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ANNUAL REPORT ON COMMISSION VMS

WCPFC-TCC12-2016-RP01

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Paper prepared by Secretariat

Purpose

1. This paper presents for the consideration of TCC12 the annual report for the Commission vessel monitoring system prepared in accordance with CMM 2014-02 and VMS SSPs requirements paragraphs 7.3.9 and 7.3.10

Background

2. 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 (which replaced CMM 2011-02), a set of Standards, Specifications and Procedures (SSPs) which were initially approved in 2008 (WCPFC5) and that were most recently modified in 2015 (WCPFC12), and a set of Standard Operating Procedures (SOPs) which were approved in 2009 (WCPFC6).

3. In addition, some CCMs have opted to have their waters under their national jurisdiction covered by the WCPFC VMS. Solomon Islands is the latest CCM that has opted to have the waters under their national jurisdiction covered by the WCPFC VMS.

4. Paragraph 7.3.3 of the SSPs requires, in part, that the Secretariat 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 WCPFC VMS became operational in April 2009. Since then the WCPFC Secretariat has regularly met with the FFA Secretariat to monitor the delivery of SLA services in support of Commission VMS implementation. During 2015 the WCPFC and FFA Secretariats met in September/October to discuss FFA/WCPFC VMS, and met on two occasions in-December to plan the arrangements for the VMS service provider transition for 2016. In 2016, joint work on the VMS service provider transition has continued involving regular communications between WCPFC and FFA Secretariats as well as a meeting in February 2016 in Honiara. The schedule for the next SLA meeting is being considered and will likely involve consideration of the necessary updates to the SLA now that the transitional arrangements for VMS service provision are completed. Further details will be provided in WCPFC-TCC12-2016-14.

5. WCPFC9 adopted a Statement of Purpose and Principles for the WCPFC VMS. The stated purpose of the WCPFC 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,

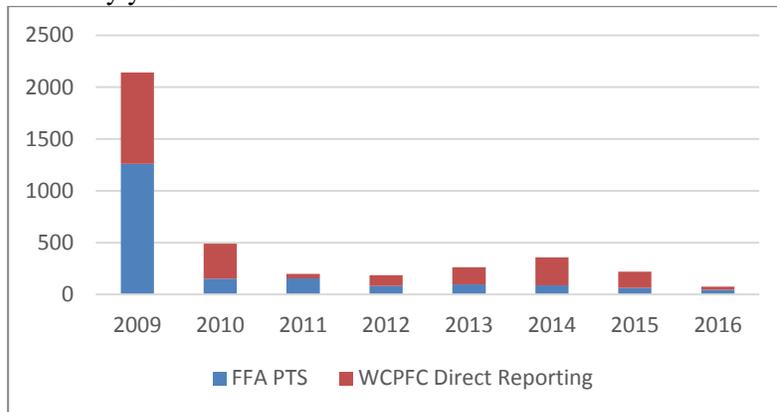
Cooperating Non-Members, and Participating Territories (CCMs) to achieve compliance with Conservation and Management Measures (CMMs), fisheries scientific analysis and sound fisheries management decision-making in the Convention Area.”

Commission VMS Database

6. Paragraph 2.8 of the SSPs requires the Secretariat to administer a Commission VMS database. Currently this database is administered and hosted in Sydney under the WCPFC-FFA SLA for the WCPFC VMS services.

7. Some general statistics on the WCPFC VMS over time are provided in the following tables and charts.

Figure 1. Vessel activations by year



(Note the figures of vessel activations in 2016 are likely to be an underestimate. The VMS transition involved migrating vessel reporting from the old service provider to the new VMS service provider, and in the course of this records of reporting were updated and corrected)

Figure 2. Number of VMS vessels against RFV list

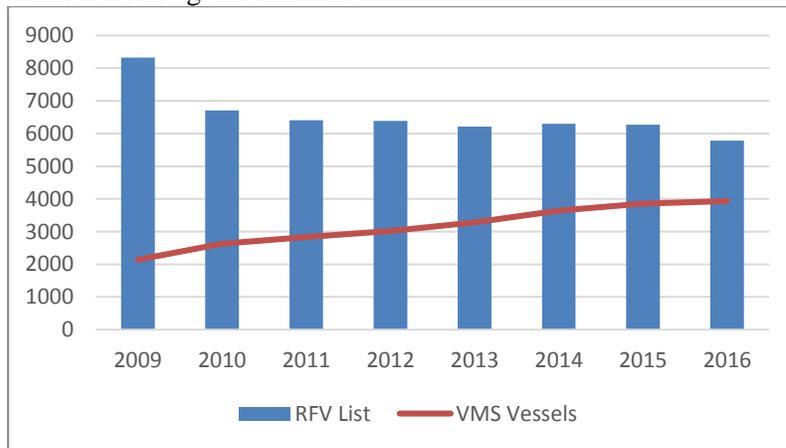
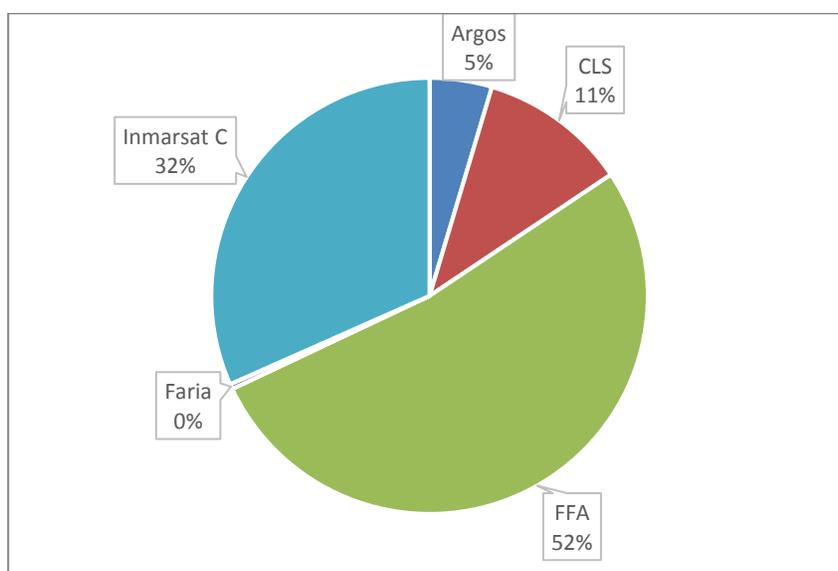


