TECHNICAL AND COMPLIANCE COMMITTEE
Fifteenth Regular Session
25 September – 1 October 2019
Pohnpei, Federated States of Micronesia

ANNUAL REPORT ON THE COMMISSION VMS

WCPFC-TCC15-2019-RP01
11 August 2019

Paper by the Secretariat

Purpose

1. The purpose of this paper is to present the Annual Report of the Commission VMS for the consideration of TCC15.

Introduction

2. The Annual Report for the Commission VMS is prepared in accordance with the VMS SSPs requirements paragraph 7.3.9 and 7.3.10.

3. The structure of the paper is as follows:

- Background and Introduction
  - SLA with FFA
  - Contracts with MCSPs
- Commission VMS database
- List of WCPFC Approved MTUs/ALCs
- VMS Audit Report
- Manual Position reporting
- Provision of High Seas VMS Data in support of MCS Activities
- Update on tasking from WCPFC14
- Security and Integrity of the Commission VMS
- Recommendations

Background and Introduction

4. Article 24(8) of the Convention obliges each Member of the Commission to require its fishing vessels that fish for highly migratory stocks on the high seas of the Convention Area to use an ALC/MTU which meets agreed WCPFC Standards, Specifications and Procedures, while in these areas. To implement this requirement, the Commission has adopted CMM 2014-02 Commission Vessel Monitoring System Conservation and Management Measure, a set of Standards, Specifications and Procedures (SSPs) which were initially approved in 2008 (WCPFC5) and that were most recently modified in 2019 (WCPFC15), and an updated set of Standard Operating Procedures (SOPs) were approved in 2018 (WCPFC15).

5. Additionally, in 2012 (WCPFC9) the Commission adopted a Statement of Purpose and Principles for the Commission VMS. The stated purpose of the Commission VMS is "to cost-effectively monitor the activities of fishing vessels authorized by flag States to fish for highly migratory fish species in the Convention Area in areas beyond jurisdiction of the Flag State. Data collected by the Commission VMS will be securely stored and used by the Commission and its Members, Cooperating Non-Members, and Participating Territories (CCMs) to achieve compliance with Conservation and Management Measures (CMMs), fisheries scientific analysis and sound fisheries management decision-making in the Convention Area."

6. The Commission VMS primarily covers high seas waters of the Convention Area. WCPFC9 agreed to a decision related to the application of the Commission VMS solely to waters under the jurisdiction of Members and to complement and support Members' national VMS. Since the "Flick the Switch" proposal was approved at WCPFC9 eleven CCMs - have provided letters of notification for the Commission VMS to cover their EEZ. Since 8 April 2016, to date no additional CCMs waters have been included in the coverage of the VMS.[1]

7. The approved structure of the Commission VMS system allows vessels to report to the WCPFC through two ways: i) directly to the Commission VMS, or ii) to the WCPFC through the FFA VMS. There are several contracts that the Secretariat maintains to facilitate the necessary arrangements for the Commission VMS. These are described in the paragraphs below.

Service Level Agreement with FFA

8. Paragraph 7.3.3 of the SSPs requires, in part, the Secretariat to develop and manage a service level agreement (SLA) with the FFA for provision of VMS services. This SLA was signed by the Secretariats of the WCPFC and FFA in early December 2008, and the Commission VMS became operational in April 2009. VMS service is provided through the Service Level Agreement with FFA and since 30 June 2016, the service provider has been TrackWell.

9. There are now 136 users from 36 CCMs, however only 30 users from 13 CCMs are actively using the system. The list of CCMs with user logins to the Commission VMS is provided in **TCC15-2018-RP08_Annex 3**. A breakdown of when user accounts were created are shown below in **Table 1** (below).

10. The Secretariat presently has no matters of note to raise for TCC's attention with respect to the Service Level Agreement with the FFA.

[1] The list of CCMs who have approved for their EEZ to be covered by the WCPFC VMS is provided at this link https://www.wcpfc.int/vessel-monitoring-system

Table 1. Number of VMS Users by CCMs and year user account was created

CCM / approved user	2016	2017	2018	2019	Total
Australia	2		7		9
Canada			5	1	6
China	4				4
Cook Islands	2	1			3
Ecuador	1				1
El Salvador	1				1
European Union	9				9
Fiji	1				1
France	6	1	1		8
Federated States of Micronesia	4				4
Indonesia	10				10
Japan	5				5
Kiribati	1				1
Korea	9				9
Liberia	1				1
Mexico	1				1
Marshall Islands	1				1
New Caledonia	10				10
Niue	1				1
Nauru	1		1		2
New Zealand	3	7	2		12
Panama	1				1
Philippines	6				6
Palau	2				2
Papua New Guinea	1				1
Samoa	1		1		2
Solomon Islands	1				1
Thailand	1				1
Chinese Taipei	4				4
Tokelau	1				1
Tonga	1				1
Tuvalu	1				1
Chinese Taipei	4				4
United States of America	4			1	5
Vietnam	1				1
Vanuatu	6				6
WCPFC Secretariat	8			1	9
Total Users	**116**	**9**	**17**	**3**	**145**

Contracts with Mobile Communications Service Providers

11. Paragraph 7.3.5 of the SSPs requires the WCPFC Secretariat to enter into, and to maintain, direct contracts with mobile communications service providers for the provision of position (and other) data from the MTUs/ALCs that are activated to report directly to the Commission VMS. For this purpose, the WCPFC Secretariat has contracts with:

- SpeedCast (formerly Satcomms Australia) – for Inmarsat C, D+ and Faria watchdog Iridium services;
- Collecte Localisation Satelites (CLS) – for Argos and Halios/Iridium services; and
- Vizada – an operational agreement for Inmarsat C DNID management.

