRFMO Convention Area during 2020.

Table 1: The current state of reporting for SPRFMO Members and CNCPs

Flag	Type of Reporting	Number of Vessels	
		2019	2020
Australia	Simultaneous	3	1
Chile	Via FMC	3	nil
China	Via FMC	429	521
Cook Islands	Via FMC (FFA)	6	5
Cuba	-	nil	nil
Curaçao	Via FMC	nil	1
Ecuador	Simultaneous	1	nil
EU	Via FMC	4	1
Faroe Islands	-	nil	nil
Korea	Via FMC	19	<u>413</u>
Liberia	Via FMC	7	7
New Zealand	Simultaneous	12	7
Panama	Via FMC	46	33
Peru	Via FMC	3	3
Russian Federation	Via FMC	1	1
Chinese Taipei	Via FMC	12	6
USA	-	nil	nil
Vanuatu	Via FMC	nil	nil
Total		546	<u>59889</u>

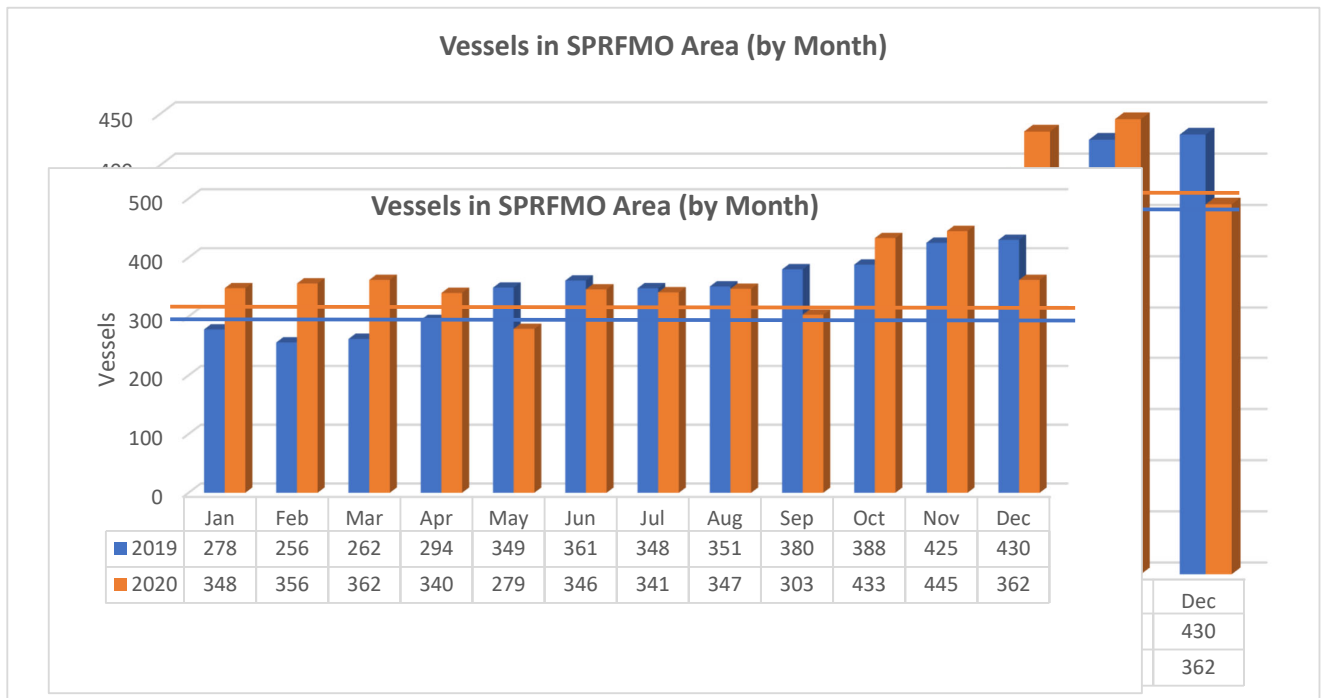


Figure 2: Number of Vessels in SPRFMO Area in 2019 and 2020

(*December 2020 figure as of 22nd December).

Figure 2 shows that on average around 344 vessels in 2019 (blue line) and 354 vessels in 2020 (orange line) report to the Commission VMS each month.

