



## **TECHNICAL AND COMPLIANCE COMMITTEE**

### **Seventh Regular Session**

28 September - 4 October 2011

Pohnpei, Federated States of Micronesia

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## **3rd ANNUAL REPORT WITH CONSIDERATIONS FOR THE REGIONAL OBSERVER PROGRAMME**

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**WCPFC-TCC7-2011/14 Rev 2**  
**26 September 2011**

### **ISSUES:**

1. Key issues discussed in this report include:
  - a. Standards
    - Definitions (discussed in detail in WCPFC-TCC7-2011-2011/22 Rev 1)
  - b. ROP Audits update
  - c. Observer trip data backlog
  - d. Data monitoring challenges
  - e. Observer coverage for purse seiners and long liners
  - f. Transshipment and observer coverage
  - g. Observers for carriers
  - h. Transit without Observers procedures
  - i. Observers for the overlap area with IATTC
  - j. Observer cross endorsement procedures
  - k. Observer numbers and special situations
  - l. Electronic data collection
  - m. Catch retention on the high seas

### **DECISIONS AND ENDORSEMENTS:**

2. TCC7 is invited to review the report, which is an annual requirement for the Commission meeting, with special attention to the considerations to enhance the ROP.

### **DISCUSSION:**

#### **Introduction**

3. Paragraph of Article 28 of the WCPFC Convention states: “The observer programme shall be coordinated by the Secretariat of the Commission, and shall be organized in a flexible manner which takes into account the nature of the fishery and other relevant factors.”

4. Paragraph 3 of CMM 2007-01 states: “The Secretariat of the Commission shall provide an annual report to the Commission with regard to the Commission ROP and on other matters relevant to the efficient operation of the programme.”

5. This paper reports on the different aspects of the ROP as required by the Convention, CMM 2007-01 and the outcomes of the TCC6 and WCPFC7

### **Standards**

6. Three Intersessional Working Groups (IWGs) for the ROP have determined standards and definitions to be used in the development of the ROP. These standards were discussed at SC and TCC before being approved by the WCPFC; however a few definitions were sidelined for the Commission to discuss as it was thought that the whole body of the Commission meeting should make the decisions on these items, however when raised at these meetings no consensus could be reached, therefore we have important definitions which are required to ensure good management that remain unresolved since 2007.

7. The words requiring definitions are “Principally, Occasional, Adjacent, Independent and Impartial”. The ROP also requires guidance on the length of a trip that observers should remain on board a vessel that carries out operations over a long period of time. These are discussed in more detail with suggested definitions in Paper WCPFC TCC7 2011/22 Rev 1.

### **ROP Audits of ROP programmes for full authorisation**

8. The ROP Secretariat commenced its audits of Regional Observer Programme (ROP) interim authorised in 2009 and 2010 and to date has completed audits on 14 of the 23 countries or organisations that are part of the ROP. The remaining audits will be completed late in 2011 and in early 2012. The purpose of the audits is to ensure that Commission standards are being applied and/or are being developed and maintained by programmes that wish to gain ROP full authorisation before the due date of June 2012.

9. In most cases the programmes audited were well developed and were following the agreed Commission standards to the best of their ability. However there were some areas that needed improvement.

10. A standard that most programmes (not all) were having problems with was observer debriefing. Debriefing development remains a priority of the WCPFC ROP programmes and with the exception of two programmes in the Pacific Islands, others contained only a small number of trained and qualified debriefers. All programmes audited had some debriefing in place but most were overwhelmed with the number of observers with which they had to deal. All countries audited were fully aware of the needs to have sufficient debriefers available, and for a few programmes it was recognized that it will take some time to get these programmes up to an appropriate level of debriefing. There is continual training of debriefers to build up capacity, and ensure quality. Training assistance and funding from FFA/SPC/WCPFC is helping to ensure that programmes will have the required numbers for comprehensive and accurate debriefing of all observer trips, by all programmes in the ROP. The audit summary is discussed in more detail in ‘**Attachment 1**’ to this report.

### **Observer Data**

11. The data service provider SPC presented a paper “Status of Observer Data Management - WCPFC SC 2011/ST IP-06 at SC7; the paper noted that that there is still quite an amount of ROP observer data to be sent to SPC for data entry. There is a need for providers to ensure that all data for ROP trips is made available for data entry as soon as soon as possible after the observer trip ends. To indicate the estimated amount of data collected by observers on purse seine vessels; Tables 1 has been reproduced from the above paper, noting that the figures are for 2010. Remembering that long line data plus other gear type observer data is not included in these figures; when 5% coverage of long liners is attained there will be an additional 800 trips to be entered. The problem experienced by some programmes in sending data to the data provider is being addressed and should not be a problem in the future. The paper SC 2011/ST IP-06 is attached to give members an indication of the enormity of ROP data that is being dealt with by the data providers. (**Attachment 2**)

**Table 1. Provisional purse-seine observer trips undertaken in 2010, by major observer programme**

Observer Programme	(Estimated) Trips undertaken	Trip data received at SPC	%	Trip data not yet received	%
FSM	350	123	35%	227	65%
Kiribati	200	87	44%	113	57%
RMI	82	56	68%	26	32%
Nauru	5	5	100%	0	0%
PNG	400	302	76%	98	24%
Solomon's	214	187	87%	27	13%
US MLT	279	239	86%	40	14%
FSM Arr.	221	171	77%	50	23%
<b>Total</b>	<b>1751</b>	<b>1170</b>	<b>67%</b>	<b>581</b>	<b>33%</b>

**Notes**

1. As at 12<sup>th</sup> September 2011
2. Values in red are approximate number of trips determined from anecdotal information.
3. Provisional values in blue are from Tim Park (pers. comm.)
4. Some of the FSM Arrangement trips may be counted in the national programme trips and the FSM Arrangement trips may not account for those FSM Arrangement vessels covered under the Reciprocal Arrangement (RA) between RMI and FSM, for example.

**Data and monitoring requirements of the Commission's CMMS;**

12. The ROP data collected by ROP observers resulted in a number of detailed SC reports this year. There is still a backlog of data available as noted above. This is due mainly due to the lack of finance for data transmission, and also due to some technological problems in a few countries that experienced limitations in transmitting data to SPC in an electronic format. However this back log is diminishing as the ROP data entry has been sufficiently funded in 2011, and therefore the backlog is catching up. Technology problems have improved in some areas with the assistance from SPC and WCPFC in supplying where needed, hi speed scanners to Pacific Island national observer programmes.

13. Last year it was reported at TCC6 that only 4 FFA countries had agreed to supply data to the Commission because of previous agreements made with SPC on release of data. All FFA countries and the sub regional programmes have sent letters to the Commission Secretariat or to SPC agreeing to allow the release of ROP data collected by their observers to the Commission. Therefore all programmes are now committed to sending ROP collected data to the Commission Secretariat or to the Commission data provider.

**Observer Coverage for 2010****Purse Seine Coverage**

14. The 100% observer coverage for Purse seiners for period Jan 1<sup>st</sup> 2010 to June 30<sup>th</sup> 2011 includes the FAD closure period in 2010. This coverage was monitored by the Secretariat with information supplied by observer providers and flag States for purse seine vessels when fishing in the Convention Area 20N – 20S. Table 2 shows the coverage from July 1<sup>st</sup> 2010 with the period from Jan 1<sup>st</sup> to June 30<sup>th</sup> 2010 being similar in coverage although there was slight disarray in the first couple of weeks of the 100% coverage as providers and the flag States reporting techniques were being established; since then the coverage has been well reported. A few discrepancies in information supplied by providers and flag States were crossed checked and in most instances the vessels were either not in the 20N – 20S portion of the Convention Area, or were fishing entirely in their own EEZ, (under the Convention these are not ROP trips, although most had observers on board, Solomon's, PNG, Philippines, etc).

15. Table 2 is an indication that purse seine vessels carried an ROP observer for the whole or part of the month indicated.

