Western and
Central Pacific
Fisheries
Commission

Commission VMS Standard Operating Procedures
(SOPs)

1. Introduction

Purpose:	Establish guidelines and procedures for the operation of the Commission Vessel Monitoring System (Commission VMS).
Personnel Concerned:	All WCPFC Secretariat staff
Originator:	Manager VMS
Distribution:	MCS personnel
Authorised by:	Compliance Manager
Effective Date:	1 April 2009

2. Overview

The WCPFC operates a Vessel Monitoring System (Commission VMS) to assist in the management and conservation of highly migratory fish stocks in the Western and Central Pacific Ocean.

The Commission VMS requires the use of Mobile Transceiver Units (MTUs)/Automatic Location Communicators (ALCs) that have been typed-approved by CCMs and meet the minimum standards set out in Annex 1 of CMM 2007-02.

2.1 Purpose of these Standard Operating Procedures

These standard operating procedures (SOPs) have been developed to provide uniform guidance for Commission personnel in the management and operation of the Commission VMS.

2.2 Commission Decisions and Guidelines governing the Commission VMS

  a) WCPFC Information Security Policy – December 2007
  b) WCPFC VMS Security Guidelines – January 2009
  c) WCPFC Administrative Guidelines and Procedures Manual – September 2009

2.3 Those responsible for administering the Commission VMS and their responsibilities

The Monitoring, Control and Surveillance (MCS) section of the WCPFC Secretariat is responsible for the management and operation of the Commission VMS. In that capacity the MCS Section:

  a) provides oversight and management of all aspects of the Commission VMS;
  b) provides oversight of the process to obtain quality technical advice from satellite and internet service providers and contractors;
  c) take responsibility for the day-to-day operation of the Commission VMS; and

d) maintains the Commission VMS, monitors its state and provides regular reports on these matters to the Executive Director.

2.4 MCS Section responsibilities

The MCS Section:

a) oversees the operations of the Commission VMS including operation of the WCPFC Record of Fishing Vessels;
b) administers the SLA with FFA for the provision of VMS services to the Commission;
c) administers the Secretariat's responsibilities in respect of the SSPs for the Commission's VMS;
d) liaises closely with the VMS Manager at the FFA Secretariat on matters relating to Commission VMS data and its transmission to the WCPFC Secretariat;
e) Manages VMS data in conformity with the Commission's ISP and Rules and Procedures for the Protection of, Access to and Dissemination of Data Compiled by the Commission;
f) oversees the requirements of the Commission VMS and provides advice to the Executive Director on its effective utilization to support core activities at the WCPFC Secretariat;
g) manages the day-to-day operations of the WCPFC Secretariat's satellite network and associated equipment at a level required to support the Commission VMS;
h) manages and contributes to the design and implementation of relevant training programmes relating to Commission VMS systems for the benefit of WCPFC Secretariat staff;
i) collaborates with relevant WCPFC Secretariat staff and the FFA Secretariat to test new aspects of the Commission VMS;
j) monitors the day-to-day operations of the Commission VMS;
k) liaises closely with the ICT Manager at the WCPFC Secretariat on technical matters relating to the operation of the Commission VMS; and
l) acts as a point of contact for all CCM-related Commission VMS inquiries and for dissemination of relevant information such as Commission VMS Guidelines and related material.

2.5 Availability of Commission VMS services

Commission VMS Services (as listed above) are available to all CCMs.

2.6 Commission VMS Services available from the WCPFC Secretariat

The WCPFC Secretariat provides the following technical assistance to CCMs:

a) technical assistance on the Commission VMS.
b) technical guidance on development and enhancement of the Commission VMS.

3. VMS Software Applications

3.1 SmartTrack TrackExplorer

SmartTrack TrackExplorer is a powerful and flexible tool for utilizing satellite information to monitor the activity of fishing fleets. Each vessel is fitted with an MTU/ALC so that its position and movement can be tracked on a computer screen against a background map.

A TrackExplorer window provides a comprehensive range of tools for working with the map and the fishing vessels. It can be used to generate current and historical position data for vessels of interest, and view animations of past tracks.