12. At the time of preparing this paper, the specifics of the gateways for the following services were still to be finalized:

- Skywave
- SASCO
- Rom Communications
- MetOcean Telematics

13. The Secretariat presently has no other matters of note to raise for TCC's attention with respect to the Contracts with Mobile Communication Service Providers.

Commission VMS database

14. Paragraph 2.8 of the SSPs requires the Secretariat to administer a Commission VMS database. It further states that:

> *"For each fishing vessel required to report to the Commission VMS the flag CCM will submit all necessary data to complete its data file in the Commission's VMS database. This data will include the name of the vessel, unique vessel identification number (UVI), radio call sign, length, gross registered tonnage, power of engine expressed in kilowatts/horsepower, types of fishing gear(s) used as well as the make, model, unique network identifier (user ID) and equipment identifier (manufacturer's serial number) of the ALC that vessel will be using to fulfil its Commission VMS reporting requirements."*

15. To facilitate the submission of necessary vessel tracking data for each fishing vessel required to report to the Commission VMS, the Secretariat has provided for flag CCMs use a guideline VTAF form. VTAF forms (MS Excel, pdf, word format) are available on the WCPFC website: https://www.wcpfc.int/vessel-monitoring-system.

16. Some general statistics on the Commission VMS over time are provided in the following charts (**Figures 1-3**) below. Some summary information by flag about the current status of VTAF records is provided in **Table 2** below. As at 7 June 2019, there were 3796 vessels that were considered to be activated to report to the Commission VMS: 42% are reporting through Service Provider "Speedcast", 33% are reporting through FFA and 25% are reporting through CLS Argos. In addition, 5 SkyMate units were activated in 2018.

Figure 1. Vessel activations by year as of 30 June 2019.

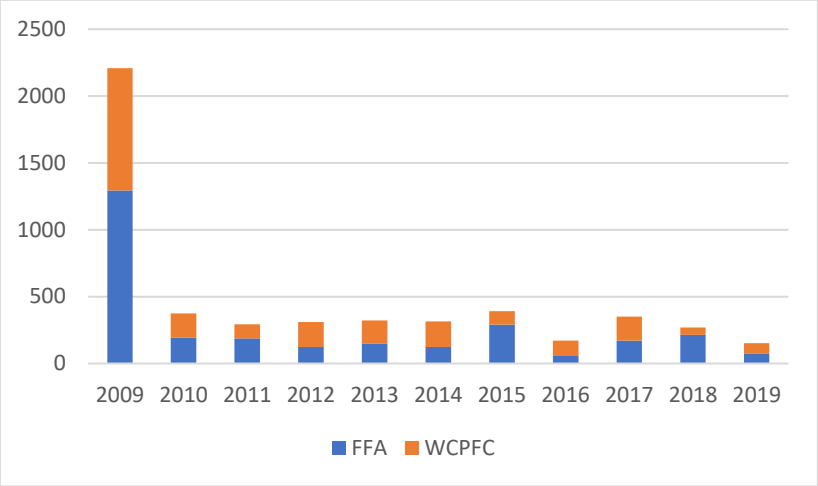


Figure 2. Number of VMS vessels against RFV, as of 7 June 2019.

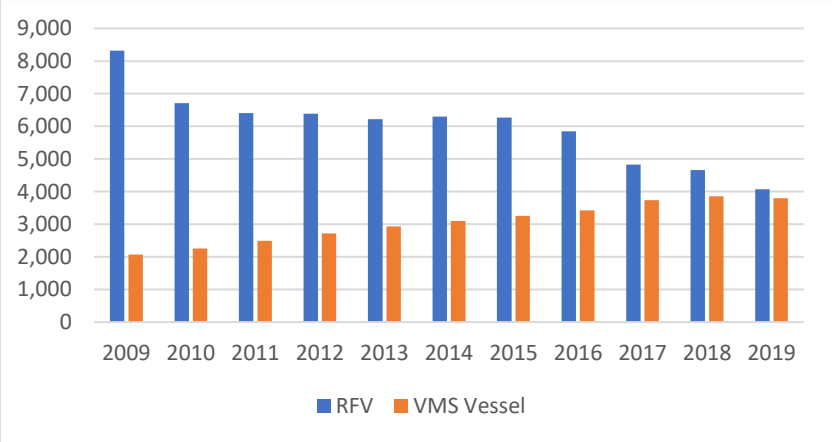
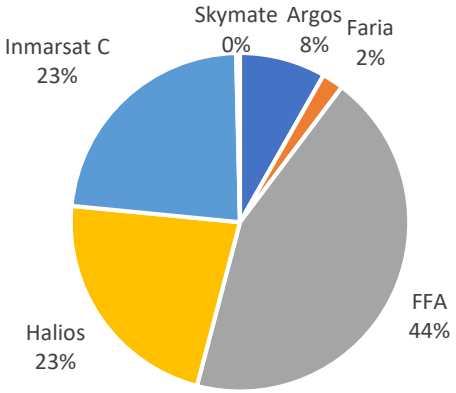


