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IOTC-2021-VMSWG03-R[E]

Report of the Third Meeting of the Vessel Monitoring System Working Group

Held by video-conference, 13 December 2021

DISTRIBUTION:

Participants in the Meeting
IOTC CPCs
Chairperson IOTC
Chairperson IOTC Compliance Committee
Chairperson IOTC Scientific Committee

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HOW TO INTERPRET TERMINOLOGY CONTAINED IN THIS REPORT

The VMSWG03 Report has been written using the following terms and associated definitions so as to remove ambiguity surrounding how particular paragraphs should be interpreted.

Level 1: *From a subsidiary body of the Commission to the next level in the structure of the Commission:*

RECOMMENDED, RECOMMENDATION: Any conclusion or request for an action to be undertaken, from a subsidiary body of the Commission (Committee or Working Party), which is to be formally provided to the next level in the structure of the Commission for its consideration/endorsement (e.g. from a Working Party to the Scientific Committee; from a Committee to the Commission). The intention is that the higher body will consider the recommended action for endorsement under its own mandate, if the subsidiary body does not already have the required mandate. Ideally this should be task specific and contain a timeframe for completion.

Level 2: *From a subsidiary body of the Commission to a Contracting Party or Cooperating Non-Contracting Party (CPC), the IOTC Secretariat, or other body (not the Commission) to carry out a specified task:*

REQUESTED: This term should only be used by a subsidiary body of the Commission if it does not wish to have the request formally adopted/endorsed by the next level in the structure of the Commission. For example, if a Committee wishes to seek additional input from a CPC on a particular topic, but does not wish to formalize the request beyond the mandate of the Committee, it may request that a set action be undertaken. Ideally this should be task specific and contain a timeframe for the completion.

Level 3: *General terms to be used for consistency:*

AGREED: Any point of discussion from a meeting which the IOTC body considers to be an agreed course of action covered by its mandate, which has not already been dealt with under Level 1 or level 2 above; a general point of agreement among delegations/participants of a meeting which does not need to be considered/adopted by the next level in the Commission's structure.

NOTED/NOTING: Any point of discussion from a meeting which the IOTC body considers to be important enough to record in a meeting report for future reference.

Any other term: Any other term may be used in addition to the Level 3 terms to highlight to the reader of the IOTC report, the importance of the relevant paragraph. However, other terms used are considered for explanatory/informational purposes only and shall have no higher rating within the reporting terminology hierarchy than Level 3, described above (e.g. **CONSIDERED; URGED; ACKNOWLEDGED**).

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1. OPENING OF THE MEETING

1. The meeting was held online, via Zoom, on 13 December 2021.
2. The List of Participants is provided in [Appendix 1](#). A total of 20 participants (5 Member States and two observers) attended the meeting. The third meeting of the Vessel Monitoring System Working Group (VMSWG03) was chaired by Mr Stephen Ndegwa (Kenya).

2. INTRODUCTION OF MEMBERS

3. The Chair of the VMSWG03 **INVITED** participants to introduce themselves.

3. ADOPTION OF THE AGENDA

4. VMSWG03 **ADOPTED** the Agenda in [Appendix 2](#) without amendment.

4. PRESENTATION OF THE DRAFT VMS OBJECTIVES

5. VMSWG03 **NOTED** paper [IOTC-2021-VMSWG03-02](#), on the draft objectives of the VMS provided by the European Union (EU).
6. VMSWG03 **NOTED** that the mention of transparency does not mean that the information would be publicly available but would apply to transparency between CPCs and with the IOTC Secretariat.
7. VMSWG03 **AGREED** to the following objectives:

The objective of the VMS is to support the Commission in ensuring sustainable fisheries of the stocks covered by the organization. By providing accurate and reliable information on the location and activities of the vessels fishing those stocks the VMS will reinforce the Monitoring, Control and Surveillance mechanisms of the Commission and will:

- a) Improve monitoring, control and surveillance capabilities of CPCs to ensure compliance with the IOTC Conservation and Management Measures;
 - b) Enhance the cooperation and coordination on monitoring, control and surveillance mechanisms in the IOTC Area between coastal, flag and inspecting CPCs;
 - c) Increase transparency among CPCs and the IOTC Secretariat, and promote a level playing field on the control of fishing activities relating to IOTC regulated stocks;
 - d) Prevent, detect and deter illegal, unreported and unregulated (IUU) fishing;
 - e) Obtain accurate, reliable and easily usable positioning data to be used for scientific research and fisheries management.
8. VMSWG03 **NOTED** the proposed recitals in paper ([IOTC-2021-VMSWG03-02](#)) and **AGREED** that they would be included in the preamble or elsewhere in a proposed revision of Resolution 15/03, as appropriate.

