Western and Central Pacific Fisheries Commission

TECHNICAL AND COMPLIANCE COMMITTEE
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Annual Report on the Performance of the E-Reporting Standards

Submitted by the Secretariat and the SSP

Purpose

1. This paper provides an update on CCM's use of E-reporting technology to submit data to WCPFC and the extent to which their reporting aligns to the WCPFC voluntary E-reporting standards, specifications and procedures (E-reporting SSPs).

Background

2. The Secretariat is required to report annually on the performance and application of the E-reporting SSPs and to recommend any improvements or modifications.[1]

3. In 2016, WCPFC adopted general E-reporting SSPs that, at the time, included catch and effort data and observer data E-reporting standards. Other forms of E-reporting standards were expected to be included over time. In 2018, the Commission agreed to an administrative process allowing the Secretariat to make minor changes to the E-reporting SSPs that reflect the Commission's decisions. To date, E-reporting SSPs have been adopted for:
    a. Operational catch and effort data in 2016[2];
    b. Observer data in 2017[3]; and
    c. Transhipment notifications and declarations in 2018.[4]

4. In 2014, WCPFC established the Electronic Reporting and Electronic Monitoring Working Group (ERandEM-IWG) to facilitate the development of SSPs for electronic reporting and electronic monitoring technologies in WCPFC fisheries as a priority task.[5] Currently, this IWG is focused on developing the key initial elements of an Electronic Monitoring (EM) programme and the associated standards.

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[1] Paragraph 7 of the E-reporting SSPs
[2] WCPFC13 Summary Report paragraph 584 and Attachment T
[3] WCPFC14 Summary Report paragraph 401 and Attachment T
[4] WCPFC 15 Summary Report Attachment S
[5] Meeting information for the ERandEM-IWG

Reporting on the voluntary uptake and performance of the E-reporting standards

*E-reporting Standards for operational level catch and effort data*

5.   The voluntary uptake of WCPFC E-reporting of operational level catch and effort data has steadily increased over the past six years through the installation of SPC's *Onboard* application on vessels.[6] This application applies the *JSON* standard for data transfers into SPC's TUFMAN2 which meets E-reporting SSPs. Alignment to the E-reporting standards for operational catch and effort data has already been made mandatory for all purse seine fleets licensed to fish in the PNA waters that supply E-reported logsheet data from the PNA FIMS/iFIMS system to SPC as the WCPFC Scientific Service Provider.

6.   **Table 1** in **Annex 1** shows the status of implementation of E-reporting for each CCM and whether it aligns to the standards. **Table 2** in **Annex 1** shows the number of individual vessels for each of the Small Island Developing States (SIDS) that have submitted data via the *Onboard* application since 2019, and the number of trips during that time.

7.   **Figures 1 and 2** below show the trend for Pacific Islands' (or Small Island Developing States (SIDS)) use of E-reporting for long line and purse seine catch and effort reporting since 2015.

Figure 1: Number and percentage of trips in the Pacific Islands longline fishery that use E-reporting to submit catch and effort data

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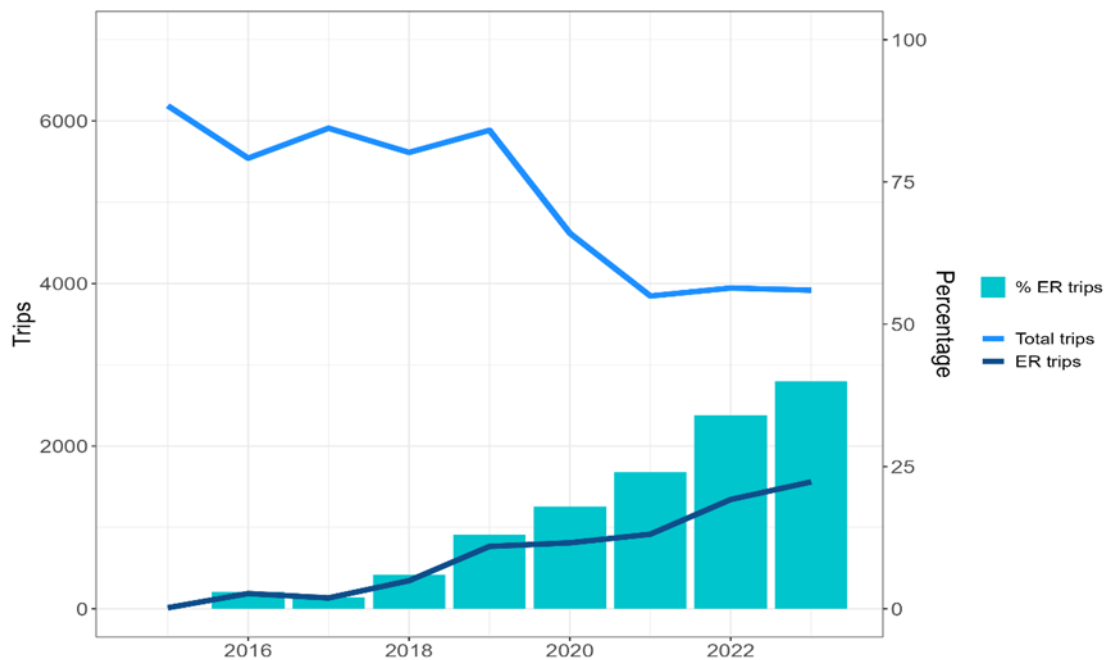
[6] An E-reporting tool that allows longline vessels to collect operational catch and effort data and send this directly to SPC's TUFMAN2 database.

