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## ON THE VESSEL MONITORING SYSTEM (VMS) PROGRAMME

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**Submitted by: Seychelles**

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The changes in Rev 1 are highlighted in yellow.

### Explanatory Memorandum

The proposed Resolution revokes the following Resolution:

- Resolution 25/02 *On establishing a Vessel Monitoring System Programme*

The proposed amendment introduces a mandatory requirement for the continuous operation of Automatic Identification Systems (AIS) for vessels operating within waters under the national jurisdiction of CPCs, thereby complementing existing Vessel Monitoring System (VMS) obligations under Resolution 25/02 and strengthening overall monitoring, control and surveillance (MCS) frameworks.

While VMS remains a primary monitoring tool, its data is restricted to flag and coastal States and is not independently verifiable in real time. AIS by contrast, provides real-time, publicly broadcast vessel tracking and an additional verification layer, enabling effective cross-checking of VMS data. The combined use of AIS and VMS reduces the risk of vessels “going dark”, improves detection of anomalous behaviour and strengthens evidentiary support in compliance and enforcement cases.

Furthermore, the requirement enhances coastal State control within its Exclusive Economic Zones (EEZs), where access to detailed VMS and logbook data is limited, by improving visibility of vessel movements and activities, supporting real-time surveillance and enabling more timely enforcement responses. The proposal is consistent with international frameworks, including the requirements of the International Maritime Organization under SOLAS, as well as emerging practices in other RFMOs and reflects regulatory approaches already adopted by several CPCs.

## RESOLUTION 26/XX ON THE VESSEL MONITORING SYSTEM (VMS) PROGRAMME

**Keywords:** Vessel Monitoring System (VMS), [Automatic Identification Systems \(AIS\)](#)

### **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RECOGNISING IOTC Resolution 02/02 [superseded by Resolution 06/03 and subsequently by [Resolution 15/03](#)] which called for the adoption of a pilot satellite-based vessel monitoring system (VMS) by 1<sup>st</sup> January 2004;

TAKING NOTE that the Resolution 02/02 [superseded by Resolution 06/03 and subsequently by [Resolution 15/03](#)] 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 15/03](#)] provides a process for developing States of the region to build the capacity to implement this Resolution;

[RECOGNISING the complementary role of Automatic Identification Systems<sup>1</sup> \(AIS\) as a near real-time autonomous and continuous vessel identification and monitoring system and independently verifiable vessel tracking tool that enhances the effectiveness of Vessel Monitoring Systems \(VMS\);](#)

[NOTING that AIS carriage and operation requirements are established under the International Convention for the Safety of Life at Sea \(SOLAS\) Chapter V, Regulation 19.2.4 adopted by the International Maritime Organization;](#)

[FURTHER NOTING that IOTC Resolutions 24/03 reference AIS as optional tools for CPCs to use in detecting IUU fishing and port inspections.](#)

[FURTHER RECOGNISING the importance of enhancing transparency and cooperation between Flag States and Coastal States through improved vessel tracking data.](#)

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; 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 flying its flag 24 metres in length overall or above or in case of vessels less than 24 meters, those operating in waters outside the Economic Exclusive Zone of the Flag State fishing for species covered by the IOTC Agreement within the IOTC area of competence.
2. Those CPCs currently without a VMS for any additional vessel now meeting the criteria for inclusion in the VMS obligation since Resolution 06/03 was superseded, as defined in paragraph 1 above, shall submit an implementation plan to the Compliance Committee in April 2016 that sets out a phased approach to full

<sup>1</sup>[Definition of AIS as per International Convention for the Safety of Life at Sea \(SOLAS\), Chapter V, Regulation 19.2.4, as: An automatic tracking system used on ships and by vessel traffic services \(VTS\) that transmits and receives vessel identification, position, course, speed and other safety-related information in real time via VHF radio.](#)

implementation of their national VMS obligation within a maximum of 3 years, i.e. by April 2019, with at least 50% of all qualifying vessels compliant by September 2017.

3. Any CPC with vessels not yet equipped with VMS as already required under Resolution 06/03 (or any subsequent superseding Resolution; superseded by [Resolution 15/03](#)) shall be required to fully implement its national VMS obligation within a maximum of 1 year, i.e. by April 2016 in respect of those vessels.
4. The Commission may establish guidelines for the registration, implementation and operation of VMS in the IOTC area of competence with a view to standardising VMS adopted by CPCs.
5. 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.
  - e)d) ~~Where applicable, data derived from Automatic Identification Systems (AIS), including vessel identification, position, course, speed and time, may be used as a complementary source of information to support the verification and cross-checking of the information specified in subparagraphs (a), (b) and (c).~~
6. Each CPC shall take the necessary measures to ensure that their land-based national Fisheries Monitoring Center (FMC) receives through the VMS the information required in paragraph 5, 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.