**Table 2 Purse Seine Coverage July 2010 – Jun 2011**

Vessel Flag State	Total Vessels	Jul 2010	Aug 2010	Sep 2010	Oct 2010	Nov 2010	Dec 2010	Jan 2010	Feb 2010	Mar 2011	Apr 2011	May 2011	Jun 2011
China	12	9	9	10	11	12	12	12	12	12	12	12	11
Chinese Taipei	34	27	26	29	31	30	33	33	34	33	33	34	34
Ecuador	9	6	6	6	8	8	9	9	8	8	8	8	8
El Salvador	2	2	2	2	2	2	2	2	2	2	2	2	2
FSM	7	7	7	7	6	6	6	6	5	5	7	7	7
Japan	36	30	32	28	36	34	35	35	34	30	31	35	34
Kiribati	5	5	5	5	5	4	4	4	4	4	4	4	4
Korea	28	28	28	25	27	27	27	28	28	27	28	28	28
RMI	10	8	10	10	9	9	9	8	8	8	8	10	10
New Zealand	4	4	4	4	3	3	3	2	2	2	2	4	4
PNG <sup>1</sup>	4	0	0	0	0	0	0	0	0	0	0	1	1
Philippines <sup>1</sup>	17	0	0	0	0	0	0	0	0	0	0	0	0
Solomon Islands <sup>1</sup>	5	0	0	0	0	0	0	0	0	0	0	0	0
Spain	4	4	4	4	4	4	4	4	4	4	4	4	4
Tuvalu	1	1	1	1	1	1	1	1	1	1	1	1	1
United States	36	31	31	30	32	31	33	33	30	32	31	33	33
Vanuatu	16	16	16	16	14	14	14	14	14	14	14	15	15
<b>Total</b>	<b>230</b>	<b>178</b>	<b>181</b>	<b>177</b>	<b>189</b>	<b>185</b>	<b>192</b>	<b>191</b>	<b>186</b>	<b>182</b>	<b>185</b>	<b>198</b>	<b>196</b>

<sup>1</sup> - Vessels fished exclusively inside EEZ for all or most of reporting period

### Long Line Coverage

16. Coverage rates for long liners has been set at 5% and this is to be achieved by 30 June 2012; (CMM 2007-01 Annex C Para 6 “No later than 30 June 2012, CCMs shall achieve 5% coverage of the effort in each fishery under the jurisdiction of the Commission”). During 2010 there was very little long line data being received by the WCPFC ROP data provider (SPC) and the estimate coverage for 2010 was still less than 1%. It is reminded that the 5% coverage does not start on June 30; the wording in the CMM says the 5% coverage will be achieved by 30 June 2012; therefore CCMs must start their coverage of long line vessels well before June 30<sup>th</sup> 2012 to achieve 5% coverage by that date.

### Transshipment Coverage (Jan 1<sup>st</sup> – June 30<sup>th</sup> 2011)

17. The 100% monitoring of long line transshipments at sea commenced in 2011, and is being monitored by the Commission Secretariat. The carriers that the Commission ROP is aware of, that are carrying out transshipment at sea, are vessels that are informed to the Secretariat by CCMs when they are placing an observer on a carrier, as well as carriers notifying the Commission Secretariat of their intentions to transship.

18. It is not known if all carrier vessels transshipping at sea are carrying an observer, as it is impossible for the Commission Secretariat to know how many carriers maybe in the area, and how many of these intend to transship at sea. The limitations of the WCPFC VMS make it impossible for the Commission to track carriers throughout the Convention Area. The VMS cannot differentiate between

carriers that are intending to transship catch in authorised ports therefore not requiring an observer on board, and vessels intending to transship at sea and therefore requiring an observer. Table 3 indicates that there have been 18 different carriers transshipping at sea and these have been covered by 27 observers for the period Jan 1st – July 31<sup>st</sup> 2011. Table 3(a) indicates the amount of species reported as being transshipped in metric Tons.

**Table 3 Carriers with observers for high seas transshipments**

Carrier Flag	Number of Carriers	Observer Placements
Kiribati	4	5
Vanuatu	9	16
Korea	1	1
Japan	1	2
Panama	3	3

**Table 3(a) Species Transhipped**

Species	Weight mT	Species	Weight mT
Big-eye	9399	Blue Marlin	419
Yellowfin	1772	Shark	567
Striped Marlin	125	Shark Fin	21.5
Swordfish	1213	Albacore	2677
Black Marlin	42	others	675

### Transshipment Issues

19. The source of observers for carriers transshipping at sea needs to be addressed and clear guidance provided, as some flag States are placing their own observers on these carriers, which is not in the spirit of the “Hybrid Model” adopted by the Commission for the ROP.

20. A key monitoring problem to ensure all carriers transshipping at sea carry ROP observers, but the Secretariat is unable to know what the intentions of a carrier are if it does not contact the Secretariat when the carrier enters the Convention Area. Suggested processes are included for TCC to consider and would allow the Commission to better monitor carrier vessels.

21. The CMM on Transshipment CMM 2009-06 Para 13 states “Each CCM shall ensure that vessels they are responsible for carry observers from the WCPFC Regional Observer Programme (ROP) to observe transshipments at sea.

#### **TCC is invited to consider the following processes for carrier vessels**

- ROP observers placed on carrier vessel transshipping on the high seas must be from a WCPFC CCM other than the flag State of the carrier.
- All carrier vessels must have an approved Commission VMS on board. The VMS must operating at all time when in the WCPFC Convention Area.
- All vessels transshipping to an approved carrier must have an approved Commission VMS on board. The VMS must operating at all time when in the WCPFC Convention Area.
- Transshipment from longline, troll and pole and line fishing vessels in national waters shall be managed in accordance with relevant domestic laws and procedures, and where required the carrier should carry an observer from a WCPFC CCM other than the flag State of the carrier, or if required an observer nominated by the country in whose waters the carrier is transshipping.
- All carriers when entering or exiting the Convention Area regardless of the reason must inform the Commission Secretariat of their position, date and time on entering or exiting the WCPFC Convention Area.
- All carriers operating from home ports within the Convention Area that intend to transship on the high seas must inform the Commission Secretariat of their intention and the position, date, time on entering the high seas of the Convention Area.
- All carriers when entering or exiting the Convention Area or operating from a home port in the Convention Area, that wish to transship on the high seas in the WCPFC Convention Area must

inform the Commission Secretariat; the name of the observer on board and their observer provider.

- The WCPFC Secretariat will be the central depository of observer information of carrier's transshipping at sea in the Convention Area.

### **Purse seine vessels asking exemptions to transit in the Convention Area without an observer**

22. There have been many questions raised by vessels and observer coordinators on certain aspects of the 100% mandatory coverage of the purse seiners and a number of issues that are not clear in the CMMs. Many purse seiners have requested to be permitted to transit to shipyards without an observer from the last port of unloading in the 20N-20S section of the Convention Area to shipyards outside 20N – 20S section of the Convention Area.

23. Conversely when a vessel is ready to leave the shipyard and transit back to the fishing areas in the 20N-20S section of the Convention Area, they may chose to fly an observer to the vessel so they can transit straight to the fishing grounds and not have to bother about coming to port. However a number of vessels have asked to be able to transit direct to a port of first call inside the 20N-20S area from the shipyards to pick up the observer on the way to the fishing grounds.

24. For reasons of practicality and to assist vessels, the following rules are suggested to be adopted as guidelines for vessels wishing to ask for an exemption from carrying an observer when departing or coming into the 20N- 20S section of the Convention Area to go to or from a shipyard for repairs, etc.

### **TCC is invited to consider the following processes for purse seine vessels asking for exemptions to transit in the Convention Area without an observer.**

A purse seine vessel wishing to transit from a recognized port inside the 20N-20S area to a port outside the 20N -20S area, or a purse seine vessel wishing to transit from a port outside the 20N-20S area to a recognized port of first call inside the 20N -20S section of the WCPFC Convention Area without an observer can do so only if the vessel:

- wishing to depart or enter the 20N-20S area without an ROP observer informs the Commission Secretariat, ensuring all information is given and notification occurs at least 48 hours before the scheduled departure from port;
- is completely empty of all its catch when it departs (No fish are to be onboard if it wishes to transit without a ROP observer)
- does not depart without a ROP observer, unless the Commission Secretariat acknowledges the vessel is permitted to transit without a ROP observer on board;
- VMS remains switched on and operating at all times;
- is not permitted to fish at any time during the transit from, to and in the 20N -20S section of the Convention Area if there is no ROP observer present;
- stows all fishing gear, covers its nets, etc;
- ensure that its booms are properly lowered and secured;
- understands that no retrieval, servicing or placement of FADs is permitted at any time when there is no ROP observer onboard;
- Purse seine vessels transiting from a port inside the 20N -20S area, to ports outside of the 20N - 20S section of the WCPFC Convention Area and that have tuna on board must carry an ROP observer at all times.

A few vessels may wish to transit between ports in the 20N – 20S portion of the Convention Area to unload fish, or may be completely unloaded and wish to transit for other reasons before going fishing.

- Purse seine vessels transiting from a recognized port inside the 20N -20S section of the WCPFC Convention Area to another recognized port inside 20N - 20S portion of the WCPFC Convention Area, whether totally unloaded, partially loaded or fully loaded with tuna, must carry a ROP observer at all times.