Figure 3. The percentage of vessels currently reporting by Channel on the Commission VMS, as of 7 June 2019.



17. Table 2 below lists the number of vessels with an "Active" status on the WCPFC Record of Fishing Vessels (Vessel_count), information available to the Secretariat on count of FFA good standing status (FFAGoodStanding_Cnt) and reported by the flag CCM as fished beyond its national jurisdiction (Fished_Cnt).

Table 2. Summary of the number of vessels by flag for which the Secretariat has VTAF data (VTAF record Cnt) in 2018 and 2019 and received position reports in areas covered by the Commission VMS (VMS Tracked Cnt). As at 7 August 2019)

	2018							2019						
CCM	Vessel Count	AFA Received Cnt	Fished Cnt	Did Not Fish Cnt	VTAF Recorded Cnt	FFA Good Standing Cnt	VMS Tracked Cnt	Vessel Count	AFA Received Cnt	Fished Cnt	Did Not Fish Cnt	VTAF Recorded Cnt	FFA Good Standing Cnt	VMS Tracked Cnt
AU	60	60	8	52	45	0	38	54	0	0	0	45	0	38
CA	15	15	0	15	2	0	0	16	0	0	0	2	0	0
CK	23	23	15	8	14	22	21	24	0	0	0	14	21	21
CN	634	634	365	269	449	304	368	635	0	0	0	460	278	376
EC	7	7	4	3	7	5	6	7	0	0	0	7	5	5
EU	78	77	5	72	18	5	6	78	0	0	0	18	4	6
FJ	70	70	39	31	13	62	39	72	0	0	0	13	59	29
FM	41	41	41	0	22	41	39	40	0	0	0	22	40	37
ID	19	19	0	19	1	0	0	22	0	0	0	1	0	0
JP	806	806	562	244	568	135	363	787	0	0	0	569	128	303
KI	32	32	18	14	11	23	21	18	0	0	0	11	14	14
KR	215	215	158	57	149	162	159	215	0	0	0	148	150	155
LR	29	29	4	25	8	4	6	27	0	0	0	7	5	8
MH	17	17	14	3	6	13	16	16	0	0	0	6	13	16
NC	16	16	3	13	11	0	7	16	0	0	0	10	0	0
NI								1	0	0	0	0	0	0
NR	2	2	2	0	2	2	2	3	0	0	0	2	3	3
NZ	3	3	2	1	3	1	2	4	0	0	0	4	1	4
PA	134	134	107	27	41	83	89	152	0	0	0	42	81	89
PF	78	78	0	78	0	0	0	76	0	0	0	0	0	0
PG	40	40	27	13	12	31	27	35	0	0	0	11	24	19
PH	414	413	293	120	217	55	252	412	0	0	0	217	55	242
SB	10	10	5	5	2	10	10	11	0	0	0	2	10	10
SV	4	4	2	2	3	2	2	4	0	0	0	3	2	2
TH	6	6	0	6	2	0	0	6	0	0	0	2	0	0
TO	1	1	0	1	0	0	0	1	0	0	0	0	0	0
TV	7	7	3	4	4	4	3	4	0	0	0	4	2	2
TW	1,622	1,622	651	971	849	171	509	1,069	0	0	0	852	172	486
US	229	229	187	42	189	37	200	219	0	0	0	189	32	192
VU	75	75	71	4	68	41	69	76	0	0	0	71	37	67
Grand Total	**4,664**	**4,685**	**2,586**	**2,099**	**2,716**	**1,213**	**2,254**	**4,092**	**0**	**0**	**0**	**2,732**	**1,136**	**2,124**

18. Table 3 below provides a count of vessels on the RFV by vessel type that report to the Commission VMS directly or through the FFA VMS.

Table 3. Count of vessels on the RFV by vessel type that report to the Commission VMS, through the FFA VMS and directly activate to report to the WCPFC VMS as at 30 June 2019.