3. Operation of the Commission VMS

3.1. Personnel

Mr Pablo Ortiz Lima, who was appointed as the Compliance Manager effective 1 November 2019, finished his contract on 30 June 2020. Mr John Cheva, the IT Manager, supported the VMS until the arrival of the permanent Compliance Manager, Mr Randy Jenkins on 1 November 2020.

3.2. Day to day work processes

The Secretariat monitor the VMS system daily, including:

- Investigating system generated alerts such as:
 - Fishing without authorisation
 - New beacon identified, not yet associated with a vessel on the SPRFMO Record of Vessels
 - Bottom fishing outside open management areas
- Monitoring activities and the number of vessels reporting to the Commission VMS
- Responding to requests for VMS data
- Activating and de-activating polling for vessels¹ using Simultaneous reporting
- Checking of bi-monthly invoices covering charges for DNID Upload, Polling, Periodic Rate Change and Position Reports for vessels belonging to Australia, Ecuador, and New Zealand

¹ For Australia, Ecuador, and New Zealand



4. Requests for VMS data

Under CMM 06-2020 VMS data may be obtained by a Member or CNCP for their own vessels (Paragraph 22), or under certain circumstances, either requiring or not requiring the consent of the Member or CNCP of the vessels involved.

Without the permission of the Member or CNCP, the Secretariat can provide VMS data for the exclusive purposes of:

- Planning for active surveillance operations (CMM 06-2020 Paragraph 24a)
- Active surveillance operations and/or inspections at sea (CMM 06-2020 Paragraph 24b)
- Supporting search and rescue activities subject to the terms of an arrangement between the Secretariat and the competent MRCC (CMM 06-2020 Paragraph 24b)

The Secretariat can also 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 (Paragraph 21).

A template for data release under Paragraphs 21, 22 and 24 is available on the [non-public section](#) of the SPRFMO website.

VMS data may also be used by the Scientific Committee for analysis to support specific scientific advice requested by the Commission. A template for such requests is available on the [website](#) (Paragraph 8)

There were no requests for access to VMS data during the year 2020.

5. Performance of the Commission VMS Service Provider

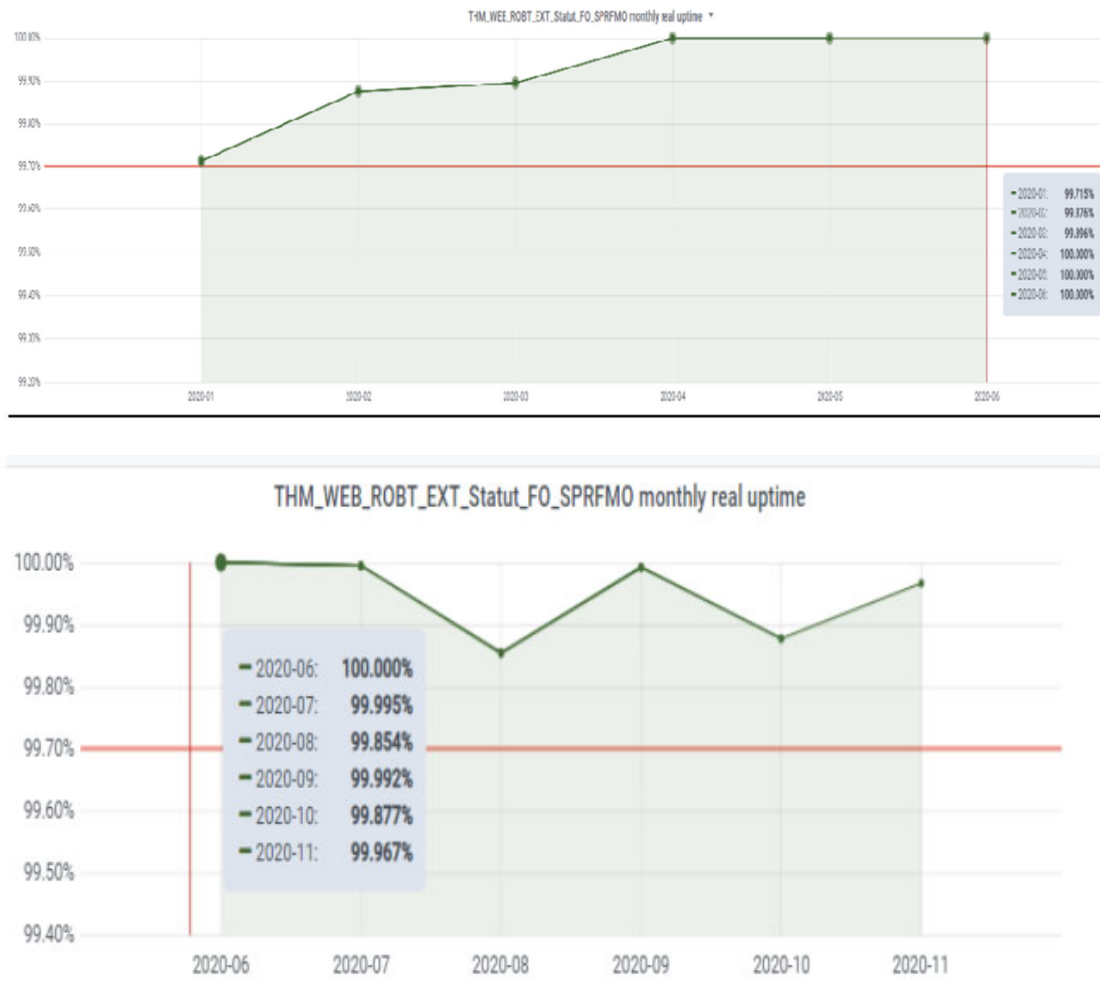
The Commission VMS service provider is the CLS Group.