## Coverage in the overlap area on the high seas

25. Purse seine vessels fishing on the high Seas in the WCPFC 20N -20S section of the Convention Area are required to carry authorised ROP observers on board at all times. Some vessels that are fishing on the high seas in what is called the overlap area; where the IATTC Convention Area has overlapped the WCPFC Convention Area do not seem to not recognize the WCPFC Convention or rules of the WCPFC when it comes to 100% observer coverage. These vessels may not have WCPFC ROP observers on board and could be in contravention of agreements made about fishing on the high seas when they were given permission to fish under the WCPFC Convention.

### **TCC is invited to reaffirm the following for purse seine vessel observer coverage**

- All purse seiners are required to carry a WCPFC ROP observer at the current determined coverage rate (100% for 20N – 20S) when fishing in the WCPFC Convention Area, including the high seas areas between 20N & 20S adjoining the eastern boundaries of the Kiribati line islands and French Polynesia and defined in the Convention as - “ 60° parallel of south latitude to its intersection with the 130° meridian of west longitude; thence due north along the 130° meridian of west longitude to its intersection with the 4° parallel of south latitude; thence due west along the 4° parallel of south latitude to its intersection with the 150° meridian of west longitude; thence due north along the 150° meridian of west longitude.

## Coordinating ROP activities with other RFMOs

### Cross endorsement of observers

26. The cross endorsement of observers to operate in the IATTC and WCPFC Convention Areas has been approved by both organisations and has recently been signed by the Director of IATTC and the Chair of WCPFC.

27. There will be a requirement to sort out the data collected by observers when they are working on vessels in each other's Convention Areas. The WCPFC ROP Coordinator, the FFA Observer Manager and the IATTC Observer Coordinator met in the margins of a meeting recently to discuss data issues, it was found that on checking the Observer forms of each organisation a great deal of data being collected is basically the same, although there were data fields not being collected by both organisations.

28. TCC could consider that the data fields not being collected could be put into a separate form format. Observers that cross the Longitude line between the two Convention Areas would still complete their own observer data formats but would also be asked also to collect the extra format with the data fields that are not in their collection formats.

29. Training of observers from IATTC and WCPFC would be required to form a pool of observers that have been trained in the data collection formats required when they cross into the different Convention Areas.

**TCC is invited to consider operational rules for Cross Endorsement of Observers**

Approved observers from IATTC or WCPFC observer programmes that fish on high seas of the respective Convention Areas will:

- continue to collect the observer data in the format when they commenced the trip;
- collect extra data fields not being collected in the format of the respective Convention Areas; (This will be done by creating a bridging form format that allows data fields not collected in one Convention Area to be collected in the other area)
- ensure that observers being used have been trained in both IATTC and WCPFC data collection and reporting formats

Refer to paper WCPFC TCC7 2011-27 for the full copy of the MOU on Cross Endorsement

**Observer availability**

30. The introduction of CMM 2008-01 - Conservation and Management Measure on Bigeye and Yellowfin Tuna in the Western and Central Pacific Ocean had brought about a rush for available observers and the need to train more observers in a short period. A survey carried out in July 2010 indicated there were approximately 550 available observers for the ROP. Another survey conducted in July 2011 indicated that this number had increased to approximately 620 observers.

31. To ensure there is a number of observers available to ensure coverage of vessels, FFA, SPC and member countries are developing and training new trainers in each major observer centre to allow the national programmes to eventually be able to carry out their own training.

32. The Pacific Island observer programmes manages to supply sufficient observers for the 100% observer coverage of purse seiners, however with 5% coverage of long liners, and 100% coverage of carriers transshipping at sea and the usual attrition rate that occurs in observer programmes, observer training will be required for most large programmes on a continual basis.

**Observers for special situations**

33. The Commission budget allocated US\$30,000 for “Observers for Special Situations” in 2011, and it had been decided that the funding for 2011 would be used for observers to assist in the Spill/Grab Sampling Project 60 being managed by SPC. At the time of writing this project was still experiencing some difficulties in getting a range of purse seine vessels across all fleets, and unfortunately some positive arrangements that were being made were cancelled due to the Tsunami in Japan.

34. It is planned that a similar amount will be requested for 2012, with the funding of observers for “Special Situations” to be used for assisting the ROP to audit data collections of long line fleets, which may be permitted to use their own nationals on vessels that fish occasionally on the high seas.

**Observer providers to the ROP**

35. The following programmes are able to supply observers for the WCPFC ROP (Table 4). Audits of all these programmes to ensure they are complying with or are developing standards as required by the Commission are ongoing, all programmes should be fully authorised by June 2012.



**Table 4 - WCPFC ROP Observer Providers<sup>1</sup>**

Providers for the ROP Observer Programme	Year Interim authorised	Observer Coordinator Contact details <sup>1</sup>
Australia	2009	Mike Yates <a href="mailto:Mike.Yates@afma.gov.au">Mike.Yates@afma.gov.au</a>
China	2009	Chen Xuejian <a href="mailto:admin@tuna.org.cn">admin@tuna.org.cn</a>
Cook Islands	2009	Andrew Jones <a href="mailto:A.Jones@mmr.gov.ck">A.Jones@mmr.gov.ck</a>
Federated States of Micronesia	2009	Steven Retalmai <a href="mailto:steveretal@live.com">steveretal@live.com</a>
Fiji	2010	Netani Tavaga <a href="mailto:stone_domain@hotmail.com">stone_domain@hotmail.com</a>
FSM Arrangement	2009	FFA Secretariat <a href="mailto:timothy.park@ffa.int">timothy.park@ffa.int</a> <a href="mailto:ambrose.orianihaa@ffa.int">ambrose.orianihaa@ffa.int</a>
Japan	2009	Shinobu Nakai <a href="mailto:shinobu_nakai@nm.maff.go.jp">shinobu_nakai@nm.maff.go.jp</a> Wataru Tanoue <a href="mailto:Wataru_tanoue@nm.maff.go.jp">Wataru_tanoue@nm.maff.go.jp</a>
Kiribati	2009	Tekirua Riinga <a href="mailto:tekiruar@mfmrd.gov.ki">tekiruar@mfmrd.gov.ki</a>
Korea	2009	Dr. Zang Geun Kim <a href="mailto:zgkim@nfrdi.go.kr">zgkim@nfrdi.go.kr</a>
Marshall Islands	2009	Dike Poznanski <a href="mailto:dikep@mimra.com">dikep@mimra.com</a>
US Multilateral Treaty on Fisheries	2009	FFA Secretariat <a href="mailto:timothy.park@ffa.int">timothy.park@ffa.int</a> <a href="mailto:ambrose.orianihaa@ffa.int">ambrose.orianihaa@ffa.int</a>
Nauru	2010	Ace Capelle <a href="mailto:nrvms@ccnpac.net.nr">nrvms@ccnpac.net.nr</a>
New Caledonia	2009	Hugues Gossuin <a href="mailto:hugues.gossuin@gouv.nc">hugues.gossuin@gouv.nc</a> <a href="mailto:HuguesG@spc.int">HuguesG@spc.int</a>
New Zealand	2009	Andrew France <a href="mailto:Francea@fish.govt.nz">Francea@fish.govt.nz</a>
Palau	2009	To be advised
Papua New Guinea	2009	Philip Lens <a href="mailto:plens@fisheries.gov.pg">plens@fisheries.gov.pg</a>
Philippines	2009	Alma C. Dickson <a href="mailto:alma_dickson@yahoo.com">alma_dickson@yahoo.com</a>
Solomon Islands	2009	Derrick Suimae <a href="mailto:dsuimae@fisheries.gov.sb">dsuimae@fisheries.gov.sb</a>
Chinese Taipei	2009	Mr Jungchun-tai <a href="mailto:Jungchun@msl.fg.gov.tw">Jungchun@msl.fg.gov.tw</a>
Tonga	2010	Viliami Mo'ale <a href="mailto:vmoale@tongafish.gov.to">vmoale@tongafish.gov.to</a>
Tuvalu	2009	Falasese Tupau <a href="mailto:falasese@yahoo.com">falasese@yahoo.com</a>
USA	2009	Joe Arceneaux <a href="mailto:stuart.arceneaux@noaa.gov">stuart.arceneaux@noaa.gov</a>
Vanuatu	2009	John Mahit <a href="mailto:jmahit@gmail.com">jmahit@gmail.com</a>

<sup>1</sup> Detail as August 22<sup>nd</sup> 2011

### Electronic Data collection

36. The WCPFC ROP has been trialling electronic reporting by observers using on deck electronic instruments supplied by GEO EYE (“Osprey Personal Tracking Devices”.) GEOEYE were generous enough to supply these units free of charge with the small amount of communication costs borne by funds made available from the US. There is potential for units like these to be able to allow observers to collect information and report it in near real time, with the possibility that the data collected will do away with some paper reporting and will allow observer data to be entered into the units and this can be sent as it occurs or to save costs can be accumulated and sent once daily. The data currently goes into a trial data base back on shore as the observer reports on the vessel. It is very early stages of the trials and results are preliminary and an early report on the trials and the units used is presented as **Attachment 3** for your information.

