



International Consultations on the Establishment of the
South Pacific Regional Fisheries Management Organisation

Draft Standard: Implementation of Vessel Monitoring Systems in the SPRFMO Area

Introduction

Data standards adopted at the 3rd SPRFMO meeting held in May 2007 in Reñaca, Chile, make specific provision for implementation of systems to verify collected data, including use of Vessel Monitoring Systems (VMS):

“4. Data Verification

Participants are to ensure that fishery data are verified through an appropriate system. Participants are to develop, implement and improve mechanisms for verifying data, such as:

- (a) Position verification through vessel monitoring systems;*
- (b) Scientific observer programmes to collect verification data on catch, effort, catch composition (target and non-target), discards and other details of fishing operations;*
- (c) Vessel trip, landing and transshipment reports; and*
- (d) Port sampling.”*

(SPRFMO Standards for the Collection, Reporting, Verification and Exchange of Data, 2007)

Rationale

A vessel monitoring system (VMS) allows almost real time information about the position of fishing vessels to be reported to a monitoring agency. A VMS may also provide for two-way communication between a vessel and a monitoring agency, and some systems (such as Inmarsat-C) form part of the Global Maritime Distress Safety System.. A VMS includes three components:

- A tracking unit installed on a vessel (the automatic location communicator, or ALC).
- A transmission medium (such as an Inmarsat or Argos satellite system if the VMS is satellite based) to relay messages between the vessel and the base station.
- The Base Station where the data is stored and utilised.

A range of information may be transmitted using a VMS, and the potential uses of a VMS will depend on the type of system and the information transmitted. When an integrated computer VMS is used, a greater variety of information may be transmitted, and the greater the number of potential uses of the system. The most basic data transmitted is a position report. Position reports provide real-time information on the spatial distribution of fishing vessels at any given time. Such information is particularly valuable for verifying data on the temporal and spatial distribution of fishing activities provided in catch and effort logbooks. The use of VMS can substantially improve the quality of location data collected for research and management purposes, and provides a tool to validate reported fishing position information.

VMS systems also have compliance benefits, and are particularly valuable for differentiation between authorised and IUU vessels observed at sea. VMS also increases the range of management options available to a management agency, and can facilitate the collection of other data for management purposes. In particular, the SPRFMO Interim Measures require participants to ensure that their fishing activities remain within areas where they are “currently occurring”. VMS monitoring will be required to ensure that vessels remain within existing fishing areas although it cannot be used to verify their activity at that time, unless vessels report continuously.

Minimum Standard for Vessel Monitoring Systems

With regard to the fishing vessels flying their flag and approved to fish for non-highly migratory fishery resources in the Area:

1. Implementation of Vessel Monitoring Systems

Participants are to develop, implement and improve systems to:

- (a) Ensure that all of their vessels fishing in the Area are fitted with fully operational automatic location communicator (ALC) reporting back to the flag state.
- (b) Ensure that ALC on their vessels remain operational, and report in accordance with this standard, at all times while operational in the SPRFMO area.
- (c) Maintain a record of all vessel position information reported while these vessels are operational in the SPRFMO area, such that this information may be used to document vessel activity in the SPRFMO area, and to validate fishing position information provided by those vessels.

2. Frequency and Accuracy of VMS Position Reports

Participants are to ensure that:

- (a) VMS position reports are reported by each of their vessels at least once every 2 hours while the vessel is within the SPRFMO area.
- (b) All VMS Position reports are made in accordance with the specification in paragraph 3 of this standard.
- (b) Under normal satellite navigation operating conditions, positions derived from the data reported are to be accurate to within 100 m².

3. Content of VMS Position Reports

Participants are to ensure that all VMS Position Reports made by their vessels include at least the following information:

Category	Data Element	Remarks
Vessel registration	Radio call sign	International radio call sign of the vessel
Vessel registration	Vessel name	Name of the vessel
Activity detail	Latitude	Position latitude (decimal degrees, to the nearest 0.01 degree)
Activity detail	Longitude	Position longitude (decimal degrees, to the nearest 0.01 degree)
Message detail	Date	Position date in UTC
Message detail	Time	Position time in UTC
