
ON THE VESSEL MONITORING SYSTEM (VMS) PROGRAMME

SUBMITTED BY: UK(OT) AND CO-SPONSORED BY MALDIVES, MOZAMBIQUE, SEYCHELLES, 1 MAY 2014

Explanatory Memorandum

This proposal updates Resolution 06/03 *on establishing a vessel monitoring system programme* creating a centralised VMS in IOTC and defining the rules for sharing that data.

Contracting Parties and Cooperating Non-Contracting Parties (CPC) in the region, and developing States in particular, have a legitimate and pressing need to increase their capacity and ability to monitor all fishing vessels in waters under their national jurisdiction to ensure the effectiveness of fisheries control measures, adopted by the Commission or through their own domestic laws or regulations.

It has been noted that illegal, unregulated and unreported (IUU) activities still continue in the IOTC Area of Competence, and actions to identify such activities have been taken through the implementation of Port State Measures (Resolution 10/11) and implementation of a Regional Transhipment Observer Programme (Resolution 11/05 and 12/05) to monitor all authorised transhipments in the IOTC Area of Competence. However, unauthorised transhipments and IUU activities on the high seas of the IOTC area of competence evade detection due to the lack of electronic coverage and monitoring of this area.

This Resolution proposes mandatory VMS coverage and secure monitoring of all vessels (including fishing vessels, carrier vessels and support vessels), flying the flag of a CPC and on the IOTC Record of Authorised Vessels or authorised to fish tuna and tuna-like species managed by the IOTC on the high seas. This will include all fishing vessels when fishing outside of waters of national jurisdiction. This Resolution is intended to utilise existing and available technologies already in use globally to track and monitor activities of all vessels involved in fishing activities to deter and eliminate IUU fishing in the IOTC area of competence.

Given that to date not all CPC are compliant with 06/03, and that details such as cost of implementing a centralised VMS are not yet defined we propose that the implementation of the centralised VMS is scheduled for 2017 (Para 10). It is proposed that the Secretariat or the Compliance Committee or a subsidiary Working Party of the Compliance Committee is requested to examine any compliance issues and to provide a number of cost options for the commissioning of such a system, which would be borne through Members' national contributions, to be reported at the Commission Meeting in 2015 for progressive implementation by 2017.

To address data confidentiality and security requirements we also propose to update Resolution 12/02 *Data confidentiality policy and procedures* (IOTC–2014–S18–PropK).

RESOLUTION 14/XX06/03
ON ~~ESTABLISHING A~~ THE VESSEL MONITORING SYSTEM (VMS) PROGRAMME

The Indian Ocean Tuna Commission (IOTC),

TAKING NOTE of the results of the Intersessional Meeting on an Integrated Control and inspection scheme, held in Yaizu, Japan, from 27 to 29 March, 2001;

RECOGNISING the value of satellite-based Vessel Monitoring Systems (VMS) for the Commission's conservation and management programmes, including compliance;

RECOGNISING IOTC Resolution 02/02 [superseded by Resolution 06/03 and subsequently by Resolution 14/XX] which called for the adoption of a pilot satellite-based vessel monitoring system (VMS) by 1st January 2004;

TAKING NOTE that the Resolution 02/02 [superseded by Resolution 06/03 and subsequently by Resolution 14/XX] has allowed the progressive incorporation of these systems to accommodate Contracting Parties that lack sufficient capacity for immediate implementation at a national level;

RECOGNISING that this Resolution 02/02 [superseded by Resolution 06/03 and subsequently by Resolution 14/XX] provides a process for developing States of the region to build the capacity to implement this Resolution;

AWARE that many Parties have established VMS systems and programmes for their fleets and that their experience may be very helpful in supporting the conservation and management programmes of the Commission;

RECALLING that the FAO Council adopted on 23 June 2001 an International Plan of Action to prevent, to deter and eliminate illegal, unregulated and unreported fishing (IPOA - IUU). This plan stipulates "States should undertake comprehensive and effective monitoring, control and surveillance (MCS) of fishing ... by implementing where appropriate, a vessel monitoring system (VMS), in accordance with the relevant national, regional or international standards..."

RECALLING that the IOTC adopted Resolution 01/07 concerning its support of the IPOA - IUU Plan.

RECALLING the provisions of the United Nations Convention of the Law of the Sea with respect to freedom of navigation, and recognising the rights and responsibilities contained therein of flag States and coastal States.