Table 1. Number of vessels that were detected on WCPFC VMS by year

Year	Vessels reporting to WCPFC VMS
2009	2,166
2010	2,529
2011	2,469
2012	2,774
2013	2,962
2014	3,586
2015	3,375
2016	3,210

Figure 3. Number of vessels reporting by channel on WCPFC VMS in July 2016



8. The details on the Vessel Tracking Agreement Form (VTAF) are needed to allow the Secretariat to electronically monitor the ALC/MTU unit and to disseminate data from it in accordance with WCPFC policy. VTAF form can be downloaded from the Commission website - <http://www.wcpfc.int/vessel-monitoringsystem>. In accordance with the Commission VMS SOPs, all vessels operating in the Convention Area that are required to report to the Commission VMS are to provide details outlined in the Vessel Tracking Agreement Form (VTAF). However, it should be noted that the Commission has clarified that vessels which can be confirmed to be in good standing on the FFA Vessel Register shall be exempted from the requirements to submit the information contained in a VTAF for the Commission's VMS. As part of the VMS transition, the Secretariat has reviewed and updated the details contained in the MTU Register to improve the alignment of VTAF records with the WCPFC VMS. A number of CCMs will have received correspondence from the Secretariat in the first half of the year, requesting that VTAF records are checked.

9. **Annex 1** provides a summary of the number of vessels by CCM for which the Secretariat has VTAFs details on file (as at 22 August 2016). Also listed in **Annex 1**, for comparative purposes, are the number of vessels by flag on the WCPFC RFV.

10. The Secretariat reports that through the arrangements that were defined for the VMS transition to the new service provider the vessel information contained the WCPFC VMS, is based on the vessel details as

showing in the WCPFC Record of Fishing Vessels (this is achieved through linking a VMS record to the corresponding RFV record through the RFV VID). This is unlike the arrangements for the previous VMS service system which required the maintenance of a vessel mapping table between the WCPFC VMS and WCPFC RFV, and arrangements whereby the VMS vessels list necessarily needed to be manually updated with vessel details including flag and name changes. The formal linkage between the WCPFC VMS data and the WCPFC RFV, will continue to support the Secretariat's ability to monitor and check the regular reporting of vessels on the WCPFC VMS, which has provided improvements in the administering of the VMS Manual Reporting procedures. All WCPFC Secretariat work involving WCPFC VMS data continues to be in accordance with the WCPFC decisions, CMMs and data access rules and procedures, and the WCPFC Information Security Policies.

11. At TCC11, CCMs will recall that the Secretariat provided a suggestion that a list could be published to the secure CCM page drawing from the Secretariat's VMS-related records, to provide a way for CCMs to check and support VMS reporting by vessels when they change between the WCPFC VMS and FFA VMS systems. This initiative was considered by the Secretariat following a number of instances where, through WCPFC members High Seas Boarding and Inspections, Port Inspections or MCS operations, vessels have been identified as possibly not meeting WCPFC VMS requirements, but further investigations found that there were some procedural issues which delayed activating the VTAF (Vessel Tracking Activation Form) details. In response, TCC11 provided a recommendation which was approved by the Commission at WCPFC12, that

“by June 30 2016 the Secretariat should publish and maintain through secure CCM WCPFC online systems, that are accessible by authorised CCM users, a list of all RFV vessels WCPFC VMS reporting status. The list will be updated at least once a week, and will be based on the details of vessels as contained in the RFV. The list will confirm those vessels which VTAF details are held by WCPFC and where applicable the date of receipt, date of last update of the list, and date of first VMS report to WCPFC (VTAF activation date), the current VMS reporting channel to the WCPFC VMS (for example WCPFC direct; through FFA; manual reporting or not reporting) (Attachment P to WCPFC12 Summary Report).”

12. The Secretariat confirms that the work to complete the online list related to VMS reporting has been delayed as a result of the draws on staff and contractor time to necessarily support the VMS transition. The Secretariat continues to see this mechanism as a priority initiative which will better support WCPFC VMS monitoring, and the work in response to this tasking is ongoing.