5. FINALISE THE SCOPE AND APPLICATION OF THE VMS.

9. VMSWG03 **NOTED** that the Commission had not presented a clear objective for the VMS to the VMS Working Group and **RECALLED** that VMSWG01 had agreed to use the scope defined in paragraph 1 of Resolution 15/03 in the first instance ([IOTC-2021-VMSWG01-R](#), para 12).
10. VMSWG03 **NOTED** the size class breakdown of vessels provided under section 1.3 of the Options Paper ([IOTC-2019-WPICMM02-VMS Study](#)).

11. VMSWG03 **NOTED** that if all vessels over 12m length overall were included, over 90 per cent of vessels would be covered by the VMS measure, and **FURTHER NOTED** that if only those that are currently subject to the VMS measure were included, more than half would not be covered.
12. VMSWG03 **NOTED** that including all vessels over 12m length overall might imply a need for amending other Resolutions, which is beyond the scope of the VMSWG, and **FURTHER NOTED** that the IOTC Agreement does not differentiate size of vessel and nor does it distinguish between exclusive economic zones (EEZ) and high seas, so there may be legal scope for expanding VMS beyond the criteria of vessels to be included in the Record of Authorised Vessels.
13. VMSWG03 **NOTED** the importance of a buffer zone, and **FURTHER RECOGNISED** that there may be difficulties in implementing VMS over disputed areas.
14. VMSWG03 **AGREED** that the VMS should include all vessel types, including carrier, supply and support vessels.
15. VMSWG03 **NOTED** that some carrier vessels are not flagged to CPCs and **FURTHER NOTED** this might cause some difficulties to the coverage of the VMS.
16. VMSWG03 **AGREED** that non-CPC-flagged carrier vessels be requested to transmit VMS and if they fail to do so they can be excluded from the Record of Authorised Carrier Vessels.
17. VMSWG03 **AGREED** that all vessels above 12m length overall be the preferred option and included irrespective of whether they operate inside or outside the EEZ, and **FURTHER AGREED** that this may be achieved gradually by increasing VMS coverage from present requirements under Resolution 15/03, particularly for developing coastal States.
18. VMSWG03 **AGREED** that a buffer zone be set at 20nm from a coastal State's EEZ or, as an alternative, reporting 24 hours prior to the entry to the EEZ.

6. DEVELOP POSSIBLE FUNDING MODELS AND OPTIONS FOR FUNDING THE IOTC VMS

19. VMSWG03 **RECALLED** the analysis and three options presented in section 4.3.4 of the Options Paper ([IOTC-2019-WPICMM02-VMS Study](#)), namely (1) a simple increase in Commission budget, proportional to CPCs contributions, (2) a greater proportion of additional funds from flag CPCs and (3) some form of cost recovery from vessels.
20. VMSWG03 **NOTED** that the option of cost recovery related to vessels using VMS might be complicated by frequent entries into and deletions from the Record of Authorised Vessels and **FURTHER NOTED** that coastal States will benefit from VMS even if they have no vessel on the Record of Authorised Vessels.
21. VMSWG03 also **NOTED** that due to the extended coverage of the VMS, CPCs with smaller vessels or coastal States, could be particularly affected by the implementation of a cost recovery solution based on vessels using VMS.
22. VMSWG03 **RECALLED** the table on p33 of the Options Paper ([IOTC-2019-WPICMM02-VMS Study](#)), which presents three different total cost scenarios and **NOTED** that costs increase in accordance with the total number of vessels covered and with the frequency of VMS data transmission.
23. VMSWG03 **NOTED** that if CPCs process VMS data themselves, the size and personnel required for the VMS centre would be reduced significantly, and **FURTHER NOTED** that the capacity of internet services and the number of staff would have to be considered when deciding the location of the VMS system.

24. VMSWG03 **REQUESTED** that the IOTC Secretariat prepare a table presenting overall cost implications for each CPC, resulting from different numbers of vessels covered (depending on size ranges) and reporting frequencies.
25. VMSWG03 **AGREED** that a simple increase in the Commission budget (Option 1) to finance the VMS was preferred, since it was the most equitable and practical option.
26. VMSWG03 **AGREED** that the current four-hourly reporting interval be maintained as a starting point, with the possibility of step-wise increases.
27. VMSWG03 **AGREED** that an analysis be carried out to determine the staffing, infrastructure, extra costs and data security that would be required.