RECOGNISING that the IOTC has implemented Resolution 02/02, superseded by Resolution 06/03 and subsequently by Resolution 14/XX, with respect to the mandatory implementation of satellite-based VMS for all vessels greater than 15 metres in length overall, registered on the IOTC Record of Vessels which operate in the IOTC area of competence and to extend this to fishing vessels smaller than 15 metres to ensure the effectiveness of IOTC Conservation and Management Measures.

RECALLING that the IOTC adopted Resolution 07/01 to implement IOTC Conservation and Management Measures through flag state controls in respect of fishing vessels entitled to fly their flag that carry out their activities in the IOTC area of competence.

NOTING that Contracting Parties and Cooperating Non-Contracting Parties (CPCs) in the region, and developing States in particular, have a legitimate and pressing need to increase their capacity and ability to monitor all fishing vessels in waters under their national jurisdiction to ensure the effectiveness of fisheries control measures adopted by the Commission or through their own domestic laws or regulations.

FURTHER NOTING that the Commission has a gap in its capacity to monitor all fishing activities in the IOTC area of competence and thus is hampered in its actions to identify, deter and eliminate IUU fishing in this Area.

CONCERNED by the fact that IUU fishing activities in the IOTC area of competence continue, and these activities diminish the effectiveness of IOTC Conservation and Management Measures.

FURTHER CONCERNED that there is evidence of a large number of vessel owners engaged in such fishing activities which have re-flagged their vessels to avoid compliance with IOTC Conservation and Management Measures.

NOTING that illegal, unregulated and unreported (IUU) activities still continue in the IOTC area of competence, and actions to identify such activities have been taken through the implementation of Port State Measures (Resolution 10/11) and implementation of a Regional Transshipment Observer Programme (Resolution 11/05 and Resolution 12/05) to monitor all authorised transshipments in the IOTC area of competence. However, unauthorised transshipments and IUU activities on the high seas of the IOTC area of competence evade detection due to the lack of electronic coverage and monitoring of this area.

DETERMINED to address the challenge of an increase in IUU fishing activities by way of countermeasures to be applied in respect to the vessels, without prejudice to further measures adopted in respect of flag States under the relevant IOTC instruments.

CONSCIOUS of the need to address, as a matter of priority, the issue of fishing vessels conducting IUU fishing activities in Members' waters, and that Flag States operating in the Indian Ocean have a right to know when vessels flying their flags are being monitored by RFMOs and coastal States and must consent to that monitoring in the waters under the national jurisdiction of another Member.

NOTING that the situation must be addressed in the light of all relevant international fisheries instruments.

NOTING that all CPCs have an interest in ensuring that vessels that are authorised to fish in the IOTC area of competence, do so in accordance with the provisions of the IOTC Agreement, any Conservation and Management measures or decisions adopted by the Commission or domestic laws or regulations of any Member when operating in waters under its jurisdiction. Effective conservation and management in waters under the national jurisdiction of coastal States Members' as well as in waters beyond national jurisdiction are critical to the success of the Commission.

ADOPTS in accordance with the provisions of Article IX paragraph 1 of the IOTC Agreement, that:

1. Each Contracting Party and Cooperating Non-Contracting Party (CPC) shall adopt a satellite-based vessel monitoring system (VMS) for all vessels ~~greater than 15 metres in length overall~~ registered on the IOTC Record of Vessels which operate in the IOTC Area and which fish ~~on the high seas (outside their national fisheries jurisdiction of any coastal state)~~ for species covered by the IOTC Agreement ~~by 1 July 2007~~.
2. The Commission may establish guidelines for the registration, implementation and operation of VMS in the IOTC Area with a view to standardising VMS adopted by CPCs.
3. Information collected shall include:
 - a) the vessel identification;
 - b) the current geographical position of the vessel (longitude, latitude) with a position error which shall be less than 500 metres, at a confidence level of 99%; and
 - c) the date and time (expressed in UTC) of the fixing of the said position of the vessel.
4. Each CPC shall take the necessary measures to ensure that their land-based national Fisheries Monitoring Centre~~er~~ (FMC) receives through the VMS the information required in paragraph 3, and that the FMC is equipped with computer hardware and software enabling automatic data processing and electronic data transmission. Each CPC shall provide for backup and recovery procedures in case of system failures.
5. Each CPC shall ensure that the information in paragraph 3 is transmitted to the FMC at least once every 4 hours. Each CPC shall ensure the masters of fishing vessels flying its flag ensure that the satellite tracking device(s) are at all times fully operational.
6. Each CPC as a Flag State shall ensure that the vessel monitoring device(s) on board its vessels are tamper resistant, that is, are of a type and configuration that prevent the input or output of false positions, and that

they are not capable of being over-ridden, whether manually, electronically or otherwise. To this end, the on-board satellite monitoring device must:

- a) be located within a sealed unit; and
 - b) be protected by official seals (or mechanisms) of a type that will indicate whether the unit has been accessed or tampered with.
7. The responsibilities concerning the satellite-tracking devices and requirements in case of technical failure or non-functioning of the satellite-tracking devices are established in **Annex I**.
8. ~~Until 1 July 2008, f~~Fishing vessels referred to in paragraph 1 which are not yet equipped with VMS shall report to their FMC at least daily by email, facsimile, telex, telephone message or radio. Such reports must include, inter alia, information required in paragraph 3 when transmitting the report, to their competent authorities, as well as:
- a) the geographic position at the beginning of the fishing operation;
 - b) the geographic position at the end of the fishing operation.
9. CPCs that cannot fulfil the obligations as outlined in this Resolution shall report to the IOTC Secretariat (i) the systems and infrastructure and capabilities existing with respect to the implementation this Resolution, and (ii) the hindrances for implementation of such a system and (iii) requirements for implementation.
10. A centralised VMS will be established at the Secretariat by 2017 following detailed review of the requirements and costs by the IOTC Secretariat or the Compliance Committee or a subsidiary Working Party of the Compliance Committee. The system shall be capable of receiving position reports in near-real-time from all vessels operating outside of their national waters and in the IOTC area of competence via their CPC as described in paragraph 12. This shall apply to all vessels (including fishing vessels, carrier vessels and support vessels), flying the flag of a CPC and on the IOTC Record of Authorised Vessels or authorised to fish tuna and tuna-like species managed by the IOTC on the high seas. The system shall be capable of forwarding these data on to coastal States automatically when a vessel is inside the waters of an IOTC coastal State.
11. The Secretariat will be responsible for the commissioning, operation and maintenance of the centralised VMS. Coastal State Members will be responsible for costs relating to the receipt and management of VMS data by their FMC. Flag State Members will be responsible for any additional costs associated with the transmission of VMS data for their vessels to the Secretariat VMS. All parties shall strive to find the most efficient and cost-effective manner in which to transfer data.
12. Contracting Parties and Cooperating Non-Contracting Parties (CPCs) shall provide VMS position data for all of their flag State vessels that operate outside waters of their own national jurisdiction and in the IOTC area of competence to the vessel monitoring system at the IOTC Secretariat. Vessel position data shall be forwarded from flag State vessel monitoring systems to the IOTC Secretariat VMS automatically in near-real-time or direct from land-earth stations (LES) to both the flag State and the IOTC Secretariat VMS simultaneously where automatic near-real-time transmission is not possible.
13. The VMS data received from flag State vessels shall be stored and processed by the system at the IOTC Secretariat and forwarded automatically to the coastal Member State VMS in a standard format(s) to be agreed, where a coastal State has an appropriate system that meets the confidentiality and security requirements detailed in Resolution 14/XX or any subsequent revision[see PropK].
14. CPC vessels that enter the waters under the national jurisdiction of a coastal State Member retain all their navigational rights, including transit, innocent passage and freedom of navigation under international law. VMS data held by coastal States will be provided only to Authorised MCS Personnel and Authorised Management Personnel of the coastal State as defined and identified to the IOTC Secretariat in accordance with the Data Confidentiality Policy and Procedures established by the Commission.

15. VMS data will be used only for monitoring, control and surveillance purposes and the confidentiality and security of the VMS data shall be maintained as described in the data confidentiality policy and procedures of IOTC (Resolution 14/XX or any subsequent revision)[see PropK].
160. Each CPC shall provide to the IOTC Secretariat, by 30 June each year, a report on the progress and implementation of its VMS programme in accordance with this Resolution including the use of VMS data, and measures implemented to preserve confidentiality and security including operational policies as required. The IOTC Secretariat shall compile reports prior to the annual Session of the Commission and present a report to the IOTC Compliance Committee. The IOTC Secretariat shall report in its annual report to the Compliance Committee, the details of requests by CPCs and responses to requests for VMS data for the preceding calendar year. Based on these reports, the Commission will discuss how best to proceed with future consideration of VMS to support its Conservation and Management Measures.
174. CPCs are encouraged to extend the application of this Resolution to their fishing vessels not provided for in paragraph 1 if they consider this to be appropriate to ensure the effectiveness of IOTC Conservation and Management Measures.
182. Resolution 06/0302/02 Relating to the On -Establishment establishing -of a Vessel Monitoring System Pilot Programme is superseded by this Resolution.