Operationalizing Article 24(8) of the Convention – (*Flick the Switch*)

13. Since the “*Flick the Switch*” proposal was approved at WCPFC9 the following CCMs - Australia, Federated States of Micronesia, France (including New Caledonia, French Polynesia and Wallis and Futuna), Nauru, Palau, Samoa, Solomon Islands, Tonga, Tuvalu, the United States of America have provided letters of notification for the WCPFC VMS to cover their EEZ. For the complete list see Table 2. Map showing “*Flick the Switch*” zone is appended in Annex 2.

14. A summary of the number of VMS position data received by the Commission VMS (both from vessels reporting directly to the WCPFC VMS and through the FFA VMS), is shown in Table 3.

Table 2. List of WCPFC Members whose waters are included in the Commission VMS, which is maintained by the Secretariat in accordance with the WCPFC9 decision (* = these three Members had their national waters included in the Commission VMS in accordance with previous WCPFC decisions)

CCM	Activation Date
New Zealand*	23 Feb 2010 (Tokelau was activated on 22 Aug 2012)
Cook Islands*	14 May 2010
Niue*	1 Jan 2013
United States of America	9 March 2013
Australia	15 March 2013
Federated States of Micronesia	4 April 2013
France (include NC,PF & WF)	NC – 13 June 2013 PF & WF – 19 June 2013
Palau	1 September 2013
Tuvalu	8 September 2013
Samoa	6 October 2013
Tonga	13 March 2015
Nauru	17 July 2015
Solomon Islands	8 April 2016

Table 3. Number of position reports by area monitored by WCPFC VMS¹

AREA NAME	2009	2010	2011	2012	2013	2014	2015	2016
Australia (EEZ)					20,937	42,863	107,338	42,337
Cook Islands (EEZ)		2,677	4,541	9,053	34,353	133,134	104,328	67,414
Federated States of Micronesia (EEZ)					128,892	475,392	483,164	275,277
France - NC, PF & WF (EEZs)					33,353	65,561	53,131	17,140
New Zealand & Tokelau (EEZs)		7,916	16,122	17,506	35,691	100,527	191,032	60,904
Nauru (EEZ)							35,104	29,270
Niue (EEZ)					4,343	8,833	6,779	5,192
Republic of Palau (EEZ)					90,339	300,647	356,682	125,139
Samoa (EEZ)					7,106	29,109	41,966	26,291
Solomon Islands (EEZ)								107,357
Tonga (EEZ)							22,708	7,846
Tuvalu (EEZ)					33,647	129,668	185,817	76,109
United States of America					408,487	551,003	785,230	438,377
High Seas in WCPFC Convention Area	1,172,244	1,502,480	1,537,517	1,918,364	2,067,862	2,338,732	2,872,036	1,560,600
TOTAL	1,172,244	1,513,073	1,558,180	1,944,923	2,865,010	4,175,469	5,245,315	2,839,253
Quarantined data	550,889	1,371,489	1,619,882	1,963,844	2,233,073	2,678,428	2,859,062	1,371,039
	32%	48%	51%	50%	44%	39%	35%	33%

Provision of High Seas Data for MCS Activities

15. 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, WCPFC VMS data, from high seas areas adjacent to up to 100 nautical miles adjacent to, and outside their Exclusive Economic Zones (paragraph 22 and 23). 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: Australia, Cook Islands, Federated States of Micronesia, French Polynesia, Japan, Kiribati, Republic of Marshall Islands, Nauru, New Zealand, Niue, Palau, Philippines, Solomon Islands, Tokelau, Tonga, Tuvalu and United States of America. In accordance with CMM 2010-02,

¹ Note as was advised in TCC10-2014-RP01_rev1 while the WCPFC direct reporting vessels positions were viewable from the “activation date, there were there were some technical constraints and the FFA position transfer for EEZ areas covered by the WCPFC VMS did not commence until 5th September 2013. The WCPFC Secretariat and FFA Secretariat have ongoing work to find the best mechanism to include the back-log of FFA position transfer data for “flick-the-switch” into the WCPFC VMS databases.

access to the EHSPSMA WCPFC 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 entity to receive WCPFC VMS data on their behalf.

16. In accordance with the WCPFC9 decision to “*flick the switch*” the WCPFC has provided CCMs with the option of receiving a regular feed of WCPFC VMS data, as an additional service to the WCPFC VMS client login. All WCPFC VMS data requests have been implemented using both automatic push and login activation.

17. In accordance with 2009 Data Access Rules and Procedures, a number of members also have requested and received high seas WCPFC VMS data for high seas MCS activities where the member has a MCS presence or capability on the high seas (paragraph 21).

Log of Manual Reports

18. WCPFC11 Regular Session accepted the recommendation from TCC10 and extended the VMS manual position reporting requirements (the WCPFC9 agreed amendments to the VMS SSPs Section 5) until 1 March 2017.

19. 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. It should be noted that some vessels have delayed in reporting manually until urged by their flag State. Manual reports received by the Secretariat include Philippines support vessels (light boats) which do not have MTUs installed.

