



Electronic Monitoring Workshop
Thursday 18th – Friday 19th July 2024
Wellington, New Zealand

AGENDA ITEM. 1	EM Work plan
PAPER NUMBER:	WP.5
Summary This paper provides information on the Electronic Monitoring (EM) related initiatives undertaken in the last few months and those going forward to the end of the year and seek Members input. Recommendations: The meeting is invited to: <ol style="list-style-type: none">1. Discuss the EM initiatives planned for the next 6 months.2. Provide any further input to the EM work for the coming year.	

Introduction

1. There have been a number of regional initiatives in the past years, some of which are provided in the background paper in WP.1.

EM Work plan for 2024

2. The EM related work undertaken so far and plan for the rest of the year is in **Annex 1**.

3. Members are invited to provide views and input to what may be priority EM work for the coming year, to assist with planning of these for the upcoming year.

EM Related work from the DCC Strategic Plan 2023 - 2027

4. The endorsed DCC Strategic Plan 2023 - 2027 has a list of elements and activities required, prioritized with appropriate milestones for their development or implementation, with respect to EM monitoring of the longline fishery. **Annex 2** below provides a summary of the elements that were

identified as 'High' priority with milestones targeted for 2024 with a summary of the update made by SPC to the ROCW24 (ROCW24-IP-1) against these elements.

Outstanding Issues from the EM SSP work

5. There are a number of outstanding issues highlighted in the development of the FFA EM SSPs. These relates to:

- i. **Interoperability** (the requirement for EM analysis software to be able to facilitate the generation of EM Data from all EM Records that will be reviewed in the DRC);
- ii. **Multi-zone EM Records partitioning** (the division of EM Records at the end of a trip that may have been collected in more than one EEZ and/or the high seas and are being reviewed by different DRCs);
- iii. **Allocation of Roles** such as those for the FFA Secretariat, SPC, and national fisheries authorities in EM programme administration and management;
- iv. **Auditing and oversight** of the regional EM Programme and who the appropriate body is to carry out that role;
- v. **Standardised regional templates/formats** (can support regional harmonisation and implementation of the regional EM Programme);
- vi. **Timeframe for retention, disposal** (for EM Records and EM Data will vary according to national programme requirements and national laws and a regional minimum standard is dependent on decisions around the regional EM Programme structure and governance);
- vii. **Optional component** in Annex 4.4 (SSP4) (contains highly specific SSPs **on Evidential Integrity and Chain of Custody**, which requires further consideration on the level of detail and specificity that will be required by national EM Programmes and the regional EM Programme).

6. Most of the outstanding issues above require further discussion and decision by Members and a lot depends on the institutional and governance framework of what a regional EM Programme may look like. The standardised template (in (v) above) is something that could be progressed for Members consideration and is included in the work plan in Annex 1. However, this workshop would not have the space or time for discussion on the above issue but is highlighted here as a reminder that these are still outstanding and would need Members discussion and decision in the future.

Annex 1: EM Work plan for 2024

ER / EM work for 2024	2024	April				May				June				July				Aug				Sept				Oct				Nov				Dec			
		Wk	1	2	3	4	1	2	3	4	5	1	2	3	4	1	2	3	4	5	1	2	3	4	1	2	3	4	5	1	2	3	4				
EM LL Min Data Fields	Lead																																				
FFA/SPC+FJ,FSM,AU initial discussions of EM LL Min Data fields + 2024 work	done																																				
Tidy up document from 15/16 April 2024 SPC/FFA discussion	Ána																																				
Check for alignment with existing SSPs, where relevant	Ána																																				
Check against ROP min data fields (relevant to TTM)	Ána/Tim																																				
Review and tidy up the EM protocols (column)	Mald/Leontine																																				
Continue developing JSON format	Bruno/Epal/Brian																																				
Include transshipment related data fields *	Tim/Ána																																				
DCC -3days - to consider EM LL min data fields @SPC (13th May -) **	SPC/FFA/FJ/FSM/SBA/UNZ																																				
ERandEM WG																																					
FFA Members pre-ERandEMWG - virtual (before 31 May, tentatively 30 May)	FFA/SP																																				
ERandEM WG - virtual (31 May)	FFA/SP																																				
ERandEM WG - at SC20 - PH (14-21 Aug)	FFA/SP																																				
ERandEM WG - at TCC20 - FSM (24 Sept-1 Oct)	FFA/SP																																				
ERandEM WG - at WCPFC21 - FJ (1-6 Dec)	FFA/SP																																				
Explore potential for a regional database of annotated images (FFC126-2023 tasking)																																					
Consultant started in WK3 April																																					
Workshop - Regional database of annotated images - possibly in NZ/HIR ***	FFA/SP																																				
Consultant - final report																																					
Final report - circulated to Members																																					
Final report - presented to FFC in Oct for decision (& possibly to a pre-MOC session)																																					
EM SSPs																																					
Review EM SSPs - for what aspects are a must/could/should - part of the ERandEMWG6 prep																																					
Relevant outstanding issues - discussion with suppliers in July w/s	Mald/Leontine																																				
Review EM SSPs against other RFMO's EM SSPs eg. IOTC	FFA/SP																																				
Feedback from Members on the EM SSPs -																																					
EM national work																																					
FSM - legislative work (29 Apr-3 May; Legal Advisor+FSM @ANCORS)	FFA/FSM																																				
Action FSM request once recieved - EM assistance (hardware + testing Starlink)	FFA																																				
Tonga - EM trial	FFA/SP																																				
KIR - EM trial	FFA/SP																																				
RMI - EM assistance	FFA/SP																																				
SB - EM assistance (funds for Satlink contract 2024/25)	done																																				
FJ - review legislation (to confirm with Fiji the need for legislation review & any o	FFA																																				
Other EM work																																					
EM Review Rate - SPC to reiew relevant paper and provide advice	SPC																																				
Develop VMP - SPC	SPC																																				
Develop regional templates																																					
blue = meeting/workshop, either virtual/physical																																					