	2017		2018		2019	
Vessel Type	**Direct**	**FFA**	**Direct**	**FFA**	**Direct**	**FFA**
Longline	1,160	826	1,121	835	1,041	775
Purse Seine	76	248	80	251	80	244
Carrier	98	156	98	150	94	139
Bunker	2	32	1	29	1	30
Troll	9		10		6	
Pole & Line	48	26	51	24	47	24
Other	134	1	126	2	121	1
Total	**1,527**	**1,289**	**1,487**	**1,291**	**1,390**	**1,213**

List of WCPFC Approved MTUs/ALCs

19. WCPFC15 approved an amendment to Section 2.7 of the VMS SSPs which came into effect in February 2019. Commencing in 2019, ALC/MTU units can now be included on the approved ALC/MTU list based on the Secretariat's Assessment that any newly nominated ALC/MTU meets the minimum standards and following a specified period after the circulation of this advice to all CCMs. The Secretariat's assessment is to be based on a review of the ALCs against minimum standards for the Commission VMS as set out in Annex 1 of CMM 2014-02 (or its successor measure) and as relevant, by determining that the ALC make and model has the ability to successfully report to the Commission VMS. The text of Section 2 paragraph 7 is:

> *7. The Secretariat will assess proposals for inclusion of additional ALC/MTU makes and models on this list from both CCMs and equipment manufacturers. The Secretariat shall include the ALC/MTU make or model being proposed on this list, if no CCM objects in writing within 30 days of the Secretariat circulating notice of its intent to all CCMs, and, if in the Secretariat's assessment, the ALC/MTU make or model meets the minimum standards for the Commission VMS as set out in Annex 1 of CMM 2014-02 (or its successor measure), the WCPFC SSPs, as relevant, by determining that the ALC/MTU make and model has the ability to successfully report to the Commission VMS, and by using the methodology established by the FFA with expenses for type approval processing to be borne by the proposing entity. Where the Secretariat concludes in its assessment that a proposed ALC/MTU make or model does not meet these requirements, or if a CCM objects in writing to the Secretariat's proposal to approve a new ALC/MTU make or model, the Secretariat within the annual report shall make recommendations regarding the proposed ALC/MTU make or model for the TCC's consideration and the Commission's approval. The Secretariat will recommend, as needed, to TCC the removal of units currently on the list of approved ALC/MTU makes and models that it has determined no longer meet the minimum standards set out in Annex 1 of CMM2014-02 (or successor measure), or do not have the ability to successfully report to the Commission VMS. If an ALC/MTU make and model is removed from the list of approved ALC/MTU types, flag CCMs will ensure that their fishing vessels replace non-type approved ALC/MTUs with approved ALC/MTUs by the next replacement of the ALC/MTU, but no later than three years after the Commission's decision.*

Update on requests for inclusions of new MTUs

20. In late July 2019, the Secretariat received two requests for inclusion of two new MTUs on the WCPFC approved list: one each from the United States of America and from the Philippines.

Model/Approved MTU Type	Manufacturer	Comm System	Service Provider
SKYMATE m1600	Skymate Inc.	Iridium	Skymate Inc.
SRT VMS-100S	SRT	Multiple	SRT

21. At the time of preparing this paper, the Secretariat had recently notified CCMs by Circular of its intention to include the **SKYMATE m1600** unit on the List of WCPFC Approved MTU/ALCs. The request related to **SRTVMS-100S** unit was still being considered by the Secretariat as per the VMS SSPs.

Update on activation of WCPFC15 approved MTUs

22. At WCPFC15, the Commission approved the addition to the WCPFC approved ALC/MTU list of the following ALC units:

Model/Approved MTU Type	Manufacturer	Comm System	Service Provider
Skywave IDP-690	ORBCOMM/Skywave	INMARSAT ISATDATA PRO	Skywave
ORBCOMM ST6100	ORBCOMM/Skywave	INMARSAT ISATDATA PRO	Skywave

Model/Approved MTU Type	Manufacturer	Comm System	Service Provider
iTrac101B (iTrac II)	MetOcean Telematics	Iridium SBD	MetOcean Telematics
BB3	SASCO	Iridium (mini LEO)	SASCO
BB5	SASCO	Iridium (mini LEO)	SASCO
RomTrax Wifi	Rom Communications	Iridium SBD	Rom Communications

23. At the time of preparing this paper, the Secretariat had received Vessel tracking data information for fifteen (15) vessels for these MTU units from two Members: 2 RomTrax Wifi; 2 BB5, 1 iTrac101B (iTrac II) and 10 Skywave IDP-690. At the time of preparing this paper, 14 of 15 activations[2] were pending due to delays in the process of establishing the necessary gateways between the WCPFC VMS and the Service Provider. TrackWell has advised the Secretariat that they have encountered difficulties in establishing the gateways due lack of response from the Manufacturer/MTU providers.

Update on FVT, MAR GE, MAR GE V2 and MAR GE V3 phase out

24. WCPFC14, the Commission agreed that "CCMs shall ensure that vessels flying their flag do not purchase, install or transfer the following VMS units: **FVT, MAR GE**, **MAR GE V2**, and **MAR GE V3** (all Argos units) and that they be removed from the WCPFC approved ALC/MTU list. The Commission further agreed that existing units on vessels shall be allowed to continue to operate for 5 years (until 1 January 2023). CCMs whose vessels use these models shall provide a list of vessels that are using the units to the Secretariat and shall update the list annually" (WCPFC14 Summary Report paragraph 424).