20. The Secretariat does acknowledge there remain some challenges to the implementation of the VMS SSPs for manual reporting provisions. One of these challenges is that the first step, which occurs before a vessel may be asked to manually report its position to WCPFC: the Secretariat must be able to ascertain that there has been non-reception of two consecutive, programmed high seas VMS positions.²

Table 4. Number of vessels by flag that provided manual reports

Flag	2013	2014	2015	2016
China	34	24	21	22
Cook Islands	3	1	3	1
Ecuador	1		2	
Federated States of Micronesia	2	6	6	1
Fiji	7			
Japan	4	11	35	3
Kiribati	5		1	
Korea (Republic of)	7	2	3	8
Liberia			1	
Marshall Islands			2	
New Zealand			4	
Panama	2	3		
Philippines	32	75	86	59
Spain	8	4	1	
Chinese Taipei	15	2	10	
United States of America	9	2	7	
Vanuatu	3	1	14	
Vietnam	1			
Total	133	131	196	94

² The necessary work to meet the requirements of VMS_SSPs 5.6 “The Secretariat shall maintain and make available to all CCMs a current list of those vessels subject to manual reporting and the duration of that reporting” will be completed as part of the WCPFC12 tasking (as outlined in paragraph 11 above)

List of Non-Compliant ALCs

21. In response to the requirement in paragraph 7.3.10 of the WCPFC VMS SSPs, the WCPFC Secretariat confirms as an update since TCC11 that all but one of the vessels that had DMR, BB5 and ROMTRAX MTUs were removed from the RFV in July 2016 as a result of the WCPFC12 decision (related to the flag CCM not having supplied the minimum required fields for inclusion in the RFV).

22. WCPFC12 approved an amendment to Section 2.7 of the VMS SSPs which came into effect in February 2016. The Secretariat is tasked with recommending by 31 July 2016, removal from the list of approved ALC types any makes and models it has determined do not meet the minimum standards set out in Annex 1 of CMM 2014-02 or do not have the ability to successfully report to the Commission VMS. The list of CCM approved MTU/ALC is provided by CCMs are listed in Annex 3. In response to the VMS SSPs requirement the Secretariat recommends the following MTUs are removed from the list of approved ALC types:

- * ARGOS – FVT
- * ARGOS – MAR-GE
- * ARGOS – MAR-GEV2
- * PT.SOG Indonesia – DMR-800 D/D2

23. The justification for the removal of the DMR unit from the list of approved ALCs is that the Secretariat has no progress to report on developments of new gateways for DMR, and as a result this unit is presently not able to report to the Commission VMS.

24. The justification for the removal of the three Argos units (FVT, MAR-GE and MAR-GEV2) from the list of approved ALCs is that these units are providing position reports that are greater than 90 minutes after being sent from the MTU, and so do not meet Annex 1 CMM 2014-02 requirements. CMM 2014-02 Annex 1 paragraph 4 requires VMS data reports be received by the Commission within 90 minutes of being generated by the ALC / MTU under normal conditions. Figure 3 shows reports received Overdue (greater the 90 minutes), Delayed (between 30 and 90 minutes) Late (between 30 and 15 minutes) Good are position reports received less than 15 minutes of being sent from the MTU and Figure 4 below shows by percentage position received more than 90 minutes after being sent from the MTU. These three Argos ALC units are providing position reports that are highly overdue due to the nature of how the data is being delivered to the land earth stations.

25. Also by way of explanation, Figure 3 also shows how VMS reporting to WCPFC VMS was affected during the VMS Transition arrangements. FFA VMS terminated the services of Pole Star VMS on 31st March 2016 and Pole Star services to WCPFC VMS terminated on 30 June 2016. Consequently, and as is shown in Figure 3 and Figure 4 during this transition period, there was a higher than usual delay of data transfer from FFA VMS (TrackWell) to WCPFC VMS (Pole Star) during the period of April to June. The Secretariat confirms that since 30 June, and once the WCPFC VMS transition was completed, the VMS data transfer has been maintained within normal range.

Figure 3. Percentage of Overdue, Delayed, Late and Good position reports by months from January 2015 to August 2016 for "Normal" positions only.