ANNEX I

**RESPONSIBILITIES CONCERNING THE SATELLITE-TRACKING DEVICES AND REQUIREMENTS IN CASE OF
TECHNICAL FAILURE OR NON-FUNCTIONING OF THE SATELLITE-TRACKING DEVICES**

- A) In the event that a CPC has information to suspect that on-board vessel monitoring device(s) do not meet the requirements of paragraph 2, or have been tampered with, it shall immediately notify the IOTC Executive Secretary and the vessel's Flag State.
- B) Masters and owners/licensees of fishing vessels subject to VMS shall ensure that the vessel monitoring device(s) on board their vessels within the IOTC Area are at all times fully operational. Masters and owners/licensees shall in particular ensure that:
- VMS reports and messages are not altered in any way;
 - the antennae connected to the satellite monitoring device(s) are not obstructed in any way;
 - the power supply of the satellite monitoring device(s) is not interrupted in any way; and
 - the vessel monitoring device(s) are not removed from the vessel.
- C) A vessel monitoring device shall be active within the IOTC Area. It may, however, be switched off when the fishing vessel is in port for a period of more than one week, subject to prior notification to, and approval of, the Flag State, and if the Flag State so desires also to the IOTC Secretariat, provided that the first position report generated following the re-powering (activating) shows that the fishing vessel has not changed position compared to the last report.
- D) In the event of a technical failure or non-operation of the satellite tracking device fitted on board a fishing vessel, the device shall be repaired or replaced within one month. After this period, the master of a fishing vessel is not authorised to commence a fishing trip with a defective satellite tracking device. Furthermore, when a device stops functioning or has a technical failure during a fishing trip lasting more than one month, the repair or the replacement has to take place as soon as the vessel enters a port; the fishing vessel shall not be authorised to commence a fishing trip without the satellite tracking device having been repaired or replaced.
- E) In the event of a technical failure or non-functioning of the vessel monitoring device on board the fishing vessel, the master or the owner of the vessel, or their representative, shall communicate immediately to the FMC of the Flag State, and if the Flag State so desires also to the IOTC Secretariat, stating the time that the failure or the non-functioning was detected or notified in accordance with paragraph F of this Annex. In the event of a technical failure or non-functioning of the vessel monitoring device on board the fishing vessel, the master or the owner of the vessel, or their representative, shall also communicate to the FMC of the Flag State the information required in paragraph 3 of the Resolution every four hours, by email, facsimile, telex, telephone message or radio.
- F) When the Flag State has not received for 12 hours data transmissions referred to in paragraphs 5 of the Resolution and E of this Annex, or has reasons to doubt the correctness of the data transmissions under paragraphs 5 of the Resolution and E of this Annex, it shall as soon as possible notify the master or the owner or the representative thereof. If this situation occurs more than two times within a period of one year in respect of a particular vessel, the Flag State of the vessel shall investigate the matter, including having an authorised official check the device in question, in order to establish whether the equipment has been tampered with. The outcome of this investigation shall be forwarded to the IOTC Secretariat within 30 days of its completion.
- G) With regard to paragraphs E and F of this Annex, each CPC shall, as soon as possible but no later than two working days following detection or notification of technical failure or non-functioning of the vessel monitoring device on board the fishing vessel, forward the geographical positions of the vessel to the IOTC Secretariat, or shall ensure that these positions are forwarded to the IOTC Secretariat by the master or the owner of the vessel, or their representative.

ANNEX II

FLAG STATE RESPONSIBILITIES CONCERNING THE SATELLITE-TRACKING DEVICES AND REQUIREMENTS IN CASE OF TECHNICAL FAILURE OR NON-FUNCTIONING OF THE VESSEL MONITORING SYSTEM

- A) CPCs reporting to the Commission on behalf of fishing vessels subject to VMS shall ensure that the vessel monitoring device(s) on board their vessels within the IOTC area of competence are at all times fully operational.
- B) In the event of a technical failure or non-functioning of the vessel monitoring system of the flag State, the Commission should be notified and all coastal States with vessels of that flag State currently in their waters will be notified.
- C) With regard to paragraphs E and F of Annex I and paragraph B of this Annex, each CPC shall, as soon as possible but no later than two working days following detection or notification of technical failure or non-functioning of the vessel monitoring device on board the fishing vessel or a failure of the flag State vessel monitoring systems forward the geographical positions of the vessel(s) concerned to the IOTC Secretariat vessel monitoring system, or shall ensure that these positions are forwarded to the IOTC Secretariat by the master or the owner of the vessel, or their representative. If the vessel positions occur in the waters of a coastal State then the IOTC Secretariat will forward them as soon as physically possible to the coastal State concerned.