3.2 Manual Reporting

Vessels typically report their positions automatically. The Commission VMS also has a facility to enter sightings or manual positions that can then be compared with the automatically received locations from MTUs/ALCs.

Vessel positions gathered by observers, surveillance aircraft or other vessels can be entered into the "sightings" system for analysis.

3.3 Alerts

Alerts are generated in relation to significant vessel activities or events. Almost any activity on the system can be configured to trigger an alert.

The Commission VMS includes an automated alert to report when vessels enter or exit the high seas of the WCPFC Convention Area.

Alerts are sent to relevant officers by e-mail or SMS.

Alerts generated by the system include:

    a) Area.Entry.International Waters (HS);
    b) Area.Exit.International Waters (HS);
    c) Overdue.04:00;
    d) Position.Power Off; and
    e) Position.Power On.

4. Operational Procedures

4.1 Secretariat Office Procedures

Refer to Section 9 "Office Procedures" of the draft WCPFC Administrative Guidelines and Procedures Manual appended at **Annex A**.

4.2 VMS Client User Access

The Manager VMS, after consultation with the Compliance Manager, can provide user access to the Commission VMS to an individual user.

The Commission VMS is configured so that each user has a unique login ID and password which can be changed at the discretion of the user. The system forces a change of password at intervals not exceeding 40 days. A password must consist of at least eight alpha-numeric characters and must be different from previous passwords and ID. Each user is responsible for their respective ID and password. If a user believes access has been gained through illegal use of his/her password or the user has forgotten his/her password, the Manager VMS must be notified immediately.

For further information, please refer to the WCPFC Security Guidelines located on the Secretariat's network drive.

4.3 Vessel Tracking Agreement Form

For each fishing vessel that is required to report to the Commission VMS the flag CCM will submit all necessary data indicated in the Vessel Tracking Agreement Form (VTAF). A copy of the VTAF is appended at **Annex B**.

The following procedures are to be followed when a VTAF is received by the Commission from a CCM.

1. Acknowledge receipt of the VTAF by e-mail to the CCM official who sent it.

2. Check that the VTAF is completed correctly. An incomplete VTAF should be referred back to the CCM official who sent it.

3. Check that the MTU/ALC described in the VTAF is type approved by the CCM. If not, advise the CCM official accordingly.

4. If the MTU is type approved by the CCM then check against the FFA Vessel Register to determine if the vessel is listed. If it is listed then no further action required. The vessel will be monitored when it enters the high seas of the WCPFC Convention Area.

5. If the vessel is not listed on the FFA Vessel Register then its MTU/ALC must be activated to report directly to the Commission VMS.

4.4 Vessel Activation

Vessel Activation costs USD$200 per vessel. On receipt of a completed VTAF the vessel should be checked against the FFA Vessel Register available on the FFA Secretariat website at **www.ffa.int/node/42**

4.5 Vessel activation procedure

Submit to the FFA Secretariat for vessel activation on the Commission VMS the following information:

a) VRID – Vessel Register ID;
b) Vessel Name – in English;
c) Country Registration Number;
d) IRCS – International Radio Call Sign;
e) Vessel Type (e.g. longline);
f) Flag – full name, not flag code;
g) Vessel length (in metres);
h) GRT – Gross Registered Tonnage of the vessel;
i) MTU/ALC Manufacturer (e.g. Thrane & Thrane);
j) MTU/ALC Model (e.g. TT-3022D);
k) MTU/ALC software version (if provided);
l) MTU/ALC communication ID (e.g. IMN: 450 360 120);
m) MTU/ALC Serial number.

The FFA Secretariat will update the vessel table in the VMS database and activate the vessel on the system.

The FFA Secretariat will then advise if activation is successful or not.

If activation was not successful then advise CCM Official of why the activation was unsuccessful, this may include:
• DNID sent to vessel, but vessel did not send acknowledgement to Commission VMS;

- Program sent to vessel but vessel did not send acknowledgement to Commission VMS; or
- Start Command sent to vessel but vessel did but send acknowledgement to Commission VMS.