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Figure 2: Number and percentage of trips in the Pacific Islands purse seine fishery that use E-reporting to submit catch and effort data
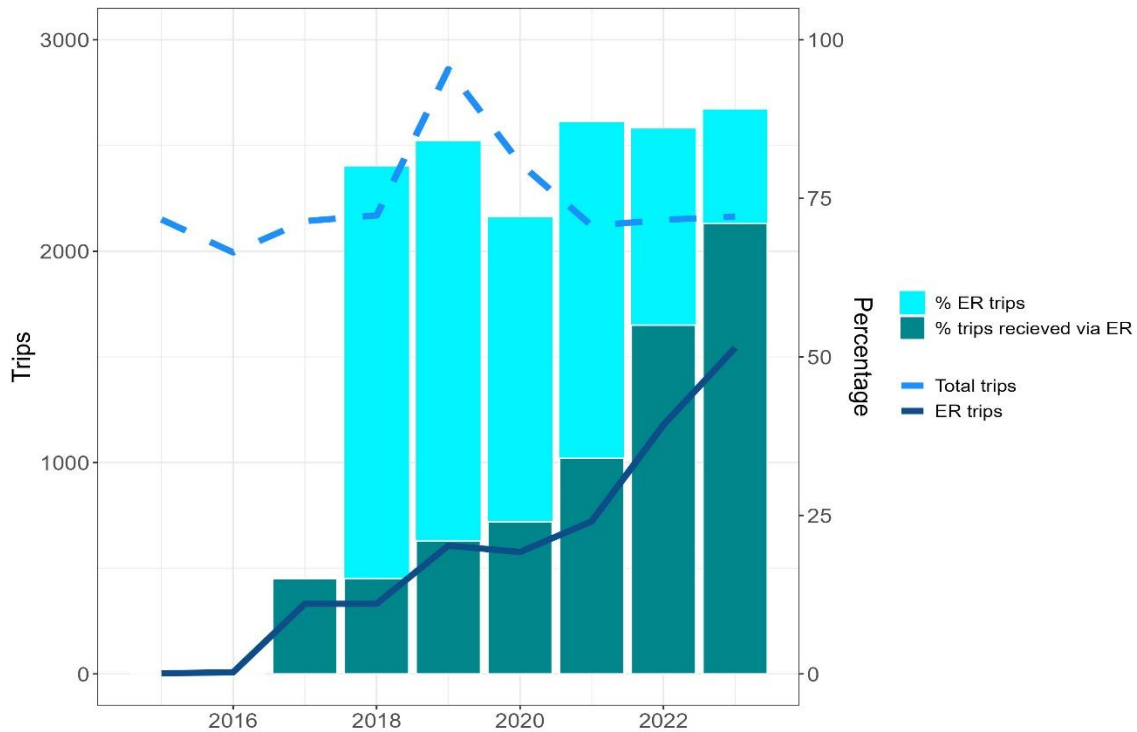
8. SPC continues to promote the use of E-reporting (and alignment to the ER SSPs) through regular training workshops for masters of SIDS CCM vessels on installing and using *Onboard*. SPC is also collaborating with the PNA iFIMS development team to improve the reception of their longline data following the *JSON* E-reporting SSPs.

9. CMM 2022-06 relating to Daily Catch and Effort Reporting took effect on 1 January 2024 and requires that flag CCMs ensure vessel masters keep daily electronic logs of catch and effort data and provide this electronically to their relevant authority unless exempt[7]. In turn, this information is to be submitted to WCPFC and where possible, in accordance with the relevant E-reporting SSPs.

