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## ELECTRONIC MONITORING RELATED TERMS AND DEFINITIONS

PREPARED BY: IOTC WGEMS Chair/Vice-Chair  
and IOTC SECRETARIAT, 1 JUNE 2022

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### PURPOSE

To ensure that participants at the 2<sup>nd</sup> Working Group on the Development of Electronic Monitoring Programme Standards (WGEMS) revise, consider and adopt the Electronic Monitoring Terms and Definitions as required by the WGEMS Terms of Reference endorsed by the IOTC Scientific Committee and Commission.

### BACKGROUND

Electronic Monitoring Systems is a proven technology to collect fishery information, including when external circumstances prevent human observers from being deployed onboard, and complement human observers to address the data requirements under IOTC Resolution 22/04 On a Regional Observer Scheme.

The IOTC Scientific Committee in 2020 (SC23) noted that EMS is a very promising tool for enhancing observer coverage and complement data collected by onboard observers. The SC23 also acknowledged the importance of including all different stakeholders in the discussions around Electronic Monitoring Standards (i.e., scientists, EMS designers/vendors, fishermen, representatives from the industry) to improve its current approach and contribute to EM Programme Standards by providing technical advice on the operational aspects of their implementation.

IOTC SC23 also recommended that an ad-hoc, intersessional Working Group on the development of EM Programme Standards be constituted to further progress with the definition of EMS minimum standards as well as on the implementation of electronic monitoring projects by CPCs in support of the Regional Observer Scheme (ROS). The Commission at its 25th meeting (June 2020) endorsed the recommendation of the Scientific Committee and created the ad-hoc working group on the Development of Electronic Monitoring Programme Standards (WGEMS).

The first meeting of the WGEMS was held in November 2021 to discuss the potential for electronic monitoring (EM) implementation for tuna fisheries in the IOTC and to develop a roadmap and next steps in progressing these initiatives. The WGEMS adopted its Terms of References and the WGEMS workplan, which were subsequently endorsed by the Scientific Committee in 2021 and, recently, by the IOTC Commission at its annual meeting on May 2022. The endorsed IOTC WGEMS Terms of References (see Appendix IV of IOTC-2021-WGEMS01-R) identify the need to develop and adopt EM related terms and definitions. Ideally, EM related terms and definitions adopted by the IOTC should align and harmonize with the definitions that have been adopted in other tuna RFMOs (e.g., [IATTC C-21-03](#)).

### DISCUSSION

Participants at the WGEMS02 are requested to discuss, consider and adopt the EM related Terms and Definitions as requested by WGEMS Terms of References.

### RECOMMENDATION/S

That the WGEMS:

- 1) **NOTE** paper IOTC–2022–WGEMS02–03, which encouraged the WGEMS to further develop and refine EM related terms and definitions to align and harmonize with the definitions that were adopted in other tuna RFMOs.
- 2) **ADOPT** the EM related Terms and Definitions and **RECOMMEND** to the WPDCS and Scientific Committee for its consideration and potential endorsement.

### APPENDICES

**Appendix A:** DRAFT: Electronic Monitoring related Terms and Definitions.

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## Appendix A

## ELECTRONIC MONITORING RELATED TERMS AND DEFINITIONS

**Electronic Monitoring (EM):** the use of electronic devices to record and monitor fishing vessel's activities using video technology, including sensors, linked to a Global Position Systems (GPS).

Eliminado: integrated with

**Alternative (IATTC definition): Electronic Monitoring (EM):** The use of EM equipment to record a vessel's activities

Con formato: Fuente: Negrita

**Electronic Monitoring System (EMS):** all the vessel and shore-based components for collecting, analysing and reporting of EM records and implementing an EM Program.

**Alternative (IATTC definition): Electronic Monitoring System (EMS):** A system for implementing EM aboard vessels, and for collecting, processing, and analyzing the resulting EM records.

Comentado [HMI]: The reason for this is the word of "all", that can be interpreted 100% of EMS coverage, but at this stage we cannot see the necessity for 100% of coverage.

**EM program:** a process administered by a national or regional administration that regulates the use of EM systems on vessels to independently collect and verify fisheries data and information responsible through an implementing of an EMS in a defined area and/or fishery.

**EM Program standards:** the agreed standards, specification and procedures (SSP) governing the establishment and operation of an EM Program, applicable to all components of the EM system.

**EM Data standards:** the agreed data requirements by the IOTC Regional Observer Scheme (ROS) that should be collected by the EM System.

**EM records:** Imagery and sensor raw data recorded by an e-monitoring equipment that can be analysed to produce EM data.

**EM Data:** processed/analysed data produced through analysis of EM records that conforms with the EM data standards.

**EM equipment:** a network of electronic cameras, sensors and data storage devices installed on a vessel and used to record the vessel's activities.

**EM analysis:** the analysis of EM records to produce EM data.

**EM analyst:** a person qualified to review and analyze EM records, store and produce EM data in accordance with the EM Data standards and analysis procedure.

**EM review system:** application software used by the EM analyst to review and analyze the EM records and produce the processed EM data as per the EM data standards.

**EM review center:** local, national, or regional office facility where EM records are received and analyzed to produce and record EM data.

**EM review provider:** a third-party provider of EM review services to analyse EM records to produce EM data. The same third-party organization can provide both the EM equipment and EM review service but they can also be provided by different providers.

**EM coverage:** the proportion of vessels (or effort) by fleet that have an e-monitoring equipment and system installed and operational.

**EM review or analysis rate:** the proportion of e-monitored records (of vessel/fleet/trips/sets) that are reviewed/analysed to produce EM data.

**EM service provider**: a third-party provider of EM equipment (and/or system), technical and logistical services.

**EM service certified**: a third-party organization which is accredited by the appropriate national or regional authority to inspect and approve EM systems and equipment to ensure that EM data standards can be collected.