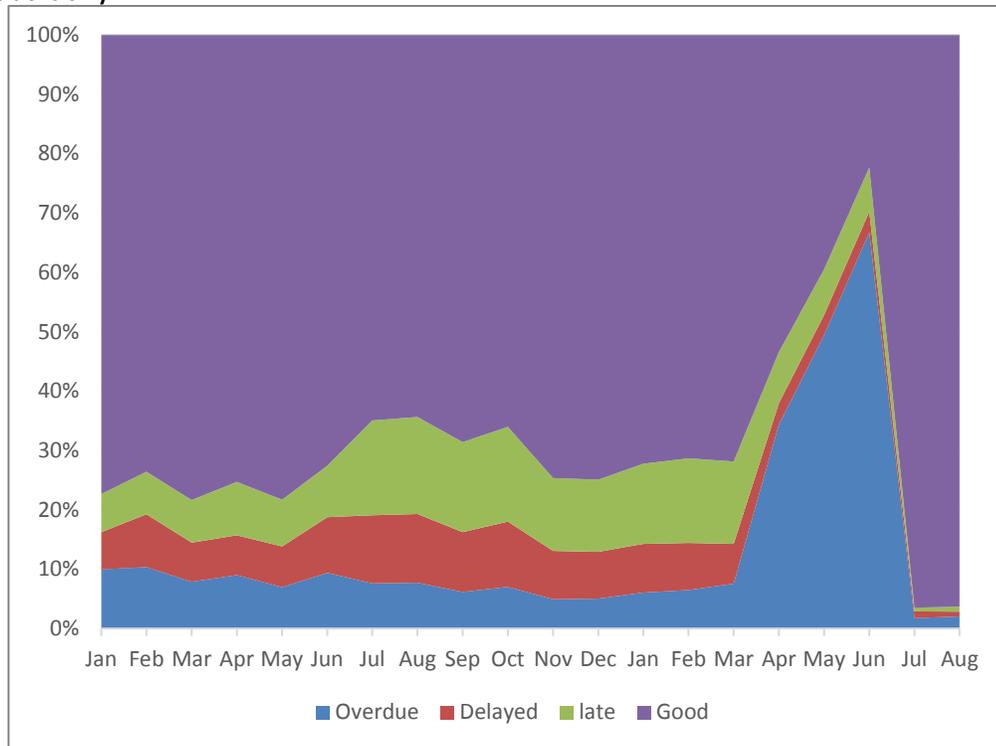
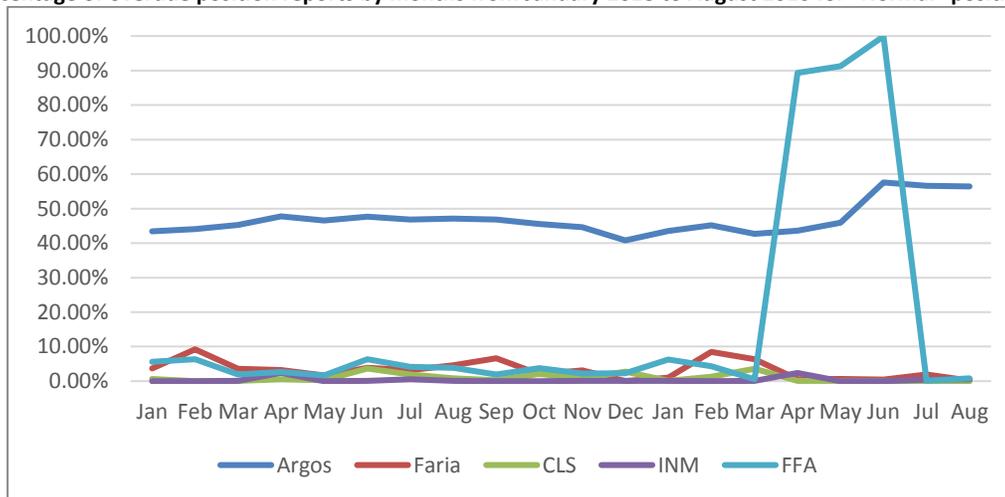


Figure 4. Percentage of overdue position reports by months from January 2015 to August 2016 for "Normal" positions only.



ALCs Comply with WCPFC Standards

26. 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.

Table 5. Number of MTU audits by type from 2013 to date.

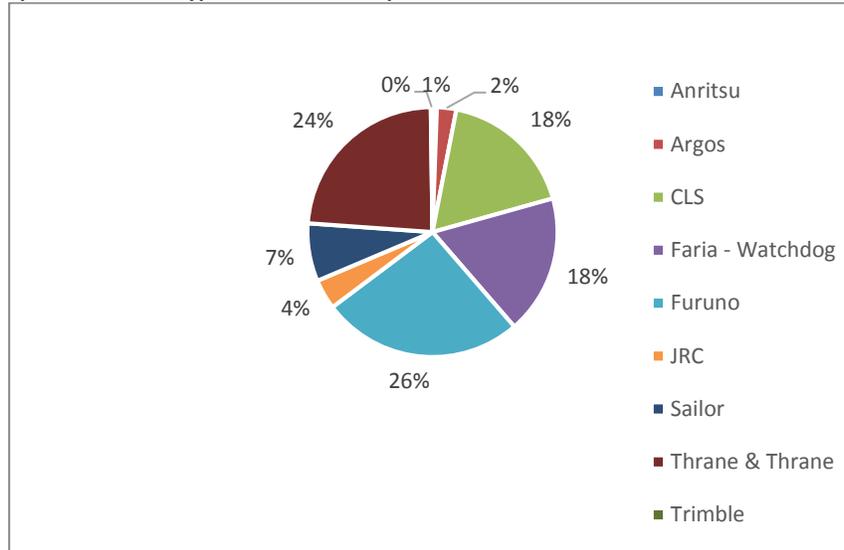
MTU Manufacturer	2013	2014	2015	2016
Anritsu	8	5	2	
Argos		38	30	
CLS	119	110	240	7
Faria - Watchdog	214	182	88	3
Furuno	142	277	251	36
JRC	15	37	38	15
Sailor	32	81	81	9
Thrane & Thrane	196	183	254	7
Trimble	3	1	2	
Total	729	914	986	77

Table 6. Number of MTU audits by flag state from 2013 to date.