### Catch Retention for high seas:

37. All Purse seine vessels are required to retain all tuna species on board unless they are “unfit for human consumption” If the vessel wishes to discard tunas because they are unfit for human consumption the vessel shall submit to the Executive Director, a report on the discards within forty-eight 48 hours. The discards and reasons reported to the ROP secretariat on why tunas were discarded between July 1<sup>st</sup> 2010 and June 30<sup>th</sup> 2011 are listed in Table 5. A couple of vessels also reported discards of non tuna species which is not a requirement of the CMM, however these have been included in the table.

**Table 5 Reasons that vessel's reported discards**

Reason for Discard	Sum of SKJ Discards	Sum of YFT Discards	Sum of BET Discards	Sum of Other Species Discards
Unknown Reason	30	0	0	
Poor Quality (Unfit for human consumption)	128.2	21.6	0	
Gear Damaged	95.9	97.5	10	
Fish too small	0.15	0.75	0	
Insufficient Well Capacity (Last Set)	1978.5	162.7	35.8	
Unwanted Species (RRU TRI BLM SHK)	0	0	0	.19
<b>Total in Metric Tons</b>	<b>2234.911</b>	<b>282.55</b>	<b>45.8</b>	<b>.19</b>

38. The major reason given for discards was insufficient well space; this usually occurs when the vessel catches too many tunas in its final set and only needs a proportion of the tunas caught to fill the vessel. In one report a vessel caught nearly 300 tons in its last set and discarded an estimated 180 metric tons of this catch, another vessel reported discarding 130 metric tonnes discarded on the final set. One vessel reported 30 mT Skipjack discarded but no reason was indicated.

39. Altogether there were 156 reports received from 51 vessels on discards. Table 6 indicates the flag State vessel that reported discards to the Secretariat for the period 1<sup>st</sup> July 2010 – 30<sup>th</sup> June 2011.

**Table 6. Purse Seine Vessels reporting retention of catch to WCPFC**

Vessel Flag State	No. Reports	No. Different Vessels	Vessel Flag State	No. Reports	No. Different Vessels
EC	4	3	KR	16	8
FSM	1	1	SP	2	2
JP	52	20	TW	74	15
KI	7	2			
			<b>Total</b>	<b>156</b>	<b>51</b>

### Regional Observer Coordinator

40. During the period since the last ROP report for TCC6, the ROP Coordinator has assisted in a number of training sessions at the WCPFC head quarters in FSM, Kiribati, and Fiji and also at the observer training centre at Navotas, Manila Philippines. The ROP Coordinator continues to offer advice to many CCMS on different aspects of observer training and the requirements of the WCPFC.

### ROP Data quality Officer

41. The ROP Data Quality Officer commenced duties on the 1<sup>st</sup> July 2010 and since commencement has been extremely busy developing and maintaining WCPFC data bases for ROP information on Coverage, Catch Retention, Transshipment Notifications, etc. He has also been involved in helping with the audit procedures and has been involved in the audit of some of the WCPFC ROP programmes.

### Travel/Meetings

42. The ROP Coordinator was involved in TCC6, (Pohnpei), WCPFC7 (Hawaii USA), SC5 (Tonga) as well as the PI Regional Observer Coordinators Workshop and then the PI Regional Debriefers Workshop in Cairns Australia during 2010. The ROP Coordinator made contribution to each of these meetings on ROP matters and issues, as well as assisting with the general administration and organisation of these meetings.

43. Other travel for the ROPC and the Data Quality Officer since TCC6 has been involved in auditing programmes in the USA, RMI, Kiribati, Fiji, Solomon Islands, Tonga, Nauru, Korea, PNG, FFA, Vanuatu. In a few cases audits were timed to correspond with observer training or other meetings. Training was attended in the Philippines, Kiribati, FSM and Fiji.

## **Summary**

44. When discussing the ROP at SC some CCMs noted the progress that has been made and the challenges that still require to be met by the ROP. Implementation of the 100% purse seine observer coverage has required a very substantial effort from the members involved. These efforts have been strongly supported by a range of donors, particularly New Zealand and the USA and by the regional organisations FFA and SPC. It was also noted at SC that a large volume of information, including scientific information is now flowing from the 100% purse seine coverage; however they also noted that there are a range of issues still to be addressed by TCC to ensure the ROP is fully effective.

45. The establishment of the ROP and the implementation of 100% observer coverage has been a massive undertaking, but it is clearly a very important asset for improving the availability of scientific, compliance, environmental, and management information. There continues to be a need for a harmonised understanding of the roles of the Secretariat, providers and flag States when it comes to making ROP observer placements or reporting to the Commission on ROP matters. There is also a need for TCC to ensure that the ROP moves forward in an effective manner and to make recommendations on a number of outstanding issues on the operations of the ROP that are indicated in this report.

46. The ROP continues to have many operational problems that need to be addressed, with continuing introduction of new CMMs requiring observer input, there will always remain many areas that need guidance in resolving the reporting and operational problems associated with these CMMs. The TCC or the Commission must deal with these issues and give guidance. Some of these issues are highlighted in this report and different papers at this meeting. To continue to pass over these issues because agreement cannot be reached at meetings will not allow the ROP to be as effective as members had intended it to be. Genuine cooperation is the only way that these issues will go forward.

47. The ROP is the world's largest observer programme and while there are problems it continues to improve in quality and standards; we need to ensure that there is national infrastructure and support so these qualities and standards are maintained at a high level. Cooperation between all the national programmes, organisations and flag States is critical to the future and success of the ROP for the WCPFC Convention Area. Criticism comes from some organisations and within the membership on aspects of the ROP and these criticisms should be heeded, and the problems identified should be rectified if valid. Unfortunately many persons and outside organisations do not understand the intricate setup that is called the ROP, and have little knowledge or do not want to recognize the excellent work that is being carried out by more than 600 observers in the ROP.

48. The ROP Secretariat thanks all the WCPFC ROP Coordinators and their staff, the FFA observer programme staff, SPC OFP staff and especial thanks to to all observers for their input into the ROP.

Report End



**TECHNICAL AND COMPLIANCE COMMITTEE**

**Seventh Regular Session**

28 September - 4 October 2011

Pohnpei, Federated States of Micronesia

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**SUMMARY OF REGIONAL OBSERVER PROGRAMME AUDITS**

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**WCPFC TCC7 2011/14 Attachment 1**

The ROP Secretariat commenced its audits of Regional Observer Programme (ROP) interim authorised observer programmes in late 2010 and to date has completed audits on 14 of the 23 countries or organisations that are part of the ROP. The remaining audits will be completed late in 2011 and in early 2012.

The purposes of the audits is to ensure that Commission standards are being applied and/or are being developed and maintained by programmes that wish to gain ROP full authorisation before the due date of June 2012.

In most cases the programmes audited were well developed and were following the agreed Commission standards to the best of their ability. However there were some areas that needed improvement. The following observations are for each standard and note the problems that programmes were having with these standards.

**1. Minimum Data Fields**

**Standard**

*The standard for “Data Fields, Management, Distribution and Use” will be that CCMs will use existing data field formats collected by their national or sub regional observer programmes and that also they will ensure that the Commission minimum data standard fields for the ROP are included in their data collection formats.*

**Observation**

The FFA/SPC formats which are used by most programmes were changed in 2009 to include all the WCPFC approved data fields. Unfortunately SPC/FFA has not yet released this version of the observer data collection formats, but has made an undertaking to release the new version containing all the WCPFC approved data fields before the end of 2011.

Observers also collect important information in their journals and written reports, and in some programmes this information is not made available to SPC or the Commission. These reports are an extremely important component of observer trips and are required for many reasons as they often contain

important anecdotal technological, science, management and compliance information. The originals should be retained by the programme, but a scanned copy of the written report and daily journal, should be sent with the data collected by the observers to SPC or the Commission Secretariat.

## **2. Observer Training**

### **Standard**

*Standard for “Observer Training” is that training programmes should be linked to the Commission’s decisions in place, available for review and training programme materials provided to the Secretariat*

### **Observation**

The Pacific Island (PI) programmes are all using approved Pacific Island Regional Fisheries Observer (PIRFO) standards developed for observer training by FFA/SPC. Other programmes have their own standards, which are all of a high quality.

There has been an ongoing need for more observers in the PI countries as the programmes are coming to terms with 100% coverage on purse seiners and the 5% long line coverage commencing in 2012. Some of the problems detected during audits included the fact that initially the quality of observer trainees chosen for observer courses in a couple of countries had been poor and many trainees struggled to pass the basic requirements of the course. Selection of observer trainees is extremely important and the entrance criteria used in FFA/SPC courses has improved the quality of observers trained.