Annex 2: DCC Elements and activities with required prioritized with appropriate milestones for their development or implementation with respect to EM monitoring of the longline fishery, with updates (based on SPC update to ROCW24 – IP1) against those classified as ‘High’ priority with milestones for 2024.

Categories	Elements with reference numbers from the source document	Priority	Milestone	Update base on ROCW24 – IP1 from SPC
3. Implementing Operational EM Specifications, Standards and Procedures (SSPs)	3.1. EM Records Analysis and Development of EM Data	High	mid-2024	Draft Minimum EM LL data fields were established at DCC 2020. Based on the review of EM data provided, a JSON formatted DCC Longline EM Minimum Data Fields Standard was developed and is being tested by countries and EM service providers towards adoption
	3.1.1. EM records compatibility	Medium	2025	
	3.2. EM Quality Assurance Processes	High	mid-2024	An EM module is now available in the TUFMAN2 regional fisheries database. Data Quality Checks are used as one facet of the Quality Assurance process. The protocols for the verification or review of a proportion of the EM data as well as validation of the data through comparison with other sources e.g. logbook, unloadings etc. are yet to be developed.
	a) EM Data Quality Review (verification) protocols		mid-2024	
	b) EM Data Quality Validation	Medium	2024	
	c) EM data quality reviews and audits	Low	2027	
	3.3. EM transmission, traceability and interoperability standards	Medium	2024	
	a) Standard codes, formats, and ontologies	Medium	2025	
	b) DCC minimum standards for EM Data transmission and storage in a machine-readable format (i.e. JSON, XML, or CSV).	Medium	2025	

	c) EM records metadata standards for storage, filing and retrieval	Medium	2025	
	d) Metadata standards for evidential Integrity and Chain of Custody procedures of EM records and EM data are regionally harmonised.	Medium	2025	
4. DCC's role in other monitoring data standards.	a) A review of longline transshipment monitoring standards	High	mid-2024	There are interim minimum data standards for transshipment observers in place, and monitoring using them began in April 2023. They are due to be reviewed by the IWG-ROP in late 2024.
	b) An assessment of the collection of the EM longline draft minimum data fields	Medium	2025	
	c) Adjustments to e-logs for purse seine operations	Medium	2025	
	d) FAD log standards	Medium	2025	
	e) Revision and rationalisation of observer data fields, which should consider those required fields that can either be: i) assessed or verified through EM, or ii) accurately recorded by fishers.	High	2023	SPC has worked with WCPFC to revise the ROP data fields, these were tabled at the WCPFC19 annual meeting in 2024. They will be reviewed presumably at the ROP-IWG in 2024.
	f) Port sampling standards	Medium	2024	
	g) Biological sampling	Low	2024	
	4.1. EM LL beyond cameras (sensors, measuring fish, calibrating)	Low	2026	
	4.2 Electronic Reporting (ER) protocols	High	2023	SPC has developed three ER applications as alternatives to paper-based systems. (OnBoard – elog app. OnShore – e-port sampling app. and OLLO – longline observer app.). PNA has developed iFIMs for purse seine observers to use.

				<p>SPC has been training vessel operators, observers and port samplers in use of the relevant applications and training is continuing in country as the apps are adopted by members.</p> <p>An e-debriefing module is now available in Tufman2, allowing observer programmes to conduct a debriefing directly in Tufman2 for data uploaded via OLLO. A manual is planned to be published in 2024 for using this module.</p>
	4.2 ER Debriefing processes	Low	2025	
		Low	2023	
5. Longline Monitoring Coverage Levels		High	2024	The new CMM2023-01 is an incentive for longline fleets to increase their monitoring coverage above 5% using a combination of observers and EM.
6. Integrated Monitoring Systems Quality Assurance	6.1 Validation	High	2024+	TUFMAN2 integrates multiple sources of data, such as observers' logsheets and unloadings and can facilitate cross-validation for Quality Assurance.
	6.1 Catch Documentation Schemes	Low	2024	
	6.2 Access to, and Dissemination of Data.	Low		