Flag	2013	2014	2015	2016
Australia	9		52	
Canada	1	2	1	
Cook Islands	12	9	9	
China	187	216	345	12
Ecuador	7			
Spain	5	5	3	
Fiji	53	67	52	2
Federated States of Micronesia	28	26	21	
Japan	19	106	99	52
Kiribati	3	21	13	
Korea (Republic of)	87	115	50	7
Liberia	5			
Marshall Islands	14	11	12	
Malta	1			
New Caledonia		18		
Netherlands		1	1	
New Zealand	1	4	3	
Panama	4	18	3	4
Papua New Guinea	15	12	17	
Philippines	96	118	140	
Solomon Islands	1		6	
El Salvador	4	4	2	
Chinese Taipei	13	5	6	
United States of America	121	154	151	
Vanuatu	43	2		
Total	729	914	986	77

27. The results of the audits are compiled by the Secretariat into a VMS Audit Report Document. The list of countries and the number of MTU inspections by vessel type is appended in Annex 4. The list of CCM approved MTU/ALC is provided by CCMs are listed in Annex 3.

Figure 4 shows the proportion of MTU types which were inspected since 2013.



VMS is Stable, Reliable and Fully Maintained

28. SSP 7.3.2 requires the WCPFC Secretariat to provide a stable, reliable, fully maintained and supported Commission VMS that conforms to the security standards set out in the Commission’s ISP. The Commission VMS is a web based application provided by TrackWell and housed at the Amazon data center and managed by FFA Secretariat and its VMS Service provider TrackWell through the SLA between FFA and WCPFC. The redundant system for backup/data security purposes is located at the Secretariat in Kolonia, Pohnpei. All planned work by the WCPFC Secretariat through the WCPFC IMS system using WCPFC VMS data, will be done in accordance with the applicable rules for access and protection of WCPFC VMS data by the WCPFC Secretariat and the Commissions ISP.

Recommendation

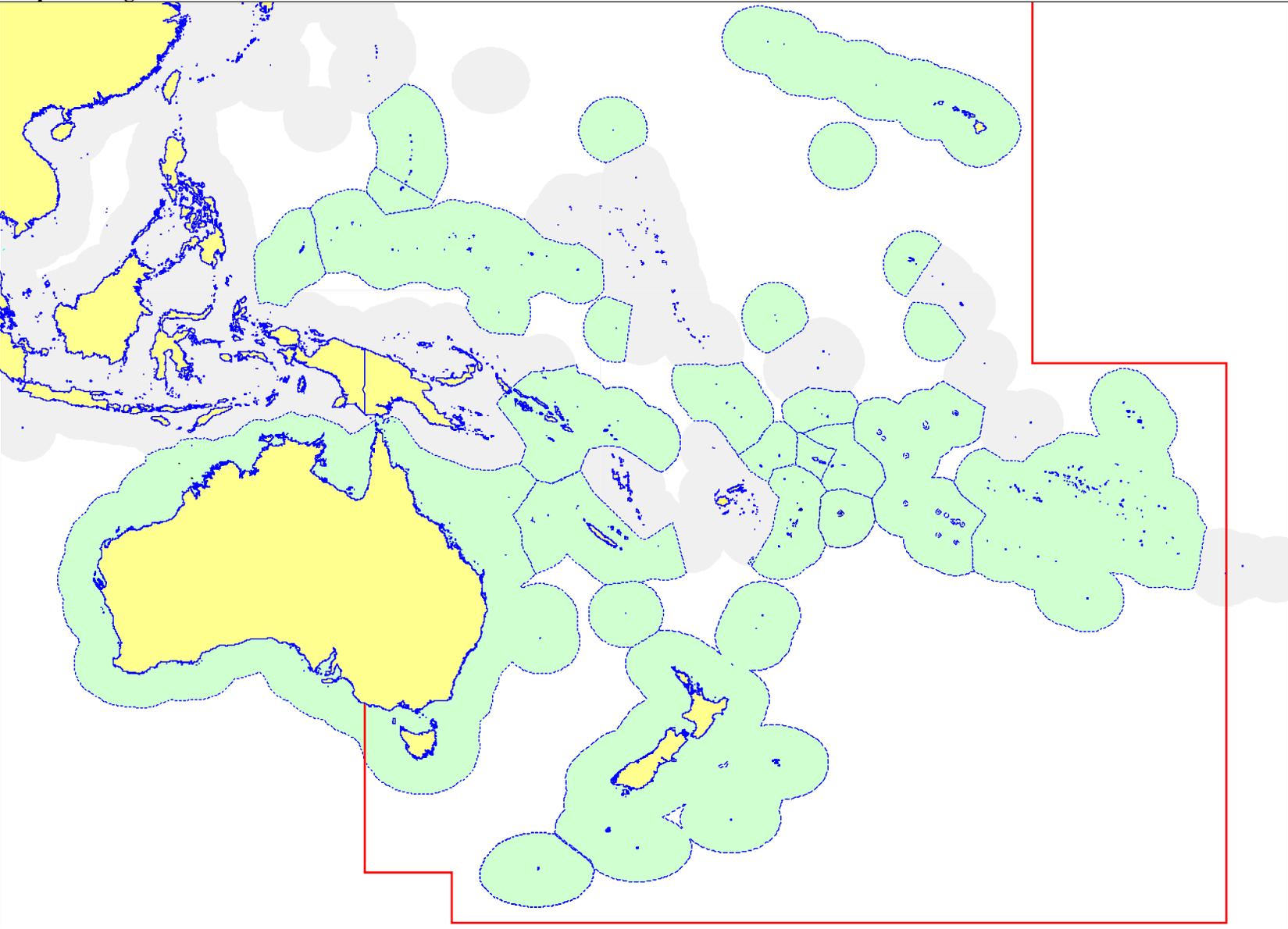
29. TCC12 is invited to:

- a. note the report and discuss the activities of the Commission VMS in 2015/16;
- b. note the Secretariat advice and recommendation provided in accordance with VMS SSPs 2.7 requirement, that three Argos units (ARGOS – FVT ; ARGOS – MAR-GE and ARGOS – MAR-GEV2) do not meet agreed VMS requirement in CMM 2104-02 Annex 1 (paragraph 4) of CMM 2014-02, and the DMR unit is presently not able to report to the Commission VMS, and these MTUs should be removed from the list of CCMs approved MTUs; and
- c. consider recommending to the Commission that the following four (4) MTUs/ALCs should be determined to be non-type approved ALCs and these units should be removed from the list of CCM approved MTUs within 3 years:
 - * ARGOS – FVT
 - * ARGOS – MAR-GE
 - * ARGOS – MAR-GEV2
 - * PT.SOG Indonesia – DMR-800 D/D2.

Number of vessels on RFV and reporting to WCPFC VMS

Flag	RFV	VTAFs Received	Reported on VMS 2016
Australia	59	51	38
Canada	11	2	3
Cook Islands	15	15	15
China	613	503	472
Ecuador	7	5	7
EU - Lithuania	4		1
EU - Netherlands	4	1	2
EU -Spain	47	16	12
EU-Portugal	9	1	1
Fiji	75	14	41
Federated States of Micronesia	38	24	36
France	14		
Indonesia	9	1	3
Japan	830	550	502
Kiribati	35	23	33
Korea (Republic of)	207	173	163
Russian Federation (chartered to Korea – refer CMM 2013-10 para 42 – 44)	1		1
Liberia	29	8	9
Marshall Islands	16	6	15
New Caledonia	17	6	4
New Zealand	3	3	3
Panama	106	40	92
French Polynesia	76		
Papua New Guinea	49	14	39
Philippines	310	153	148
Solomon Islands	9		15
El Salvador	4	3	3
Thailand	5	2	2
Tonga	1		
Tuvalu	5	4	5
Chinese Taipei	1658	736	558
United States of America	214	173	176
Vanuatu	109	92	108
Total	4589	2619	2507

Map showing “Flick the Switch” zones



Annex 3.

CCMs approved MTUs [## - are units that pursuant to VMS SSPs2.7 the Secretariat recommends are removed from the ALC approved list]

MTU Manufacturer	MTU Type	CN	JP																					
Anritsu	RSS405A	1	3																					
Anritsu	TNL8001		1																					
MTU Manufacturer	MTU Type	CA	CN	JP	KR	LR	PA	PH	TW	US	VU													
##ARGOS	FVT		1		1				25	1	1													
##ARGOS	MAR-GE			49	5		2	2	3		2													
##ARGOS	MAR-GEV2		3	77	1	5		7	75		6													
CLS ARGOS	LEO	1			4		1	55	39	1	13													
CLS ARGOS	Thorium TST 100	1	3		34			13	28	58	30													
MTU Manufacturer	MTU Type	CA	CN	CK	FM	FJ	PH	PG	TW	US	VU													
Faria	750 VMS	1	1	1		2	8	1			9													
Faria	750 VMS SB		7		1	1	12	3	2	3	2													
Faria	750 VMS W/Vterm							1		3														
MTU Manufacturer	MTU Type	CA	AU	CN	CK	EC	ES	FJ	FM	JP	KI	KR	NC	NZ	PA	PH	PG	PT	TV	TW	VU			
Furuno	FELCOM12			6					1	51			1		1		1	1						
Furuno	FELCOM15			6			3			14		1								3	1			
Furuno	FELCOM16	1	2	97	6	2		8	2	295	6	88		1	5	1	1		1		2			
Furuno	FELCOM18						1			3														
Furuno	FELCOM19									2			2											
MTU Manufacturer	MTU Type	CA	CK	FJ	FM	JP	LR	NL	PA	PG	TW	VU												
Japan Radio Company (JRC)	JUE-75C				1	22																		
Japan Radio Company (JRC)	JUE-75C-FFA					27				1														
Japan Radio Company (JRC)	JUE-85					15			1			1												
Japan Radio Company (JRC)	JUE-95C					1																		
Japan Radio Company (JRC)	JUE-95VM	1	1	1	3	66	2	1	6		1	4												
MTU Manufacturer	MTU Type	ID																						
##PT. SOG Indonesia	DMR-800 D/D2	1																						
MTU Manufacturer	MTU Type	ES																						
SATLINK	ELB 2000	6																						
SATLINK	ELB2004	2																						
MTU Manufacturer	MTU Type	AU	CN	CK	EC	ES	FJ	FM	JP	KI	KR	LB	MH	NC	NZ	PA	PH	PG	SV	TH	TV	TW	US	VU
Thrane & Thrane	Sailor-6140		53							1	1					1		1	1			26		
Thrane & Thrane	Sailor-6150		14	1							1			1			1					4		
Thrane & Thrane	TT-3020C																					39		
Thrane & Thrane	TT-3022D	31	67		1		1	11		4	9		2	7	1	10	4	3				216		13
Thrane & Thrane	TT-3026				1													1				111		6
Thrane & Thrane	TT-3026D	9	18	1				3		2	2	1				3						2		2
Thrane & Thrane	TT-3026S		56	1	1	4	1	3	1	6	2		3			8		1	2	2	3	150		9
Thrane & Thrane	TT3027D	1	8																					1
Thrane & Thrane	TT-3027M		8																					
Thrane & Thrane	TT-3062D	5	3						1														1	
Thrane & Thrane	TT-6194		26													1						32		