25. Japan provided an update in November 2018 and advised they will submit a further update in November 2019. Other CCMs have provided relevant MTU updates on a case by case basis in relation to these MTU units. Where additions **FVT, MAR GE**, **MAR GE V2**, and **MAR GE V3** have been requested, the Secretariat has sought confirmation that the installation date predates the WCPFC14 decision before updating the WCPFC MTU Register records.

26. A summary of the current status of the phase out of **FVT**, **MAR GE**, **MAR GE V2** and **MAR GE V3** ALC units is shown in **Table 4** below.

Table 4: Analysis of the current status of the phase out by CCMs of FVT, MAR GE, MAR GE V2 and MAR GE V3 ALC units – as at 6 August 2019

CCM	Vessel Type	Count of vessels on the RFV with an "active" MTU unit of this type (count of vessels CCM advised "fished" in 2018)			
		FVT	MAR GE	MAR GE V2	MAR GE V3
China	Longliner			5 (5)	11 (0)
Indonesia	Pole and Line		1 (0)		
Japan	Longliner		25 (25)	67 (64)	5 (5)
Korea (Republic of)	Longliner		1 (0)	1 (1)	
Liberia	Fish Carrier			2 (1)	
Philippines	Fish Carrier				1 (1)
Philippines	Support Vessel		2 (2)	46 (46)	39 (39)
Chinese Taipei	Longliner	2 (0)		42 (12)	
Vanuatu	Longliner	2 (0)	1 (2)	3 (3)	

[2] One vessels MTU new Vessel Tracking Details for the new MTUs are held on file in the Commission VMS database and not activated: the vessel is presently reporting to the WCPFC VMS through the FFA VMS.

GPS Week Number Rollover (WNRO) affecting FVT, MAR GE and MAR GE V2 units

27. In March this year, CLS provided notice to the Secretariat that on April 6, 2019 the **MAR GE V2**, **MAR GE V2A**, **MAR GET** and **FVT** VMS units will no longer send valid GPS data, such as the vessel's position, speed and heading (at that date, some GPS receivers will consider the position to be dated some 1024 weeks ago, which means 19 years and 8 months in the past).[3]

28. The Secretariat advised CCMs of this issue through Circular No:2019/18 dated 26 March 2019. The Circular also provided the CLS response "they have communicated with their global distributor network to inform the fishing companies using the specific VMS models that the latest firmware update will assist to avoid this issue. In addition, CLS will enact temporary measures commencing April 6 2019, so that affected units may continue to send VMS positions for these units by using the Argos Doppler positioning. CLS further advises that the "Argos Doppler position reports will still be provided within 4 hours, but Argos Doppler position reports are slightly less accurate compared to GPS (error below500 meters)."

29. As at 7 August 2019, and since the event a total of 105 vessels from 7 CCMs have stopped reporting (Longline-61, Fish Carrier-1, Pole and line-1, Support vessels-42). The Secretariat has advised the relevant CCMs of the VMS reporting issues through direct communications as well as through the monthly VMS reporting supporting files.

VMS Audit Report

30. Paragraphs 2.9 and 2.13 of the SSPs state that CCMs are to carry out a periodic audit of a representative sample of installed ALCs. The results of these audits are to be provided to the Commission by CCMs in the Part 2 Annual Report to the Commission (WCPFC VMS SSPs 7.2.2). Since 2013, the WCPFC Secretariat has provided CCMs with an electronic facility to report their MTU audit inspection results as shown in **Table 5** below.

[3] Since its launch, the GPS satellites have transmitted signals that use a 10-bit binary counter to represent the GPS Week Number, a key piece of the date and time information. Every 19.7 years this week number counter reaches its limit and rolls back to zero. The first GPS WNRO event occurred in 1999, and the second WNRO occurred on April 6, 2019.

Table 5. Number of MTU audits by type from 2014 to date.

MTU Model	MTU Manufacturer	2014	2015	2016	2017	2018	2019
RSS405A	Anritsu	5	2				
LEO	CLS ELTA	6	138	132	136	149	17
Thorium TST-100	CLS KENWOOD	104	126	71	83	213	13
CLS TRITON	CLS OROLIA			1	4	46	2
CLS TRITON ADV	CLS OROLIA				9	32	2
750VMS	Faria - Watchdog	5	5	29	40	46	
750VMS SB	Faria - Watchdog	9	45	16	20	17	
750VMS W/VTerm	Faria - Watchdog	168	44	2	7	38	
FELCOM10	Furuno			7			
FELCOM12	Furuno	3		6	1	1	
FELCOM15	Furuno	5	1				
FELCOM16	Furuno	269	257	217	237	189	2
FELCOM18	Furuno				1		
FELCOM19	Furuno		1	3	15	12	3
JUE-75C	JRC	1					
JUE-95VM	JRC	36	43	45	63	53	1
Skywave IDP-690	ORBCOMM/Skywave					3	
H1622D	Sailor	1					
ELB2004	SATLINK					2	
SKYMATE I1500 VMS	SkyMate Inc.				2	5	1
Sailor 3027D	Thrane & Thrane	2	22	1	1	4	
Sailor 6140	Thrane & Thrane	65	70	114	119	199	2
Sailor 6150	Thrane & Thrane	19	34	37	74	88	1
TT-3020C	Thrane & Thrane	2	2				
TT-3022D	Thrane & Thrane	75	99	36	25	15	1
TT-3026	Thrane & Thrane	9	12	4	3		
TT-3026D	Thrane & Thrane	33	31	19	7	1	
TT-3026S	Thrane & Thrane	57	67	53	20	20	
TT-3027M	Thrane & Thrane		30	27	19	11	
TT-3027S	Thrane & Thrane		1	1	2	3	
TT-3062D	Thrane & Thrane	2	2		5	1	
TNL 7001	Trimble	1	2				