Uptake of E-reporting Standards for data from the Regional Observer Programme

10. All national observer programmes from SIDS CCMs, the PNA-managed FSM Arrangement observer programme, and US Treaty observer programme have their observer data entered into the SPC-managed TUFMAN2 system. This system produces data for the WCPFC ROP database that is aligned to the WCPFC E-reporting SSPs for observer data.

11. All submissions of purse seine observer data held in the WCPFC ROP database continue to align with the WCPFC E-reporting standards for observer data. Several CCMs continue to ensure their longline observer data submissions aligns with the WCPFC E-reporting SSPs for observer data, including Chinese Taipei, Japan, Korea, and USA. Overall, 94% of 2023 longline observer data held in the WCPFC ROP database aligns to the WCPFC E-reporting standard.

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[7] Paragraph 1 of CMM 2022-06

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12. There are several E-monitoring initiatives currently underway throughout the region, and the current system used in some SIDS CCMs (provided by the Technical Service Provider SATLINK) exports data that aligns to the WCPFC E-reporting Observer Standards. **Table 3** below shows the number of E-monitoring data reviews of longline sets by national EM programmes from 2015 – 2023.[8] The high variability in the number of reviews can largely be attributed to activity and data generated during E-monitoring trials (years of high review) compared to data generated from EM implementation.

Table 3: Annual longline E-Monitoring (EM) data reviews (sets), by national EM programme, 2015–2023

	E-MONITORING DATA (Sets reviewed)								
	2015	2016	2017	2018	2019	2020	2021	2022	2023
Australia	56	420	528	489	525	418	403	344	294
Fiji	222	621	2170	1510	484			93	114	
French Polynesia								171	1
FSM		311	314	21	30	210	10		63
Marshall Islands			810	629	310				
Palau		102	159	56					
Solomon Islands			74	25					
Vanuatu			41	43	23				

NOTES: According to data submitted to SPC, 2023 values are provisional

E-reporting Standards for high seas transhipment declarations and notices

13. The Secretariat's Transhipment Electronic Reporting System (TSER) is used for E-reporting of WCPFC high seas transhipment notifications and declarations, and meets the WCPFC E-reporting standards.[9] The Secretariat uses TSER to enter transhipment reports submitted by email from CCMs. Korea and Chinese Taipei have been voluntarily entering their own high seas transhipment reports directly into TSER since February 2020 and September 2019, respectively. More than 70% of transhipment reports submitted by all CCMs are directly entered. The Secretariat is progressing work with the remaining CCMs involved in high seas transhipments to increase the level of direct reporting.

14. The Secretariat continues to support CCMs with direct entry of their transhipment reports into TSER. Most remaining CCMs involved in high seas transhipments that are not already directly entering their data are continuing to progress internal work on this. The Secretariat is currently assessing the status of this work and where it could facilitate the work. For some CCMs, their internal work includes the development of an Application Programming Interface (API) that will potentially support their transitioning to E-reporting.

Commission activities that may result in changes to E-reporting standards

Update on the development of E-monitoring reporting standards by the ERandEM-IWG

15. The ERandEM-IWG has progressed consideration of framework issues and minimum technical standards relating to onboard systems and data review during 2022 and 2023. Accordingly, the Chair of this IWG is seeking advice from SC20 and TCC20 on a proposed approach for interim EM standards to be considered by WCPFC21. As this work progresses, the requirements and supporting implementation needs, including reporting, will be clarified.

Implementation of observer transhipment reporting

16. In 2022, the Commission adopted initial data fields and standards for observer transhipment reporting with effect from 1 April 2023. SPC continues to facilitate the interim implementation of this reporting through FFA Regional Observer Programmes, and other CCM national observer programmes are also moving towards implementing this requirement. The Secretariat and SPC are receiving some transhipment observer reports.

17. Commission decisions are required to determine the data needed to support new transhipment requirements, which are being developed by the Transhipment and Regional Observer Programme Intersessional Working Groups (TS-IWG and IWG-ROP). Once the data requirements are established, additional WCPFC E-reporting observer data SSPs can be developed.