**6bis.** ~~Where applicable, CPCs are encouraged to ensure that their FMC systems can receive and integrate Automatic Identification System (AIS) data, where available, for the purposes of cross-checking and verification of VMS information.~~

**6ter.** ~~Where applicable, data derived from AIS, including vessel identification, position, course, speed and time, may be used as a complementary source of information to support the verification and cross-checking of the information specified in subparagraphs (a), (b) and (c).~~

7. Each CPC shall ensure that the information in paragraph 5 is transmitted to:
  - a) the FMC at least once every 4 hours;
  - b) the competent authority of another CPC when the vessel in the e-RAV first appears inside the EEZ of the other CPC on a given trip and is not transiting and not authorised to fish in that CPC's EEZ, except for port entry in accordance with Resolution 16/11 on Port State Measures.<sup>23</sup> The format of the VMS data will be determined by the flag CPC and will be provided by email. The flag CPC is encouraged to provide ongoing vessel position reports while the vessel remains inside the EEZ of another CPC; and
  - c) the Secretariat at least once every 4 hours for vessels participating in the IOTC VMS pilot of a regional VMS system.

<sup>2</sup> The competent authority is as published on the IOTC website for MCS purposes (see RESOLUTION 19/04 *Concerning The IOTC Record Of Vessels Authorised To Operate In The IOTC Area Of Competence*, paragraph 7).

<sup>3</sup> A register of national regulations on transit and/or innocent passage, including notice form and contact details is available on the IOTC website, see <https://iotc.org/regulation-transit-innocent-passage>.

8. A CPC that receives information under paragraph 7.b, shall ensure this information is treated as confidential, not distributed to another CPC without permission from the flag CPC, and destroyed once the flag CPC provides an explanation of the vessel's activities and the data is no longer needed for compliance purposes. The CPC receiving information under paragraph 7.b shall report back via email to the competent authority of the flag CPC confirming this information has been destroyed.
9. Notwithstanding paragraph 7, where a CPC cannot meet a particular reporting obligation under paragraph 7, the CPC shall develop a Capacity Implementation Plan for submission to the Executive Secretary and the Compliance Committee. The CPC may work with the Secretariat to draft the Capacity Implementation Plan that:
- a) clearly identifies and explains what is preventing that CPC from meeting the obligation;
  - b) identifies the capacity assistance needed to allow that CPC to meet that obligation including an estimate of costs and, if possible, sources of funding and technical assistance; and
  - c) sets out an anticipated timeframe, if the identified assistance is provided, for the CPC to be able to meet that obligation.

10. 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 including where applicable AIS in accordance with Paragraph 10bis.

10bis Each CPC shall ensure that all fishing vessels flying its flag and subject to paragraph 1 are equipped with and operate an Automatic Identification System (AIS) when operating within waters under the national jurisdiction of another CPC.

- a) AIS equipment shall be in accordance with the requirements of the International Maritime Organization including the International Convention for Safety of Life at Sea (SOLAS) and shall be maintained in continuous operation at all times with the configuration of sending AIS alerts at a frequency decided by the Coastal State, in accordance with its national regulations;
- b) AIS signals shall not be intentionally switched off, except where permitted under applicable national and international rules for the protection of navigational safety and security;
- c) Any interruption in AIS transmission shall be immediately reported within a time period decided bilaterally between the Flag State and Coastal State to the Flag State and to the Coastal State in whose waters the vessel is operating;
- ~~a)d)~~ AIS data may be used by CPCs, in conjunction as a complementary tool for cross-checking with VMS, for the purposes of compliance monitoring, including the detection and investigation of illegal, unreported and unregulated (IUU) fishing activities.

~~10,11.~~ 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 onboard 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.

~~11,12.~~ 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**.

~~12,13.~~ 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 5 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.

~~13.~~14. 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.

~~14.~~15. 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. The IOTC Secretariat shall compile reports prior to the annual Session of the Commission and present a report to the IOTC Compliance Committee. Based on these reports, the Commission will discuss how best to proceed with future consideration of VMS to support its Conservation and Management Measures.

16. 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.

~~15.~~17. CPCs are encouraged to implement the provisions relating to AIS in accordance with their respective capacities, with a transitional implementation period of up to [two years], as from [1 January 2028].

~~16.~~18. Resolution [25/02](#) *On establishing a Vessel Monitoring System 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 4, or have been tampered with, it shall immediately notify the IOTC Executive Secretary and the vessel's Flag State.
- B) Masters and owners/licenseses 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. Masters and owners/licenseses shall in particular ensure that:
- a) VMS reports and messages are not altered in any way;
  - b) the antennae connected to the satellite monitoring device(s) are not obstructed in any way;
  - c) the power supply of the satellite monitoring device(s) is not interrupted in any way; and
  - d) the vessel monitoring device(s) are not removed from the vessel.
- C) A vessel monitoring device shall be active within the IOTC area of competence. 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 5 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 7 of the Resolution and E of this Annex, or has reasons to doubt the correctness of the data transmissions under paragraphs 7 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.

H) In the event of a technical failure or non-functioning of the Automatic Identification System (AIS) equipment on board a fishing vessel operating within waters under the national jurisdiction of another CPC, the master, owner or their representative shall immediately notify the competent authorities Fisheries Monitoring Centre (FMC) of the Flag State and, where applicable, the Coastal State in whose waters the vessel is operating, the vessel shall continue to transmit Vessel Monitoring System (VMS) data in accordance with paragraph 7 of this Resolution, and the AIS equipment shall be repaired or replaced within one month and, in any case, no later than one month following detection of the failure.