## **3. Observer Trainers**

### **Standard**

*The ROP standard for the Commission for “Observer for observer Trainers is: “CCMs will use existing national and or sub-regional training standards. CCMs will develop trainer qualifications, available for review by the Secretariat.”*

### **Observation**

Senior observers from PI and other programmes are generally selected to be taught the techniques used in observer training. In the PI they are currently being trained by FFA/SPC at special sessions, and for practical experience are also being used under guidance of qualified trainers to assist in sub regional and national training sessions. The intention is that programmes will eventually be able to use their own personnel to train their own observers. This is a positive move so the PI programmes can become self sufficient in supplying their own qualified trainers. Other programmes use a similar procedure to train their observer trainers.

## **4. Code of Conduct**

### **Standard**

*The agreed standard for “Code of Conduct” is that each CCM should have a Code of Conduct in place, available to each observer, available for review and if not in place, to be developed.*

## **Observation**

All programmes audited had a “Code of Conduct” in place, and for the PI programmes most were similar to the guide produced by the Commission ROP. The “Code of Conduct” is explained during training sessions for observers, and includes protocols to investigate complaints or breaches. Depending on the outcome of these investigations, breaches are dealt with by a period of suspension determined by the severity of the incident. It was found in a couple of programmes that observers are only given the code at the beginning of their observer careers, whereas a few programmes re-issue the code when contracts are signed, and one programme gave a copy of the code to each observer as a standard issue for every trip.

## **5. Sea Safety**

### **Standard**

*The standard for “Sea - Safety” is that all ROP observers must undergo training in sea safety and emergency procedures to international recognized standards, and that such training procedures be made available to the Secretariat*

### **Observation**

In most programmes audited observers were confirmed as having been trained in “Sea Safety” by a qualified lecturer in international “Sea Safety” standards. Training in most cases took place in a fisheries or maritime college. All participants that passed were given “Certificates of Sea Safety” indicating they have completed and passed the course to international standards.

## **6. Placement /Deployment**

### **Standard**

*The standard for “Coordinating Placement” is that the*

- *WCPFC National Observer Programme Coordinator should be in place,*
- *There should be a system for observer placement administration and that documentation describing observer placement administration should be provided to the Secretariat.*
- *Audit measures to check on deployment procedures will be developed by the Secretariat*

### **Observation**

In all programmes audited there is a WCPFC ROP Coordinator in place. Procedures in some programmes are documented and copies of the procedures were made available to the ROP secretariat; some programmes have not documented their basic system of administration for placing their observers and have all been advised to document the system and procedures they use for placement of observers. The procedures in the documents that were presented were acceptable; however given the situation of 100% observer coverage of purse seiners and 5 % coverage of long liners, the procedures in some cases, will need to be updated to better reflect current day situations.

## **7. Debriefing & Briefing**

### **Standard**

*The standard for “Briefing and De-briefing of observers” is that there is a system for briefing and de-briefing of observers in place and documentation describing briefing and de-briefing available to the ROP Secretariat*

### **Observation**

The FFA/SPC debriefing format is used during the debriefing of all PI countries; other countries have their own formats. Unfortunately for all PI countries with the exception of two programmes there are only a very small number of debriefers trained and qualified by FFA/SPC; these organisations have the task of certifying debriefers in the FFA/SPC countries. The process of training debriefers is in place and is ongoing for FFA/SPC member country observer programmes. There is a need for a number of dedicated certified debriefers with proper facilities to operate in most PI countries.

It was noted, that the number of debriefers available in most PI countries is inadequate, and it will take time and money to get these programmes up to a respectable level of debriefing. Most countries visited were aware of the needs to have more debriefers, but in most cases had no allocation of space or funds to allow debriefers to operate. There is ongoing training of debriefers to build up capacity and quality in PI countries, but it will take 2-3 years to be able to get the required numbers for comprehensive and accurate debriefing of all observer trips.

It was reported that unqualified debriefers such as senior fisheries observers, the fisheries observer coordinator and others not connected to the programmes were assisting to debrief some of the trips. A couple of programmes audited had only about 20% of trips debriefed, the other 80% were sent to SPC without any prior debriefing.

Comprehensive debriefing requires at least one to two full days to complete. Length of time spent on debriefing depends on how well an observer fills out his/her forms from a trip. Funding for training and setting up facilities is also lacking and unless rectified will hinder this important area of development for the PI programmes.

There are also ramifications on the unavailability of debriefers, as it is proposed elsewhere that vessels have access to information of the observer’s trip aboard their vessel after an observer has been debriefed. This will be difficult to comply with if the observer data and information hasn’t been debriefed and checked for correctness and completeness, due to the lack of available debriefers.

## **8. Debriefing Training**

### ***Standards***

*The Standard for qualification of observer debriefers is that debriefers will be experienced in observer matters and that CCMs will use existing national and sub-regional programme standards for debriefers. CCMs will prepare qualifications for a debriefer, available for review by the Secretariat.*

## **Observation**

Each programme uses their own standards for debriefer trainers, however all the PI programmes use the FFA/SPC debriefing standards developed as part of the FFA/SPC regional harmonization process. Most PI programmes have had a small number of persons trained in the area of debriefing, however these programmes are currently waiting further training sessions for the selected personnel to complete the FFA/SPC debriefing training programme.

Debriefing training is in the early stages of development with most PI countries; however the ultimate goal of each programme is to have sufficient trained persons to be able to carry out full and comprehensive debriefings of all their observers.

## **9. Equipment and Materials**

### **Standard**

*The standard for “Equipment and Materials” is that observers are provided with appropriate equipment, including safety equipment to carry out their roles and tasks on board a vessel.*

### **Observation**

All basic equipment is supplied for observers to carry out their tasks; however safety equipment is not distributed by all programmes. Many programmes rely on agreement with vessels to provide observers with safety equipment when they are on board carrying out observer duties.

The standard in some programmes is not entirely complied with for distribution of safety equipment, but it is realized that in many cases some essential safety equipment is being supplied by vessels when observers board their vessels, and therefore observers do have some safety equipment available when carrying out their duties on these vessels.

There is a need for programmes to budget enough funds to fit out all observers with quality safety equipment. This equipment should be properly monitored and maintained by the observers with distribution administered by a member of the observer programme staff. Observers should also take responsibility of the items issued to them, and be expected to compensate the programme for equipment lost or left behind on vessels or during travel.

## **10. Communications**

### **Standard**

*The standard for “Communications “ is that observers have access to appropriate communication facilities, including emergency communication facilities while on board a vessel.”*

### **Comment**



Regular communications are useful for many purposes, including regular observer reports and the safety and well being of observers. Most observer programmes have no regular voice communications with their head quarters. Sometimes a “Satellite Phone” is used if supplied or available on vessels; however most observers send regular (weekly) Email or fax to their providers. Radio communications is included in the observer training programmes that have been audited so far. It is noted that many long liners do not have any communication facilities another than HF/VHF radio and all observers will need to be refreshed with Radio Communication protocols from time to time.

## **11. Performance of Observers**

### **Standard**

*The standard for “Measuring Performance” is a means to report on the performance of the observer programme and a means to report on the performance of individual observers as part of the annual reporting requirements established by the Commission.*

### **Observation**

Most programmes use the reports from the debriefing of observers as a means to help determine performance of their observers; these are made available for each trip that is debriefed. SPC looks at the quality of individual observer data from time to time, and can produce if requested a report on the quality of data collected by individual observers. Long term appraisal will rely on the programme being able to debrief the observer properly and an opinion from SPC on the quality of the data collected by the observer. It was noted that observer coordinators interviewed indicated the programme have dismissed and suspended observers for not attaining standards that meet their programme requirements for data collections.

Training or retraining of observers is important to ensure quality data is collected at all times. Ensuring that proper debriefing occurs from qualified debriefers for each observer returning from a trip is extremely important for observer’s development and for the overall quality of the programme.

## **12. Dispute mechanism**

### **Standard**

*The standard for “Dispute Settlement” is a dispute resolution mechanism should be in place, and if not in place, to be developed, and a description of the dispute resolution mechanism provided to the Secretariat*

### **Observation**

Most programmes audited had as part of their ‘Code of Conduct’ protocols on how to handle disputes and most also have a consultation process and suggested penalties for observer infringements. It was unclear in many programmes, other than a formal letter to the programme Director, whether there is a procedure or mechanism in place for vessels to complain about observer conduct and work ethic.