**** MTUs to be PHASED OUT BY JANUARY 2023**

FVT	CLS SEIMAC	11					
MAR GE	CLS SERPE-IESM	5	5	4		11	
MAR GE V2	CLS MARTEC SERPE-IESM	22	25	25	2	40	
MAR GE V3	CLS MARTEC SERPE-IESM			44	8	47	

31. All CCMs that have vessels that were reported to have "fished" beyond its national jurisdiction in 2017 have carried out and reported MTU/ALC audit inspections from 2014 - 2019 for some of their flag vessels as shown in **Table 6** below.

Table 6. List of flag CCMs and number of MTU audits undertaken, compared to the count of vessels that the flag CCM advised fished in the Convention Area beyond its flag CCMs jurisdiction during 2018 as at 6 August 2019

Flag	Active on RFV in 2018	"Fished" in 2018	2014	2015	2016	2017	2018	2019
Australia	60	8	1	52				
Canada	15		2	2		1	2	
Cook Islands	23	15	8	13	11	6	17	1
China	634	365	215	346	348	303	298	
Ecuador	7	4		3	2	3	5	4
European Union	78	5	6	4	3	2	1	
Fiji	70	39	67	55	35	50	58	
Federated States of Micronesia	41	41	30	35	23	34	39	
French Polynesia	78							
Indonesia	19							
Japan	806	562	105	99	114	165	141	4
Kiribati	32	18	20	21	13	16	10	1
Korea (Republic of)	215	158	112	49	33	68	82	11
Liberia	29	4		1	3	4		3
Marshall Islands	17	14	11	11	11	11	14	
New Caledonia	16	3	17			4	7	
Nauru	2	2	3	1	2	2	2	
New Zealand	3	2	3	2	2	1	2	2
Panama	134	107	20	10	14	4	9	
Papua New Guinea	40	27	7	11	1	5	19	
Philippines	414	293	118	142	132	30	232	
Solomon Islands	10	5		3	4	9		
El Salvador	4	2	4	2	2	3	1	
Thailand	6							
Tonga	1							
Tuvalu	7	3	1	2	1	8	2	
Chinese Taipei	1622	651	5	7	17	34	161	
United States of America	229	187	154	151	100	108	113	19
Vanuatu	75	71	6	42	22	32	31	

32. Table 7 below provides a summary of the aerial surveillance, High Seas Boarding and Inspection and other remote MCS activities where Article 25 requests for investigation related to VMS violations were noted since 1 January 2015. Of note in 2018, there were thirty-nine (39) instances where Article 25 requests for investigation related to VMS violations were noted, and from 1 January to 31 July 2019 there were eight (8). The outcomes of most flag CCM investigations in 2018/19 to date, were that the flag CCM advised that their review of the evidence did not support a finding of a violation by the vessels, nine advised of some sort of Infraction.

Table 7. Summary of outcome of flag CCM investigations of alleged infringements that were notified to WCPFC as Article 25(2) matters, based on aerial surveillance, HSBI or other remote surveillance based MCS activities (covering the period 1 January 2015 – 30 July 2019)

	Flag CCM Notified	Flag CCM Investigation Completed				Grand Total
Row Labels		Infraction - no sanction	Infraction - sanction	Infraction - warning	No infraction	
CMM 2011-02 9a					**1**	**1**
2014					1	1
CMM 2014-02 7d VMS SSPs 2.7	**1**		**1**		**3**	**5**
2017					1	1
2018			1		2	3
2019	1					1
CMM 2014-02 9a	**13**	**3**	**8**	**8**	**64**	**96**
2015		1	1	1	5	8
2016			5	1	11	17
2017	2			2	17	21
2018	4	2	2	4	24	36
2019	7				7	14
CMM 2014-02 9a VMS SSPs 2.8					**1**	**1**
2018					1	1
Grand Total	**14**	**3**	**9**	**8**	**69**	**103**

Manual Position Reporting

33. The Secretariat maintains a log of all vessels placed on manual reporting as required by the SSPs on VMS. The manual reports are also entered in the Commission VMS database as shown in Table 8 below.