The Secretariat considers that the THEMIS interface is generally usable. However, we have identified several challenges in some of our routine queries, making access to some of the data difficult. These have been logged with CLS. Generally, CLS representatives have been responsive to our requests and diligent with regards to informing users about planned system outages. As noted in Section 7, CLS technical support (provided by CLS Oceania) has been necessary to resolve several VMS issues that became evident during 2020, and which were unable to be resolved using Secretariat accessible THEMIS functions.

According to Figure 3 below the service performance level delivered by CLS, and after considering planned outages, has consistently exceeded the availability threshold of 99.5%.



Figure 3 SPRFMO Operating Reports for the period Jan – Nov 2020



6. Information on issues encountered

Several issues have been encountered in the implementation of the Commission VMS during 2020 which have meant, that for one reason or another, it has not been possible to continuously monitor the movements and activity of all fishing vessels that are on the SPRFMO Record of Vessels. For example:

- On at least 6 occasions between July and December 2020, the VMS data from an entire fleet disappeared from the Commission VMS for periods of up to 5 days. Once the problem has been reported the problem has been rectified and the missing data provided, but in the meantime, it was not possible for the vessels to be continuously monitored. This is believed to be due to high demand on the VMS software at the relevant FMC causing system failures or outages.
- On at least 2 occasions, and for several days, the Commission VMS was sent VMS data from two different authorised vessels identified with the same beacon. This led to the appearance on the VMS system of a vessel which appeared to move rapidly backwards and forwards between one location and another. This is believed to be due to an incorrect vessel call sign being manually data entered into FMC software before being transferred to the Commission VMS.



- In two additional cases, and for a period of months, it appears that the Commission VMS was sent VMS data from a beacon taken from a scrapped vessel, which the Commission VMS has therefore recognised as being from an unauthorised and unidentifiable vessel, while the actual vessel was not properly identified or being monitored under its correct identity.
- In other cases, while VMS data was sent by an FMC it did not display on the Commission VMS. This led to several months in which these vessels were not able to be continuously monitored. While the situation was rectified, the cause of the issue is still undetermined.
- In further cases, and for periods of days, the Commission VMS has been sent VMS data for a vessel that was on the SPRFMO Record of Vessels but no longer authorised, either due to an incorrect call sign being manually entered into FMC software or a change of flag (ship registry).

As well as these issues undermining the purpose of CMM 06-2020, each of these issues took hours or days of Secretariat time to resolve, and most could not have been resolved without CLS technical support. Often these issues were discovered by chance, so this may not be a complete list of individual issues that occurred in 2020.

Two further issues affecting access to VMS data are currently unresolved, and should be noted:

- The list of distinct vessels in the SPRFMO area extracted from the mapping function is slightly different depending on the manner in which the query is carried out (e.g. a query of the vessels present in the area in January and February separately returns slightly different results than if the query combines months).
- Another example is that the Mobile type code (e.g. 07.2.0) which Themis receives in an XML feed from the SPRFMO vessels database is correct, however it has been interpreted using an incorrect code list, so that for example 07.2.0 for Longliner displays on Themis as GND for driftnet.