## **13. Authorisation process**

## **Standard**

*The Secretariat will authorize national observer programmes, rather than individual observers; this is consistent with the Convention text. CMM-2007-01 Para 12(b) also states that the Secretariat will authorize observer providers.*

## **Observation**

All requirements were found to be adequate for the “Interim Authorisation” of all observer programmes who applied for ROP Interim Authorisation, and therefore all were eligible to apply for full authorisation.

## **14. Coverage**

### **Standard**

*Commission determined observer coverage's are:*

- *purse seiners 20N to 20S -100% coverage ( start Jan 2010 )*
- *outside this area 20% purse seine coverage*
- *long liners coverage is 5% by June 2012*
- *Carriers transshipping at Sea 100% (LL& P&L) (start Jan 2011) – Note that PS must still go to approved areas in Zones or ports to transship and long liners may need exemptions from certain countries to transship on the high seas.*

### **Observation**

Most observer programmes audited were struggling to maintain observer numbers when the 100% observer coverage of purse seiners commenced. They were required to use observers from other programmes to assist with the supply of observers when it got busy in their ports; however with all the extra training, observer numbers for purse seine coverage are adequate in most programmes audited. A number of programmes interviewed stated they still need extra observers for future coverage of long liners, and the carriers, as well as replacements for the attrition of observers.

Most programmes cited different problems they were having with getting extra observers, including scheduling extra training because of lack of funds, lack of commitment by their Fisheries Departments/Divisions and the heavy commitments by FFA/SPC who have limited resources when it comes to supplying trainers. This will be resolved when an adequate number of qualified PI trainers become available for each programme.

## **15. Vessel Safety Certificate (VSC)**

### **Standard**

*The interim minimum standard for a Vessel Safety Checklist (VSC) will be that a CCM should have a VSC in place, and to be used prior to an observer boarding a vessel; and if not in place, CCMs may use, as a guideline, the VSC developed by the Commission.*

### **Observation**

A few of the programmes audited so far, currently did not use a Vessel Safety Certificate (VSC) when placing an observer. Nor did they check a vessel for safety when an observer is placed on board. However all the PI programmes use the FFA/SPC pre boarding check list which does contain some aspects of vessel safety. A small number of programmes audited had comprehensive vessel safety check lists in place.

Following discussion with the PI Coordinators at the SPC/FFA Regional Observer Coordinators Workshop held recently, it was agreed that the FFA/SPC pre boarding check will be redesigned at the next FFA/SPC Data Consultative Committee to include all aspects of Vessel Safety Checks. It was also agreed that a copy of the pre boarding report should be attached to the observer data and reports along with any briefing or debriefing reports.

## **16. Insurance**

### **Standard**

*The Interim Standard for Insurance of Observers for ROP duties is that CCMs will use existing national standards for health and safety insurance. CCM providers of observers will make sure an observer placed on a vessel for ROP duties has health and safety insurance.*

### **Observation**

Many programmes had limited insurance coverage for their observers; most observer are covered by national health and insurance schemes when on shore in their home countries, however when on board a vessel, observers are generally limited to the coverage given to them by the vessels insurance. It was found that not all observers were covered for insurance, especially when on long liners or when traveling to or from a vessel.

## **17. CMM adherence**

### **Standard**

*The providers are to ensure that all observers fully understand the content of the CMM's especially in relation to their roles and tasks in monitoring the CMM's*

### **Observation**

Many programmes interviewed for the audits so far said they had problems with CMM adherence. The problem - coordinators said they were having, was on learning what has been changed, or what is a new, not only for CMM's but also for other observer requirements and issues. Many said this was caused by the lack of feedback from their senior staff on some of the issues after they attended relevant meetings; also they noted that circulars sent to official contacts on these issues were hardly ever forwarded to them for their information. They not only said this was a problem with WCPFC but was also a problem from other PI regional organisations as well.

Realizing that this an ongoing problem with many programmes, the WCPFC ROP secretariat undertook to ensure all CMM's resolutions or directives that were relevant to observer operations or coverage would be compiled each year, as soon as practical after the WCPFC annual meeting, and would be sent directly to all ROP coordinators, observer trainers and other senior observers. This will commence in early 2012.

## **18. Summary**

Since the introduction of the 100% observer coverage for purse seiners, most observer programmes have coped well in supplying observer numbers , but all programmes have said that they require continual training to upgrade the observers, and to ensure they have enough for all the demands put on them by the WCPFC different gear type coverage requirements.

It was noted, that many programmes (not all) have totally inadequate numbers of debriefers for their debriefing programmes, and this should be a priority to be rectified. This is an area that is developing in many PI countries, but funding and recognition of this important aspect of observing is not forthcoming in many national programmes.

There is a need to increase the number of available observers for most programmes, as this will allow for some attrition of the “not so good” observers, as well as being able to cover the expected increased need for observers to satisfy long line and carrier observer coverage requirements.

The quality of the observers needs to be monitored carefully, as it has been reported that the data collections held by SPC indicated that a percentage of observer data is not useable, because it is collected incorrectly, or is not collected at all. This is clearly a waste of valuable resources, and shows the need for better trained and qualified observers, it also highlights that a proper debriefing programme needs to be in place for all programmes.

The quality of observers is extremely important and an entrance criteria for training needs to be rigidly applied as does the initial selection process. It was found in a - few programmes that some observer trainees were placed in courses by the hierarchy without going through any criteria, and in many cases these persons failed the courses and took time and effort away from persons who could have passed.

The sending of data to the SPC or WCPFC after each observer trip is extremely important and unfortunately many programmes are not sending data in a timely manner. SPC and WCPFC ROP have been working hard to rectify this problem by supplying equipment, personnel and other means in transferring the data in a quick and timely manner.

There is a need to assure that observers are covered by insurance when travelling, on board vessels, and when working as an observer on shore. Many programmes had some insurance for observers but most observers were not covered for all the periods they worked as observers.

Health checks (Medicals) by programmes on their observers varied from being comprehensive to none at all. The Commission does not have a standard for health checks, however it is recommended given the issues that some programmes have had with observers being unfit to carry out trips on vessels because of health constraints, that all programmes adopt a standard that requires observers to have a full health check

(medical) when first trained and then a regular check after this, suggested to be every 18 months to two years.

Most programmes will be authorised as some of the standards required through no fault of the programme are just not available in a timely basis, for example.

- Debriefing and Debriefing training –For PI and some other countries this is under development with the help of FFA, SPC, WCPFC and NMFS and given another couple of years this problem should be rectified. The development of the debriefing should not hinder full authorisation, however a follow up check in a couple of year's time to ensure the standard has been reached is recommended

The WCPFC ROP has audited 14 programmes and still is to audit 9 programmes before June 2012, a report will be compiled after all the audits have been completed. Table 1 indicates programmes that have been audited up to 1st August 2011. Table 2 indicates tentative dates for programmes still to be audited.

**Table 1. Programmes Audited by the ROP Secretariat.**

<b>Programme</b>	<b>Audited</b>
Philippines	May 2010
USA	November 2010
Marshall Islands	March 2011
Korea	March 2011
Fiji	March 2011
Tonga	March 2011
Vanuatu	April 2011
Kiribati	May 2011
Solomon Islands	June 2011
US Treaty (FFA)	June 2011
FSM Arrangement (FFA)	June 2011
PNG	June 2011
Nauru	June 2011
FSM	July 2011

**Table 2 Programmes still to be audited**

<b>Programme</b>	<b>Tentative Audit Dates</b>
China	probably Oct 2011
Chinese Taipei	probably Oct 2011
Cook Islands	Sept 2011
Australia	Feb 2012
New Zealand	Feb 2012
Palau	Dec 2011
New Caledonia	To be organized
Tuvalu	Sept 2011
Japan	To be organized



**SCIENTIFIC COMMITTEE  
SEVENTH REGULAR SESSION**

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**STATUS OF OBSERVER DATA MANAGEMENT**

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**WCPFC-SC7-2011/ST IP-06**

Peter Williams<sup>1</sup>

Introduction

Observer data management encompasses a number of activities that ensure the data collected by observers are made available for the work of the WCPFC in a form that is both representative and of acceptable quality. The underlying activity involved in Observer Data Management is the entry of the observer data into a standardised database system, but it also covers the following activities:

- Scanning of hard-copy observer data for transmission to SPC/OFP and for data archiving purposes;
- On receipt at SPC/OFP, the pre-entry screening of the scanned data for completeness (i.e. all forms are available), data registration and preparation of 'batches' for data entry;
- Ongoing technical support for the observer database system (provided by database developers);
- Ongoing training of observer data entry staff (covering the database system, tuna fisheries and the type of data collected by the observer);
- Ongoing supervision and support of the data entry team, including the setting of priorities for data entry and the day-to-day support in resolving issues with the data;

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<sup>1</sup> Oceanic Fisheries Programme (OFP), Secretariat of the Pacific Community (SPC), Noumea, New Caledonia.