Summary of potential improvements to data

18. The Commission periodically identifies improvements to data and how that data is collected that may result in the need to update or develop new WCPFC E-reporting SSPs. Current areas for potential change are:

   a. WCPFC19 and WCPFC20 taskings to the TS-IWG on their review of transhipment monitoring;
   b. WCPFC19 and TCC18 and TCC19 taskings to the IWG-ROP to enhance data fields collected by observers;
   c. Outcomes from SC20, and expected outcomes from TCC20 and WCPFC21, including current proposals relating to:
      i. shark and mobulid observer data collection,

      ii. IWG-ROP proposals to refine and improve data collection,

      iii. species based management plans and their monitoring strategies such as for skipjack and south pacific albacore,

      iv. proposals for an interim EM programme and noting a report on electronic monitoring of transhipments that utilized a digital scale integrated with the onboard EM system to automatically store transmitted weights; and

      v. recommending options for monitoring and reporting of various data fields relating to Fish Aggregation Devices (FADs) be developed by the FAD Management Options IWG (FADMO-IWG).

d. TCC19 considerations and issues highlighted at WCPFC20 that require review of some CMMs and their effectiveness, including clarification of reporting requirements and better data collection for sea turtles, seabirds and sharks, noting the need to advance work for less commonly caught species interaction and the utility of electronic technologies to complete monitoring and estimation of their interactions;

e. WCPFC20 taskings that require the Secretariat to establish data exchange arrangements with other RFMOs relating to transhipment activity, observer reports and carrier vessel data; and

f. Review of reporting gaps and data needs to support monitoring and verification of reported data and information on vessels and vessel related activity through the Compliance Monitoring Scheme.

Update on the potential use of FLUX[8] for exchanging information between WCPFC and the European Union

19. The TCC Workplan 2022-2024 contains a priority task to continue development of the Commission's Information Management System (IMS) to support MCS activities, including exploration of IMS data submission and extraction tools. This included a 2022 task for consideration of the integration of a FLUX protocol to support the data reporting by the EU, to be funded by the EU through a grant agreement with the Secretariat. The grant agreement was signed in November 2022 and provided €23,500 to the Secretariat to retain a consultant to scope and report on the feasibility of implementing a FLUX node in the Secretariat's IMS to connect the EU and WCPFC and, depending on the results of the scoping exercise, the development of a work plan to implement the FLUX node.

20. Trackwell, the Commissions VMS service provider, carried out the scoping study and following discussions with EU, focused its study on assessing the feasibility of implementing a FLUX node for Catch and Effort data held by the Secretariat.

21. The study was completed in May 2024 and concluded that there were no technical constraints preventing the Secretariat from developing a FLUX interface with WCPFC e-reporting standards, and that Trackwell has a module that could be enhanced to support WCPFC e-reporting needs. Excluding potential SPC and WCPFC resource costs, the timeframe for a vendor to implement the FLUX reporting system would be 2-3 months. The one-time cost to enhance the module is USD $130,000 and the ongoing cost is estimated to be USD $32,000 in annual maintenance and hosting fees. The Secretariat seeks guidance from TCC20 on whether the Secretariat should proceed to implement a FLUX node and if so, provide advice on funding arrangements based on the abovementioned costs, to support its implementation.

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[8] See https://unece.org/trade/uncefact/unflux for more information on FLUX.

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Table 1: Status of E-reporting implementation and CCM alignment to WCPFC E-reporting standards in 2023

Flag CCM	Gear(s)	Status of ER Implementation	Submitted to SPC via ER[9]	Aligns to ER Standards (non-binding)	Notes
Australia	LL	100%	NO	NO	"as of 2021, all reporting in the [Eastern Tuna and Billfish Fishery] (ETBF) is done via electronic logbooks"
China	LL	3%	See Table 2 of Annex 1	NO	
	PS	100%		YES	Obligation to use PNA iFIMS eLOG system
Cook Islands	LL	None identified	See Table 2 of Annex 1	YES	Logbook data are entered directly into SPC Tufman 2 system
	PS	100%		YES	Logbook data are entered directly into SPC Tufman 2 system
Ecuador	PS	None identified		NO	
El Salvador	PS	None identified		NO	
European Union	LL	100%	NO	NO	"The data hereby included have been obtained from mandatory electronic logbooks for 2022 activity." SC19 EU Annual Report Part 1
	PS	None identified			
Federated States of Micronesia	LL	None identified	See Table 2 of Annex 1	YES	
	PS	100%		YES	Obligation to use PNA iFIMS eLOG system
Fiji Islands	LL	6%	See Table 2 of Annex 1	YES	SPC-developed E-Reporting Onboard system
French Polynesia	LL	89%	See Table 2 of Annex 1	YES	SPC-developed E-Reporting Onboard system
Indonesia	LL	Partial	NO	NO	E-PIT system developed for logbook
	PS	Partial	NO	NO	E-PIT system developed for logbook