Request the CCM official to check the vessel's MTU/ALC, rectify any anomalies with the MTU/ALC and inform the WCPFC Secretariat of when the vessel is ready for activation.

On receipt of the advice by the CCM that the MTU/ALC is ready for a second attempt of activation, activate the vessel on the system again.

If the MTU/ALC activation fails on the second attempt, notify the CCM and place the vessel on manual reporting at four (4) hourly intervals until the MTU/ALC can be activated to report automatically to the Commission VMS.

4.6 Reports

VMS Operations Officers are required to produce weekly and monthly reports of vessel activities on the Commission VMS.

A weekly report includes information on:
- count of daily position reports by vessel;
- number of vessels reporting versus non-reporting;
- number of vessels reporting directly to the Commission VMS and vessels reporting via FFA VMS;
- Vessel status – Normal, Shut down, Manual reporting etc.

A monthly report includes:
- number of vessel activations during the month;
- number of vessels reporting directly to the Commission VMS and vessels reporting via FFA VMS;
- number of vessels reporting versus non-reporting;
- number of days a vessel spends in the high seas by month;
- estimated cost of reports by month.

The Compliance Manager may request additional ad-hoc reports to be provided.

These reports are to be produced in MS Excel and MS Word in accordance with the Administrative Guidelines and Procedures Manual.

4.7 Manual Reports

In the event of non-reception of two consecutive, programmed high seas VMS positions, and where the Secretariat has exhausted all reasonable steps to re-establish normal automatic reception of VMS positions the Secretariat shall inform the vessel's flag State CCM and the vessel Master.

From the time of transmission of this communication to the CCM, the vessel Master shall be required to take immediate steps to re-establish automatic reporting and in any event within 30 days or at its first port of call if less than 30 days.

During this period the vessel shall be required to report its position manually to the Secretariat every 4 hours. The manual report will consist of the following:

- Vessel Name
- IRCS
- UTC Date (dd-mm-yy)
- UTC Time 24 hour format (hh:mm:ss)
- Latitude (in degrees Minutes, Seconds N or S)
- Longitude (in degrees Minutes, Seconds E or W)
- Course[#1]
- Speed (in Knots) [#]
- Activity at the time of report. (e.g. Fishing, in port etc.) [#]

In cases where automatic reporting has not been re-established within 30 days the CCM shall order the vessel to cease fishing, stow all fishing gear and return to port.

The vessel may recommence fishing on the high seas only when the MTU/ALC has been confirmed as operational by the WCPFC Secretariat following the flag State CCM informing the Secretariat that the vessel's automatic reporting complies with the regulations established in the Commission VMS Standards, Specifications and Procedures (SSPs).

4.8 Commission VMS Helpdesk Support

Commission VMS Helpdesk Support is provided by the FFA Secretariat 24 hours a day, seven days a week.

Helpdesk support can be obtained by contacting:

Phone: +677 24969

E-mail: vms@ffa.int

Officers requesting Helpdesk support must record the nature of the request in the Incident Report Log located on **S:\MCS\VMS\Helpdesk Support**.

CMMs requesting Commission VMS assistance must log calls on the WCPFC Helpdesk located on the WCPFC website.

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[1] # These requirements will come into effect from 1 July 2010

EXTRACT FROM DRAFT WCPFC ADMINISTRATIVE GUIDELINES AND PROCEDURES MANUAL

9. OFFICE PROCEDURES

9.7 Security

9.7.1 KEYS, PASSWORDS, COMBINATIONS, PHYSICAL ACCESS

a) Staff will be provided with only the keys, passwords and combinations required for them to undertake their direct work functions and access recreational facilities.

b) A key register is maintained by the Officer Manager as well as secure storage of spare keys.

c) Staff are responsible for the integrity of their workplace security and common entry and exit doors. Office doors should be locked after hours when staff are away from their workplaces as well as windows. Doors other than the main entry door should be locked when not in immediate use.

d) Staff are to check their rooms and the premises as they leave the main office or any of the other buildings to ensure all windows and doors are properly secured. Special checks at the end of each work day will be undertaken by the Executive Assistant and Office Manager.

e) Keys, passwords and combinations are to be kept secure.

f) Visitors to the Commission are required to register at reception and be issued with a visitor's tag. Visitors, including family members are not to be permitted to move around the building unescorted.