List of flag states, vessel type and number of MTU inspections

Flag	Vessel Type	Active on RFV	2013	2014	2015	2016
Australia	Handliner	8			1	
Australia	Longliner	40	9		51	
Canada	Stern trawler			1		
Canada	GILLNETTER			1		
Canada	Liner nei	1			1	
Canada	Multipurpose vessel nei	5	1			
Cook Islands	Longliner	2	1	2	1	
Cook Islands	Tuna longliner	9	11	7	6	
Cook Islands	BUNKER	4			2	
China	Purse seiner	70	2	7	4	2
China	Tuna purse seiner	9	5	8	6	
China	Longliner	308	88	136	209	7
China	Tuna longliner	201	91	65	126	3
China	FISH CARRIER	11	1			
Ecuador	Tuna purse seiner	7	7			
EU - Malta	FISH CARRIER		1			
EU - Netherlands	FISH CARRIER	4		1	1	
EU - Spain	Tuna purse seiner	23	4	4	2	
EU - Spain	FISH CARRIER	1	1	1	1	
Fiji	Longliner	27	20	25	18	1
Fiji	Tuna longliner	48	33	42	34	1
Federated States of Micronesia	Purse seiner	15	8	8	7	
Federated States of Micronesia	Tuna purse seiner	3	4		2	
Federated States of Micronesia	Longliner	5	2	3	2	
Federated States of Micronesia	Tuna longliner	13	12	14	9	
Federated States of Micronesia	FISH CARRIER	1	1			
Federated States of Micronesia	BUNKER	1	1	1	1	
Japan	Tuna purse seiner	38	6	22	13	19
Japan	Tuna longliner	485	10	69	68	20
Japan	Pole and line	83	2	14	18	11
Japan	MULTIPURPOSE VESSEL	1		1		1
Japan	HARPOON	1	1			1
Kiribati	Purse seiner	1	1	1		
Kiribati	Tuna purse seiner	12	2	9	6	
Kiribati	Pole and line	1		1		
Kiribati	FISH CARRIER	9		7	1	
Kiribati	BUNKER	12		3	6	
Korea (Republic of)	Tuna purse seiner	27	15	37	17	
Korea (Republic of)	Longliner	1	1			
Korea (Republic of)	Tuna longliner	117	58	65	6	7
Korea (Republic of)	FISH CARRIER	30	11	6	23	
Korea (Republic of)	BUNKER	9	2	7	4	
Liberia	FISH CARRIER	27	5			
Marshall Islands	Purse seiner	3	5	3	3	
Marshall Islands	Tuna purse seiner	5	5	4	5	
Marshall Islands	FISH CARRIER	1	2	1	1	
Marshall Islands	BUNKER	7	2	3	3	
New Caledonia	Tuna longliner	17		18		
New Zealand	Tuna purse seiner	1		2	1	
New Zealand	Longliner	1		1	1	
New Zealand	Tuna longliner			1	1	
New Zealand	MULTIPURPOSE VESSEL		1			
Panama	FISH CARRIER	100	4	18	3	4
Papua New Guinea	Purse seiner	13	4	1	3	
Papua New Guinea	Tuna purse seiner	22	9	11	14	
Papua New Guinea	Tuna longliner	7	2			
Philippines	Purse seiner	27	13	24	22	

Philippines	Tuna purse seiner	49	25	8	6	
Philippines	FISH CARRIER	101	55	58	73	
Philippines	Support Vessel	136	3	28	39	
Solomon Islands	Purse seiner	4			3	
Solomon Islands	Tuna purse seiner	4			2	
Solomon Islands	Longliner	1	1		1	
El Salvador	Tuna purse seiner	4	4	4	2	
Chinese Taipei	Tuna purse seiner	34	7	3		
Chinese Taipei	Tuna longliner	1,499	6	2	4	
Chinese Taipei	FISH CARRIER	22			2	
United States of America	Tuna purse seiner	42		2		
United States of America	Longliner	7	4	8	6	
United States of America	Tuna longliner	1,148	112	136	139	
United States of America	Pole and line	3	2	2	1	
United States of America	Troller	12	1	5	2	
United States of America	Freezer Longliner	2	2	1	3	
Vanuatu	Tuna purse seiner	3	2			
Vanuatu	Longliner	41	29			
Vanuatu	Tuna longliner	49	2	1		
Vanuatu	Pole and line		1			
Vanuatu	FISH CARRIER	15	9			
Vanuatu	BUNKER	1		1		
		5,051	729	914	986	77