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[9] Submitted to the SSP via integrated data exchange without requirements for manual data entry

Flag CCM	Gear(s)	Status of ER Implementation	Submitted to SPC via ER[9]	Aligns to ER Standards (non-binding)	Notes
Japan	LL	None identified	NO	NO	
	PS	Partial		NO	Obligation to use PNA iFIMS eLOG system in PNA EEZs and adjacent high seas. ER not used elsewhere
Kiribati	LL	None identified	NO	YES	
	PS	100%		YES	Obligation to use PNA iFIMS eLOG system
Republic of Korea	LL	100%	NO	NO	Full E-Reporting system in place since 2018
	PS	100%		YES	Obligation to use PNA iFIMS eLOG system
Marshall Islands	LL	None identified	NO	YES	
	PS	100%		YES	Obligation to use PNA iFIMS eLOG system
Nauru	PS	100%		YES	Obligation to use PNA iFIMS eLOG system
New Caledonia	LL	53%	See Table 2 of Annex 1	YES	SPC-developed E-Reporting Onboard system
New Zealand	LL	100%	NO	NO	"… in 2017-2019 catch/effort reporting system was incrementally replaced by Electronic Reporting (ER)…"
	PS (domestic)	100%	NO	NO	
	PS (tropical)	100%	NO	YES	Logbook data are entered directly into SPC Tufman 2 system
Niue	LL	(inactive)		YES	
Palau	LL	None identified	NO	YES	
Papua New Guinea	LL	None identified	NO	YES	
	PS	100%		YES	Obligation to use PNA iFIMS eLOG system
Philippines	PS (domestic)	Partial	NO	YES	Some vessels in this fleet use MARLIN an E-Reporting system which is currently being replaced.
	PS (DWFN)	100%		YES	Obligation to use PNA iFIMS eLOG system

Flag CCM	Gear(s)	Status of ER Implementation	Submitted to SPC via ER[9]	Aligns to ER Standards (non-binding)	Notes
Samoa	LL	None identified	See Table 2 of Annex 1	YES	SPC-developed E-Reporting Onboard system
Solomon Islands	LL	None identified	NO	YES	
	PS	100%		YES	Obligation to use PNA iFIMS eLOG system
Chinese Taipei	LL	100%	See Table 2 of Annex 1	YES	"All tuna longliners have been reporting their fishery data through e-logbook, and the catch and effort data is compiled from e-logbook data." SC19 Chinese Taipei Annual Report Part 1
	PS	100%		YES	Obligation to use PNA iFIMS eLOG system
Tonga	LL	92%	See Table 2 of Annex 1	YES	SPC-developed E-Reporting Onboard system
Tuvalu	LL	None identified	NO	YES	
	PS	100%		YES	Obligation to use PNA iFIMS eLOG system
United States	LL	100%	NO	NO	"Electronic reporting of daily fishing logbooks began testing and implementation in 2019 and was mandated for use in the entire Hawaii longline fleet from 2021 onwards"
	PS	100%		YES	Obligation to use PNA iFIMS eLOG system
Vanuatu	LL	18.5%	See Table 2 of Annex 1	YES	SPC-developed E-Reporting Onboard system and fishing company ER system
	PS	100%		YES	Obligation to use PNA iFIMS eLOG system
Vietnam	LL/HL	NO	NO	YES	Logbook data are entered directly into SPC Tufman 2 system
	PS	NO	NO	YES	Logbook data are entered directly into SPC Tufman 2 system
Wallis and Futuna	LL	(inactive)		Wallis and Futuna	

Table 2: The number of longline trips and vessels by flag CCM that have submitted data using *Onboard* since 2019

Flag CCM	2019		2020		2021		2022		2023	
	Trips	Vessels	Trips	Vessels	Trips	Vessels	Trips	Vessels	Trips	Vessels
Cook Islands	38	11	21	6	15	5	22	2		
China	17	11	24	11	6	6			7	7
Fiji	25	5	9	1	19	5	1	1	25	13
Federated States of Micronesia	20	10	9	6	9	7				
French Polynesia	308	28	336	35	469	56	828	73	1044	77
New Caledonia	47	3	50	3	59	5	115	15	167	14
Samoa	31	3	5	1						
Tonga	27	3	15	2	60	3	92	5	120	5
Chinese Taipei			1	1	9	3	7	2	21	4
Vanuatu	3	1	10	1	1	1				