- Auditing of the processed data (which is a function aligned with the debriefing process);
- Auditing and importing electronic observer data that are provided in a non-standard format;
- Data quality control and assignment of data quality indicators in the observer database;
- Extraction of the data to satisfy the ROP definition which are then transmitted to the WCPFC Secretariat
- Development, installation and training with respect to database query tools (e.g. the Observer Trip Viewer System) and reports provided to the users of the data;
- Provision of ad hoc data summaries to users, as required.

The SPC/OFP has been processing observer data on behalf of their member countries for more than 15 years and the Seventh Regular Session of the Commission (6–10 December 2010) approved the continuation of this work in respect of the Regional Observer Programme (ROP) data in the short-medium term (Anon., 2010a, Anon., 2010b).

The majority of the observer data processed by the SPC are ROP-defined purse seine trips<sup>2</sup> which are currently designated as the highest priority for processing. The SPC/OFP also processes non-ROP observer data that are, *inter alia*, of importance to the scientific work of the WCPFC and so have been included in the description of observer data management and data summaries, presented in this paper.

Williams (2011) notes the progress made in the provision of observer data over the past twelve months, in particular:

- The authorization for SPC/OFP to release ROP data to the WCPFC has now been provided by all Pacific Island countries (that hold ROP data) to the SPC/OFP for processing;
- The authorization for the release of FSM Arrangement and US Multilateral treaty purse seine observer data, defined as ROP data, to the WCPFC (May 2011);
- The provision of ROP trip data for a Chinese Taipei longline vessel fishing in 2009/2010;
- The provision of ROP trip data for a US longline vessel fishing in 2010;
- The provision of observer data to the SPC/OFP for 30+ trips conducted on Philippines purse seine vessels operating in Philippine waters (non-ROP trips) in 2010;
- The provision of observer data to the SPC/OFP for 6 trips conducted on Vietnamese longline vessels operating in Vietnam waters (non-ROP trips).

This paper serves to provide an update on the status of ROP data management at SPC/OFP over the past six months, covering the following:

- Human resources involved in observer data management at SPC/OFP
- Current issues with observer data management
- Initiatives for distributing observer data processing
- Future expectations

This paper is a work-in-progress and will be enhanced for future WCPFC meetings to include information relevant to the work of the Commission, as required.

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<sup>2</sup> ROP trips do not include that part of an observer trip conducted on a vessel fishing in their home waters (waters of national jurisdiction).

## Human Resources for managing observer data

Over the past four months, the team dedicated to managing observer data has grown significantly as a result of funds provided under the WCPFC ROP Data Management project, the New Caledonian government and the New Zealand-funded 'Pacific Economic Growth Observer Programme'. The current team comprises:

- Two (2) technical staff overseeing observer data management
  - Observer Data Manager (commenced 13<sup>th</sup> June 2011)
  - Observer Data Audit Officer (commenced 13<sup>th</sup> June 2011)
- Twelve (12) observer Data Entry staff
  - Four data entry staff at SPC Noumea (recruited in 2010; covered by New Caledonia and WCPFC funds)
  - Four data entry staff at SPC Noumea (recruited in 2<sup>nd</sup> quarter 2011 and covered by WCPFC funds);
  - Two data entry staff at SPC Pohnpei (recruited in 2<sup>nd</sup> quarter 2011 and covered by WCPFC funds);
  - Two data entry staff at SPC Noumea (to be recruited in 3<sup>rd</sup> quarter 2011)

In addition to the cadre of staff dedicated to observer data management, there are several other SPC/OFP staff involved in this area, including:

- The Data Registry clerk, who spends at least 80% of her time on observer data management work;
- The Fisheries Database Analyst/Developer, who has been responsible for the observer database development, installation and training prior to the establishment of the two new technical positions;
- Fishery Monitoring Section staff in the observer support unit (3), who are regularly called on for their knowledge and expertise in resolving issues identified in the observer data during data entry;
- Head of OFP Data Management Section, who works with the Observer data manager on strategy, priorities related to observer data management and human resources issues;
- OFP staff on duty travel and Pacific Island participants at regional meetings, who are used as 'mules' to ensure scanned data are brought back to SPC/OFP for processing.

The observer data entry staff are required to successfully complete the 1-2 week full-time observer training course to understand the tuna fisheries and the data collected by observers. The four new data entry recruits at SPC Noumea undertook the course in early July 2011, with two data entry staff from the Forum Fisheries Agency (FFA) and the Observer Data Manager and Data Audit Officer. The data entry staff at SPC Pohnpei are expected to undertake similar training in the coming months.

After an initial familiarisation period and training, the newly recruited data entry staff are approaching the rate of data entry required to cover the incoming data.

## Current issues in ROP data management



There are a number of areas that continue to delay the availability of processed observer data for the work of the WCPFC. The most important constraints, and plans for attempting to resolve them are:

- The overwhelming stress on the resources of national and regional observer programmes as a result of the CMM 2008-01 requirement for 100% coverage in the purse-seine fishery has meant that countries have been severely delayed in scanning and sending their data to SPC for processing. Tables 1 and 2, and Figure 1 provide a provisional summary of 2010 observer data that have been made available to the SPC/OFP as at the beginning of July 2011. Most countries have now been provided with at least one scanner and SPC/OFP has developed specific scanning software to facilitate the scanning of observer data and to ensure that the quality of scan is adequate. There has been a noted improvement in the provision of data in recent months and initiatives such as the provision of external hard-drives to transport the scanned data and improved usage of the internet to transfer scanned data, are two areas that are currently under investigation;
- Due to the delay in recruiting dedicated observer data management staff, a significant backlog of data (to be entered) has built up. Prioritisation to select the most important data to enter will be used as an interim measure until the backlog has been resolved;
- There have been a number of data quality issues identified over the past year and this is expected to improve with the recruitment of the Observer Data Quality Officer.

## **Initiatives for distributing observer data processing**

In addition to increasing resources for processing observer data over the past 12-18 months (refer to Section 2 above), the following initiatives for trialling the distribution of observer data processing were undertaken in the past six months:

- The SPC-developed TUBs Observer database system was installed on a trial basis in the Marshall Islands in 2010, and was installed for trial in the Philippines Bureau of Fisheries and Aquatic Resources (BFAR) offices in February 2011. The latest version of TUBs is becoming more stable and will potentially be available for additional trial sites in country fisheries offices in the coming year;
- Two data entry staff were recruited at the SPC Pohnpei office in June 2011 to enter some of the data collected by the FSM NORMA national observer programme. There may be consideration for increasing the number of data entry staff in FSM, depending on the need for support/supervision and the general success of this initiative;
- In June 2011, one FSM NORMA observer was provided with a laptop containing the SPC-developed TUBs Observer database system and was trained to use this system. The observer is currently conducting a trial of data entry on-board a US purse seine vessel and will be specifically debriefed on his return to evaluate the success of this initiative. Further trials of on-board observer data processing are planned for the coming year.

## **Future expectations**

The data entry staff required to enter the significant increase in observer data collected throughout the region since January 2010 has only recently reached near full complement but there is now a significant backlog of observer data entry to cover. In the short term, the core SPC data entry staff (i.e. those staff not recruited for ROP data entry) will attempt to contribute to covering some of the backlog of purse seine observer data entry, but this will result in delays in the processing of other types of data (logsheets and port sampling data). At the current rate of processing, it may be at least another year before the backlog of purse seine observer data entry will be cleared, although the additional data entry burden that the implementation of 5% observer coverage in the longline fishery (January 2012) will bring has not yet been factored in.

SPC data management staff, including those not dedicated to observer data management, will continue to investigate options for distributing observer data entry in the coming year to the extent that resources (human and financial) are available, noting that on-site support, comprising an experienced observer coordinator and technical database person, is expected to be an essential requirement for these initiatives.

It is hoped that the problems in scanning and transmitting observer data to SPC/OFP and the WCPFC Secretariat (ROP data only) will continue to improve over the coming year.

## References

- Anonymous. 2010a. Report of the Seventh Regular Session of the Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean. 7–11 December 2010, Honolulu, Hawaii, USA. Western and Central Pacific Fisheries Commission, Pohnpei, Federated States of Micronesia.
- Anonymous. 2010b. Annual Report to the Commission – Regional Observer Programme. Meeting Document WCPFC7-2010/26. Seventh Regular Session of the Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean (WCPFC7). 7–11 December 2010, Honolulu, Hawaii, USA. Western and Central Pacific Fisheries Commission, Pohnpei, Federated States of Micronesia.
- Williams, P.G. 2011. Scientific data available to the Western and Central Pacific Fisheries Commission. Working Paper SC7 ST WP–1. Seventh Regular Session of the WCPFC Scientific Committee (SC7), 9–17 August 2011, Pohnpei, FSM. Oceanic Fisheries Programme, Secretariat of the Pacific Community, Noumea, New Caledonia.