Table 8. Number of vessels by flag that provided manual position report (July 2018 - June 2019)

CCM (Flag)	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
China	4	8	3	1	1	1	4	4	5	1	3	1
Cook Islands						1						
Japan	2	4	2	3	10		1	4	1	1	1	2
Korea				1							2	
Panama	1	2	2	1	1	3				1		
Philippines	1			2	2		7	6	8	3	3	
Chinese Taipei												1
United States		1	1			1	1	1			1	1
Total	**8**	**15**	**8**	**8**	**14**	**6**	**13**	**15**	**14**	**6**	**10**	**5**

Provision of High Seas VMS Data in support of MCS Activities

34. 2009 WCPFC Rules and Procedures for the Protection, Access to and Dissemination of High Seas Non-Public Domain Data and Information allows for CCMs conducting MCS activities, including in areas under national jurisdiction to request and receive, Commission VMS data, from high seas areas.

35. Seventeen (17) CCMs have requested access to 100nm high seas buffer, some on an ongoing basis, and others for the purposes of specific MCS activities. Access to the EHSPSMA Commission VMS data has been provided to the adjacent CCMs: Cook Islands, French Polynesia and Kiribati. Some FFA members have nominated the FFA Regional Fisheries Surveillance Centre in Honiara, Solomon Islands, as one of their MCS entities to receive Commission VMS data on their behalf. A list of the approved access to Commission VMS data is provided in **WCPFC-TCC15-2019-RP08** Report on the Administration of the Data Rules.

Update on tasking from WCPFC14

36. In December 2017, the Commission tasked the Secretariat to provide additional functionality to "Commission VMS Reporting status tool" to provide improved information to flag CCMs on VMS reporting status that is to provide additional functionality in its "Commission VMS reporting status tool" in a web-based, exportable matrix. The new tool should separately, in addition to the data listed in the current tool, provide authorized flag CCM MCS entities each of their vessel's daily VMS-reporting status (how many position reports are transmitted by each vessel on each date), and determine and display a generic vessel status ("in port" or "at sea", for example) (TCC13 Summary Report paragraph 142).

37. During 2018 and continuing through 2019, as a preliminary response to the WCPFC14 task to the Secretariat, MS Excel files have been manually generated by the Secretariat that provides each flag CCM with a WCPFC VMS reporting status supporting file. This approach was part of draft CMR supporting documentation the Secretariat provided to TCC14 (in 2018) and for TCC15 related to VMS reporting status reviews. The reports have continued to be generated manually by the VMS Manager and his staff, and have been updated periodically as monthly reports that are provided through each CCMs portal on the WCPFC website.

38. At the time of preparing this paper, the Secretariat had continuing work with our IT contractors to develop an IT tool that is intended to better support the generation of reports for CCMs in response to the WCPFC14 tasking. This work is still in progress.

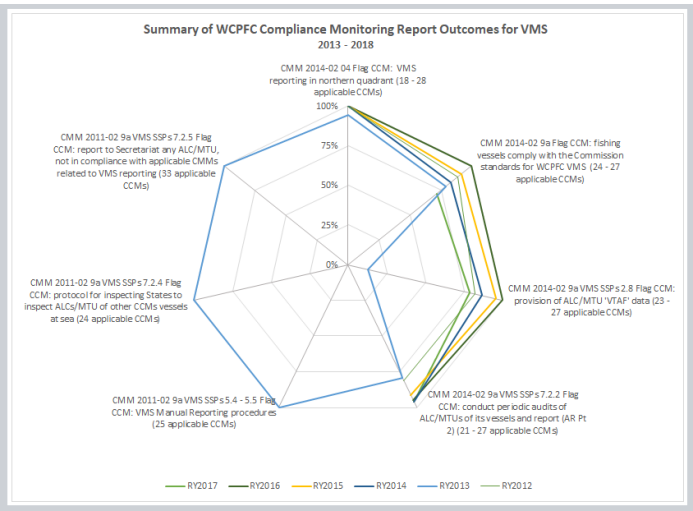
Security and Integrity of the Commission VMS

39. VMS SSP 6.10 requires the integrity of the Secretariat's VMS data will be verified annually by qualified personnel exterior to the Commission Secretariat staff. Deloitte Touche Tohmatsu Limited has been contracted to carry the audit this year. Due staffing issues at the Secretariat this year's audit has been postponed to the latter part of the year.

Review of VMS implementation by applicable CCMs under the Compliance Monitoring Scheme (CMS) 2013 - 2018

40. Figure 4 below provides an overview of the outcome of the evaluation of VMS-related provisions under the CMS over recent years. The Commission has reviewed the VMS related provisions annually since 2013 for the Reporting Year 2013 (RY2012) to 2018 (RY2017), but has focused on a smaller list of obligations in recent years. Figure 4 shows general and incremental improvements in the reported outcomes in CMS for applicable CCMs of Commission VMS implementation under CMM 2014-02 or its earlier iteration.