7. CONSIDER IMPROVEMENTS THAT CAN BE MADE TO RESOLUTION 15/03

28. VMSWG03 **NOTED** the proposed amendments in Attachment 2 in the Options Paper ([IOTC-2019-WPICMM02-VMS Study](#)), and **FURTHER NOTED** the proposals presented to VMSWG03 in the Proposed Draft VMS Objectives ([IOTC-2021VMSWG03-02](#)).
29. VMSWG03 **RECALLED** that any amendments to Resolution 15/03 should be submitted to the Commission by a CPC or co-sponsored by CPCs participating in the VMSWG.
30. VMSWG03 **AGREED** that scope in terms of vessel size would be decided at higher levels, based on proposed revisions in paragraphs 2 and 2bis of [Appendix 3](#).
31. VMSWG03 **REQUESTED** the Secretariat to circulate a revised version of proposed amendment to Resolution 15/03 for consideration by the Members of the VMSWG.

8. DATE AND PLACE OF THE NEXT VMS WG MEETING(S)

32. VMSWG03 **AGREED** that the next meeting would be held virtually on 25 January 2022.
33. VMSWG03 **NOTED** that it would be desirable to provide a report on the progress of the work undertaken by the VMSWG to the next meeting of the Working Party on the Implementation of Conservation and Management Measures (WPICMM).

9. OTHER BUSINESS

34. VMSWG03 **NOTED** that there was no other business.

APPENDIX 1 LIST OF PARTICIPANTS

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APPENDIX 2
CONFIRMED AGENDA

AGENDA FOR THE THIRD MEETING OF THE VMS WORKING GROUP

Date: 13 December 2021

Location: Virtual

Time: 11:00 – 15:00 Seychelles Time

Chair: Mr Stephen Ndegwa, **Vice Chair:** Mr Johnny Louys

1. Opening of the meeting (Chair).
2. Introduction of members (Members).
3. Adoption of the Agenda (Members).
4. Presentation of the draft VMS objectives (EU).
 - 4.1 Discussions on the draft VMS objectives (Members).
5. Finalise the Scope and application of the VMS (Members).
6. Develop possible funding models and options for funding the IOTC VMS (Members).
7. Consider improvements that can be made to Resolution 15/03 (Members).
8. Date and place of the next VMS WG meeting(s) (Members).
9. Other business (Members).

APPENDIX 3

PROPOSED REVISION TO RESOLUTION 15/03¹

Preamble [Changes yet to be discussed and agreed]

1. [New paragraph 1] The objective of the VMS is to support the Commission in ensuring sustainable fisheries of the stocks covered by the organization. By providing accurate and reliable information on the location and activities of the vessels fishing those stocks, a secure, web-based, near real-time, user-friendly VMS will reinforce the Monitoring, Control and Surveillance mechanisms of the Commission and will:
- a) Improve monitoring, control and surveillance capabilities of CPCs to ensure compliance with the IOTC Conservation and Management Measures;
 - b) Enhance the cooperation and coordination on monitoring, control and surveillance mechanisms in the IOTC Area between coastal, flag and inspecting CPCs;
 - c) Increase transparency among CPCs and the IOTC Secretariat, and promote a level playing field on the control of fishing activities relating to IOTC regulated stocks;
 - d) Prevent, detect and deter illegal, unreported and unregulated (IUU) fishing;
 - e) Obtain accurate, reliable and easily usable positioning data to be used for scientific research and fisheries management.
2. [Ex para 1 of 15/03] Each Contracting Party and Cooperating Non-Contracting Party (CPC) shall adopt a satellite-based vessel monitoring system (VMS) for all vessels² 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.
- 2bis. Each Contracting Party and Cooperating Non-Contracting Party (CPC) shall adopt a satellite-based vessel monitoring system (VMS) for all vessels¹ flying its flag of 12 metres in length overall or above fishing for species covered by the IOTC Agreement within the IOTC area of competence
- 2ter [Proposed by consultant for the record] ~~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, as follows:~~
- ~~a) All vessels³ greater than 24m;~~
 - ~~b) All vessels operating outside of the flag CPC's EEZ; and~~
 - ~~c) All domestic only⁴ longline, purse seine, pole and line, carrier and bunker vessels greater than 15m.~~
3. [Ex para 2 of 15/03] Those CPCs currently without a VMS for any additional vessel now

¹ Amendments to the text of Resolution 15/03 agreed by the VMSWG03 are presented in red underlined font, whilst amendments proposed in the Options Paper and accepted by the VMSWG03 are presented only in red font.