9.7.2 E-SECURITY

The primary objective of e-security (electronic or online cyber security) is to have available at all times, appropriate measures to protect the Secretariat's corporate network and shared resources, safeguard electronic data/information and their exchange whether stored on the live website or in-house Sharepoint and corporate databases, electronic mail stores, and also data access and dissemination. The realization of the Commission's e-security portfolio is 'work currently in progress', moving forward in parallel with the current activities on developing the Secretariat's corporate network, hardware and software portfolio; data management priorities initially focused on business data for the 'WCPFC Record of Fishing Vessels', Commission Vessel Monitoring System and Regional Observer Programme; and the Commission's public website at http://www.wcpfc.int.

E-security procedures are currently being developed based on the following key guidelines:

a) Establishing adequate disaster recovery plan and procedures - currently in progress.

b) Prevention of network compromise - current procedures in place include:
  • Only authorized users have access to the corporate network with 'strong password' policy in place. For the live website, all authorized users have assigned roles with pre-defined security levels.

- All corporate servers protected by proven firewall, antivirus and anti-spam solutions with real-time update policies activated. All network devices protected by anti-virus with live electronic updates.
- Logs of key software updates, mail protection (anti-spam), anti-virus, Internet and network events, together with special event alert monitors allow administrators to address any problem issues before they happen.
- Appropriate service level agreements (SLAs) are in place for outsourced support of critical systems and applications.

c) Prevention of data theft:
- Procedures to define 'acceptable mobile device for WCPFC use' and restriction on their use currently in progress.
- Automated procedures to keep all approved software 'up-to-date' implemented.
- Staff training on prevention of data theft is an on-going activity.

d) Prevention of data loss:
- An enterprise backup and recovery solution is in place with full backups of business data run daily, Monday to Friday, and stored offsite.
- Staff training on storage of important business data in public folders or shared folders which get backed up is an on-going activity.

e) Minimize downtime and negative impact from 'denial of service' (DoS) attacks:
- DoS is hard to prevent but its negative impact can be minimized and this is mainly to do with the Commission's public website hosted externally and Internet connections in its Pohnpei headquarters. Adequate steps have been taken to address current threats.

On completion. Please return this Agreement form to:
Fax: **+691 320-1108** *or* *Email: contact.vms@wcpfc.int*
Mail: **Western and Central Pacific Fisheries Commission**
PO Box 2356
Kolonia, Pohnpei State
Federated States of Micronesia 96941

Western and Central Pacific Fisheries Commission

Vessel Tracking Agreement Form

VESSEL DETAILS

Vessel Name: _____   International Radio Callsign (IRCS): _____

Country of Registration: _____   Country Registration Number: _____

Vessel Type: _____   Home Port: _____

VESSEL CONTACT DETAILS

Name: _____

Address _____   Phone Number: _____

_____   Cell Phone / Satphone: _____

_____   Email Address _____

_____   Fax Number: _____

MOBILE TRANSCEIVER UNIT (MTU)/AUTOMATIC LOCATION COMMUNICATOR (ALC)

Manufacturer: _____   Model: _____

Software Version N°. _____   Serial Number: _____

Mobile Number: _____   Name of MCSP: _____
MCSP - Mobile Communications Service Provider

INSTALLATION CERTIFICATION (to be completed by the installer)

What Type Approval standard does _____
the MTU/ALC comply with? _____

MTU/ALC fitted according the manufacturer's guidelines: **YES / NO**

MTU/ALC has been commissioned according to MCSP and manufacturer's specifications: **YES / NO**

MTU is in operation continuously: **YES / NO**

Installation done on: __ / __ / __ by:
(dd/mm/yyyy)

Name (Print) _____

Signature: _____

Company: _____

Phone Contact: _____

AUTHORISATION

I _____, the owner of the MTU/ALC described above hereby authorise the WCPFC
(Print Name)
Secretariat to electronically monitor the unit, and disseminate data from it, in accordance with WCPFC policy.

Signature: _____   Date: _____