Figure 4



Administrative notes

- In 2018, the Secretariat advised that a solution VMS reporting status solution presently live and available to all authorized CCMs users at this link: https://www.wcpfc.int/ccm/wcpfc-vms-report

- During 2018 and continuing through 2019, as a preliminary response to the WCPFC14 task to the Secretariat, MS Excel files have been manually generated by the Secretariat that provides each flag CCM with a WCPFC VMS reporting status supporting file. These are provided through each CCMs portal on the WCPFC website.

- General information on the WCPFC VMS, including copies of VTAF forms, are publicly available at this link: https://www.wcpfc.int/vessel-monitoring-system This includes an updated guideline on WCPFC VMS requirements as at the first quarter of 2018 (as requested by TCC13 Summary Report paragraph 143)

- To assist the Secretariat with keeping track of VMS-related correspondence, please send VMs-related emails with cc to VMSHelpdesk@wcpfc.int

Recommendations

41. TCC15 is invited to note the report and discuss the activities of the Commission VMS.

Annex 1.

CCMs approved MTUs as at 12 February 2019

Also published at: https://www.wcpfc.int/vessel-monitoring-system

Model / Approved MTU Type	Manufacturer	Comm System	Service Provider
RSS405A	Anritsu	INMARSAT STDC	Speedcast
LEO	CLS ELTA	HALIOS/IRIDIUM	CLS
Thorium TST-100	CLS KENWOOD	HALIOS/IRIDIUM	CLS
CLS TRITON	CLS OROLIA	HALIOS/IRIDIUM	CLS
CLS TRITON ADV	CLS OROLIA	HALIOS/IRIDIUM	CLS
750VMS	Faria - Watchdog	FARIA_WATCHDOG	Speedcast
750VMS SB	Faria - Watchdog	FARIA_WATCHDOG	Speedcast
750VMS W/VTerm	Faria - Watchdog	FARIA_WATCHDOG	Speedcast
FELCOM10	Furuno	INMARSAT STDC	Speedcast
FELCOM12	Furuno	INMARSAT STDC	Speedcast
FELCOM15	Furuno	INMARSAT STDC	Speedcast
FELCOM16	Furuno	INMARSAT STDC	Speedcast
FELCOM18	Furuno	INMARSAT STDC	Speedcast
FELCOM19	Furuno	INMARSAT STDC	Speedcast
JUE-310B	JRC	INMARSAT-B	Speedcast
JUE-75C	JRC	INMARSAT STDC	Speedcast
JUE-75C-FFA	JRC	INMARSAT STDC	Speedcast
JUE-85	JRC	INMARSAT STDC	Speedcast
JUE-87	JRC	INMARSAT STDC	Speedcast
JUE-95C	JRC	INMARSAT STDC	Speedcast
JUE-95VM	JRC	INMARSAT STDC	Speedcast
iTrac101B (i Trac II)	MetOcean Telematics	Iridium SBD	MetOcean Telematics
ORBCOMM ST6100	ORBCOMM/Skywave	INMARSAT ISATDATA PRO	Skywave
Skywave IDP-690	ORBCOMM/Skywave	INMARSAT ISATDATA PRO	Skywave
DMR-800 D/D2	PT. SOG Indonesia	INMARSAT-D	Speedcast
RomTrax Wifi	Rom Communications	Iridium SBD	Rom Communications
H1622D	Sailor	INMARSAT STDC	Speedcast
BB3	SASCO	Iridium (mini LEO)	SASCO
BB5	SASCO	Iridium (mini LEO)	SASCO
ELB 2000	SATLINK	INMARSAT STDC	Speedcast
ELB2004	SATLINK	INMARSAT STDC	Speedcast
NERA MINI-C	SATLINK	INMARSAT STDC	Speedcast
SKYMATE I1500 VMS	SkyMate Inc.	IRIDIUM	SkyMate Inc.
Sailor 3027D	Thrane & Thrane	INMARSAT STDC	Speedcast
Sailor 6140	Thrane & Thrane	INMARSAT STDC	Speedcast
Sailor 6150	Thrane & Thrane	INMARSAT STDC	Speedcast
TT-3020C	Thrane & Thrane	INMARSAT STDC	Speedcast
TT-3022D	Thrane & Thrane	INMARSAT STDC	Speedcast
TT-3026	Thrane & Thrane	INMARSAT STDC	Speedcast
TT-3026D	Thrane & Thrane	INMARSAT STDC	Speedcast
TT-3026S	Thrane & Thrane	INMARSAT STDC	Speedcast
TT-3027M	Thrane & Thrane	INMARSAT STDC	Speedcast
TT-3027S	Thrane & Thrane	INMARSAT STDC	Speedcast
TT-3062D	Thrane & Thrane	INMARSAT STDC	Speedcast
TNL 7001	Trimble	INMARSAT STDC	Speedcast
TNL 7002	Trimble	INMARSAT STDC	Speedcast
TNL 8001	Trimble	INMARSAT STDC	Speedcast
TNL7005	Trimble	INMARSAT STDC	Speedcast