² "All vessels" means fishing vessels including carrier vessels and supply vessels.

³ ~~"All vessels" means fishing vessels and any vessel operating in support of fishing vessels including, but not limited to carriers, bunkers and purse seine tender/supply vessels.~~

⁴ ~~"domestic only" means vessels that are only authorised to operate in the flag CPC's EEZ~~

meeting the criteria for inclusion in the VMS obligation since Resolution 06/03 was superseded, as defined in paragraph 2 above, shall submit an implementation plan to the Compliance Committee in [date] that sets out a phased approach to full implementation of their national VMS obligation within a maximum of three years from the date of this Resolution becoming binding.

4. [Ex para 3 of 15/03] 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 [date] in respect of those vessels
5. [Ex para 4 of 15/03] 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.
6. [Ex para 5 of 15/03] Information collected in respect of each vessel covered under paragraph 2 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.
7. [Ex para 6 of 15/03] Each CPC shall take the necessary measures to ensure that their land-based national Fisheries Monitoring Centre (FMC) receives through the VMS the information required in paragraph 6, 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
8. [Ex para 7 of 15/03] Each CPC shall ensure that the information in paragraph 6 is transmitted to the FMC and the IOTC Secretariat 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.
9. [New paragraph] Each CPC shall ensure that information is transmitted to the Secretariat, [in near real time] automatically, and that the information provided shall not be altered in any way. The information shall be provided either a) through the flag State FMC, or b) directly from the vessels.
10. [Ex para 8 of 15/03] 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;
 - c) be capable of providing specific automated reports when powered off or on; and

- d) be capable to providing automated reports when the antenna is blocked⁵
- 11 [New paragraph] In addition, each CPC as a flag State shall ensure that the vessel monitoring device(s) on board its vessels have the following capabilities:
- a) be able to be programmed to provide automatic reports when the vessel enters or exits designated areas⁶
 - b) be able to be remotely prompted to provide position reports outside of regular reporting intervals [note - may be low priority if short reporting intervals are agreed]; and
 - ~~c) Able to provide location data described in paragraph 5 directly to multiple (at least two) recipients.~~
12. [Ex para 9 of 15/03] 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**.
13. [Ex para 10 of 15/03] Fishing vessels referred to in paragraph 2 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 6 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.
14. [Ex para 11 of 15/03] 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.
- 15 [Ex para 12 of 15/03] 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 [Ex para 13 of 15/03] CPCs are encouraged to extend the application of this Resolution to their fishing vessels not provided for in paragraph 2 if they consider this to be appropriate to ensure the effectiveness of IOTC Conservation and Management Measures.
17. [Ex para 14 of 15/03] Resolution ~~0615/03~~ *On establishing a Vessel Monitoring System Programme* is superseded by this Resolution.

⁵ Seychelles **AGREED** to provide clarification on what is meant by the term “antenna is blocked”.

⁶ VMSWG03 **AGREED** this should be made optional or revised.

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 5, 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 of competence are at all times fully operational. Masters and owners/licensees 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) [No change proposed – although port State consent should be considered in approval to turn VMS off] 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 ~~30 days~~ one month. ~~CPCs shall ensure that the vessel returns to port before the conclusion of this period and does not commence a fishing trip until the CPCs FMC has confirmed that the satellite tracking device is functioning correctly. 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 replaced⁷.~~
- 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,

⁷ The underlined text in red, is the original text from 15/03 that the Options Paper had recommended be deleted.

or their representative, shall also communicate to the FMC of the Flag State the information required in paragraph 6 of the Resolution every four hours, by email, facsimile, telex, telephone message or radio⁸.

- F) When the Flag State has not received for 12 hours data transmissions referred to in paragraphs 8 of the Resolution and E of this Annex, or has reasons to doubt the correctness of the data transmissions under paragraphs 8 of the Resolution and E of this Annex, it shall as soon as possible notify the master or the owner or the representative thereof, **and the manual reporting provisions in paragraph E shall commence immediately**. 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) [No change proposed – but more real-time arrangements will be required for the provision of manual reports to the Secretariat once option 3 is implemented] 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.

⁸ VMSWG03 **AGREED** Seychelles shall provide a draft text for the Annexes regarding the role of the Secretariat with respect to the handling of VMS data received