

ELECTRONIC MONITORING RELATED TERMS AND DEFINITIONS

PREPARED BY: IOTC WGEMS, 10 NOVEMBER 2022

PURPOSE

To agree and adopt Electronic Monitoring Terms and Definitions as required by the WGEMS Terms of Reference for the IOTC Scientific Committee and Commission endorsement.

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. 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 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.

DISCUSSION

The 2nd meeting of the WGEMS (June, 2022), including the participation of different stakeholders (i.e., scientists, EMS designers/vendors, fishermen, representatives from the industry, managers), discussed 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 also discussed EM related terms and definitions to harmonize the discussion around Electronic Monitoring Standards and facilitate the development of EM minimum standards. The WGEMS agreed to an intersessional process to continue discussing EM related terms and definitions. **This paper presents the agreed EM related terms and definitions arising from the WGEMS intersessional work.**

Participants at the WPDCS18 are requested to discuss, consider and adopt the WGEMS agreed EM related Terms and Definitions as requested by WGEMS Terms of References.

RECOMMENDATION/S

That the WPDCS18:

- 1) **NOTE** paper IOTC–2022–WPDCS18–32, which provides the WGEMS agreed EM related terms and definitions.
- 2) **ADOPT** the EM related Terms and Definitions and **RECOMMEND** to the Scientific Committee for its consideration and potential endorsement.

APPENDICES

Appendix A: WGEMS Agreed Electronic Monitoring related Terms and Definitions.

Appendix A

ELECTRONIC MONITORING RELATED TERMS AND DEFINITIONS

Electronic Technologies (ET): any electronic tool that is used to support fisheries-dependent data collection, both on shore and at sea, including electronic reporting (ER) and electronic monitoring (EM).

Electronic Reporting (ER): the use electronic systems (application, software, form or file) to record, store, receive and transmit fisheries data.

Monitoring: the requirement for the continuous collection of fishery-related data (adapted from FAO, 1994).

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

Electronic Monitoring System (EMS): the system comprising the vessel and shore-based components for collecting, transmitting and reviewing EM records, reporting of EM data and implementing an EM Program.

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

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

EM data standards: the agreed subset of data requirements by the IOTC Regional Observer Scheme (ROS) that could be collected by the EMS.

EM records: Imagery, and possibly sensor, raw data linked to positional data collected by an EM equipment that can be reviewed to produce EM data.

EM data: processed/analysed data produced through review 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.

Vessel Monitoring Plan (VMP): The vessel's EM equipment characteristics and how the vessel's EM equipment is installed and configured to monitor fishing activities and meet the EM Program and EM Data Standards as required by the IOTC Regional Electronic Monitoring Program.

EM review: the review of EM records by EM observers/reviewers to produce EM data.

EM observer/reviewer: a person qualified to review 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 observer to review 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 reviewed to produce and store EM data.

EM review provider: a third-party provider of EM review services to review EM records to produce EM data. The same third-party organization can provide both the EM equipment and EM review services but they can

also be supplied by different providers.

EM installation coverage: the proportion of vessels by fleet that has EM equipment installed that is operational.

EM record coverage: the proportion of fishing effort for which EM records are collected by installed EM equipment.

EM observer/review coverage: the proportion of fishing effort for which EM records are reviewed to produce EM data and submitted to the IOTC.

EM service provider: a third-party provider of EM equipment (and/or system), technical and logistical services to maintain the EM equipment and monitor its proper functioning.