7. Application of the SPRFMO VMS

7.1. *Within the Secretariat*

Overall, the VMS system has been working well in providing vessel positioning data for vessels within the relevant area. As a monitoring tool VMS is useful in providing a day-to-day snapshot of vessel locations, movements, and concentrations. As noted in Section 3, with respect to day-to-day activities, there are several “alerts” that have been created to flag issues to the Secretariat’s attention and follow-up if/as required. Additional alerts may be required to be established to add efficiencies to monitoring and resolving issues as quickly as possible. For example, it would be useful to have an alert when a possible transshipment within the Convention Area is occurring.

While activation of an alert does not necessarily mean that there is non-compliance it does enable better vigilance to potential issues with SPRFMO vessels (such as checking that transshipment data is subsequently provided). Often, once the alert is investigated, there may not be any further follow-up action required for that situation. When there is follow-up required, the matter may be resolved by engaging the VMS service provider and/or the Member or CNCP to take specific actions or provide missing data. In addition to reviewing and finetuning alerts annually (or as required) the Secretariat is working to document the “Business Process” to describe the follow-up required for each alert situation.

The SPRFMO VMS has also proven to be a useful part of the data toolbox for carrying out cross-referencing checks at year end for report preparation (for example CTC8-Doc07, the Record of Vessels Implementation Report and the CMS report). The value and efficiency of this cross-referencing process is of course heightened if the data in the system is accurate and up to date.

7.2. *Outside the Secretariat*

The other aspect that was envisioned for the VMS system and the data it collects was to supplement other aspects of programme delivery, such as for supporting analysis for Scientific Committee research; surveillance



operations and/or at-sea inspections by Members; and Search and Rescue responses. To date there has been little, if any, direct use of VMS data to support these other authorized uses. This may be a direct result of the relative newness of the system but there may also be inadvertent barriers or systemic issues preventing these uses.

During the reporting period there have been no requests for VMS data to support surveillance operations and/or at-sea inspections. This may be influenced by the Covid-19 situation in 2020 and potential disruptions to fishing activity, patterns or at-sea surveillance activity or could be indicative of other priorities or issues.

Likewise, with respect to access to VMS data to support search and rescue activities, there have been no requests received during the reporting period. There may be additional work required in the coming months to lay the groundwork for a practical implementation of this provision. For example, establishing the “terms of any Arrangement” between the Secretariat and the competent MRCC. Similarly, better understanding what the requirements and/or timelines for an MRCC might be if it is a time sensitive search and rescue matter. The Secretariat invites coastal States with MRCCs in the Convention Area to engage on the necessary arrangements required to implement paragraph 24c.

Outside of the foregoing, it is important that feedback or suggestions for other analysis or uses of the VMS data that would provide value added reporting or efficiencies be provided by Members.

Currently there is a proposal pertaining to VMS from Chile. Proposal COMM9-07 asks for greater access by coastal State members to VMS data when the vessels are close to (12 miles), or within, their EEZ. Additionally, in COMM9-Obs1 an Observer has requested that SPRFMO “*undertakes a comprehensive investigation of all SPRFMO registered vessels, active in the Convention Area in relation to improper or illegal transboundary activities, specifically including fishing or likely fishing incursions into the jurisdictional waters of the coastal states in the eastern Pacific*” which presumably, in part, would require considerable analysis of VMS data to determine the extent of vessel activity around coastal state EEZs.

8. Considerations

While there is always opportunity to make revisions and improvements; there is a specific commitment that the Commission shall conduct a review of the implementation of the Commission VMS at its annual meeting in 2023 and shall consider its efficiency and effectiveness and consider further improvements to the system as required. With this in mind, the Secretariat feels it is useful to flag any apparent issues and / or means to improve efficiency or usefulness of VMS well in advance of the 2023 annual meeting, including:

- Documentation of business processes pertaining to VMS issues
- Engagement with CLS to refine reports, advance technical solutions and enhance efficiencies
- Obtain guidance and input from Members, the CTC and the Commission to identify priority areas for Secretariat efforts in respect to VMS or to identify value-added VMS reports or other products that would benefit the Organisation.