## Tables and Figures

**Table 1. Provisional purse-seine observer trips undertaken in 2010, by major observer programme**

2010 Observer trips					
Observer Programme	(Estimated) Trips undertaken	Trip data received at SPC	%	Trip data not yet received	%
FSM	350	62	18%	288	82%
Kiribati	200	92	46%	108	54%
RMI	82	49	60%	33	40%
Nauru	5	5	100%	0	0%
PNG	400	300	75%	100	25%
Solomons	214	184	86%	30	14%
US MLT	285	179	63%	106	37%
FSM Arr.	221	146	66%	75	34%
<b>Total</b>	<b>1757</b>	<b>1017</b>	<b>58%</b>	<b>740</b>	<b>42%</b>

### Notes

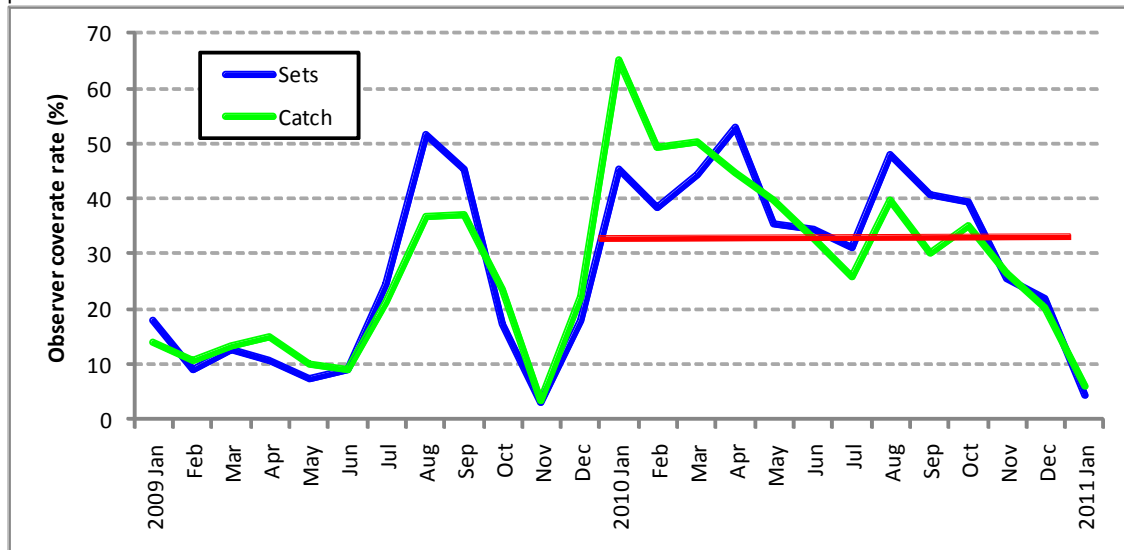
5. Values in red are approximate number of trips determined from anecdotal information.
6. Provisional values in blue are from Tim Park (pers. comm.)
7. Some of the FSM Arrangement trips may be counted in the national programme trips and the FSM Arrangement trips may not account for those FSM Arrangement vessels covered under the Regional Arrangement (RA) between RMI and FSM, for example.

**Table 2. Provisional purse-seine observer trips undertaken in 2010, by flag**

2010 Estimated PS trips			
Flag	Estimated trips	Obs. Trips (available data)	%
CN	89	46	52%
EC	10	7	70%
ES	13	13	100%
FM	60	34	57%
JP	267	107	40%
KI	25	10	40%
KR	380	175	46%
MH	80	24	30%
NZ	25	2	8%
PG	320	193	60%
PH	190	78	41%
SB	60	3	5%
SV	13	0	0%
TV	12	5	42%
TW	317	140	44%
US	310	173	56%
VU	32	7	22%
<b>TOTAL</b>	<b>2203</b>	<b>1017</b>	<b>46%</b>

**Notes**

1. "Estimated trips" are provisional and based on the best combination of available logsheet and VMS data for the WCPFC Convention Area. These values exclude the domestic fisheries of the Philippines and Indonesia, but include trips by the domestic fleets based in PNG and the Solomon Islands which fish in their archipelagic waters.
2. In some instances, trips identified in the VMS data where no fishing actually took place (e.g. returning to home port in Asia for annual maintenance) may have been included in the "Estimated" trips.
3. "Obs. Trips" represent the observer data provided to SPC as at 25<sup>th</sup> July 2011, although a number of these trips are not yet be processed.



**Figure 1. Coverage of purse seine observer data processed at SPC as at 4 July 2011, expressed as the percentage of observed to total sets (sets) and observed to total catch (catch).** Activities in archipelagic waters and in the domestic purse seine fisheries of Indonesia and Philippines are excluded. Observer data represent the data that have been processed only. **Red line** represents the average coverage of processed observer data for 2010, as at 4 July 2011 (32.2%).



**TECHNICAL AND COMPLIANCE COMMITTEE**  
**Seventh Regular Session**  
28 September - 4 October 2011  
Pohnpei, Federated States of Micronesia

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**ROP - Preliminary Trial of GEO EYE “Osprey Global Tracking Units)”**

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Introduction

The ROP Programme Coordinator had sent a few companies a request on what they may be able to supply on the requirements to collect observer data at sea and transmit it electronically back to a base on shore. Some of the companies just sent back brochures with price lists to purchase units if we wished to trial them. GeoEye<sup>3</sup> was the only company that responded by saying they would provide 3 units to trial free of charge. They also agreed to develop reporting software free of charge to enable observers to collect a trial set of 25 data fields. The units are capable of collecting a lot more data fields, but it was decided that for the trials 25 fields would be sufficient to assess it for real time reporting.

Two observers were selected with the assistance of the FSM ROP Coordinator from the FSM observer programme. Both observers were given a short training on how to operate the units and one was sent out on a vessel in May and the other in July. The third unit was taken by the VMS Manager to trial during his travels. The trial is in the very early stages and the response of one observer after one trip is all that is included in this report, as at the time of writing the other observer had not returned from his trip. The units will be sent out again to continue the trial. Refer to the Q&A table for comments on the use and monitoring of the Osprey unit by the observer and the ROP Data Quality Officer.

Besides the entry by observers and sending of the ROP data in near real time, the units have many features that would enhance the safety of any observer when on board a vessel.

There is potential for units like these to be able to allow observers to collect information and report it in near real time to a data base onshore, with the possibility that the data collected will do away with some paper reporting and observer data entry. The data currently goes into a secure trial data base set up on shore as the observer reports on the vessel. It is very early stages of the trials and results are preliminary and an early report on the trials and the units used are presented for your information. Some trial information is included for your interest in a Q&A Table, as well as Tables 1 and 2, with tracks shown in Figure 1- 2.

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<sup>3</sup> Website Comment - GeoEye-1 is the world's highest resolution and most accurate commercial Earth-imaging satellite; they operate two color Earth-imaging satellites, GeoEye-1 and IKONOS, and three airplanes with advanced high-resolution imagery collection capabilities.

### Q& A Interview with Observer on use of Geo-Eye, Osprey Unit.

Question	Answer
Did unit work ok during Trip	Worked ok! Took a little time to get used to entering data.
What problems did you have	1 <sup>st</sup> Trip took time to get used to entering data, also battery charger seemed to have problems as unit wasn't charging some times, Not sure if it was charger or the power source on the vessel. It took a couple of hours to charge properly
Did you use the unit all the time when on the trip	There was a couple of days I had problems with the charger that I didn't send any messages out.
Did screen size cause any problems	No it was ok, I could see everything ok, it would be nice to be a bit bigger but it was ok.
Did screen resolution cause any problems	Yellow on black was fine, I could see it all the time
Did screen resolution cause any problems in the bright sunshine	A little dull, but not really it was ok.
Did screen resolution cause any problems in the rain or when it got wet	Don't really know, didn't want the unit to get wet so didn't use it on deck when it was a wet situation, used it when off the deck and punched the info then.
How difficult was it to use the scroll down method in finding the correct info to send	It took time to get used to it, when I got used to it was pretty quick
Was it a nuisance having to hold it all the time when on deck	A little bit as I had other work to do I would need to put it down safely somewhere.
Did you have any problems getting a signal from the unit	Yes – 1 <sup>st</sup> problem was getting a signal for the unit, I found that there were only a couple of areas that I could get a decent signal – one was on top of the bridge – the other was in the middle of the back deck working area.
Did you have any problems sending the information out	Yes a little it took the unit about 5-7 minutes to send the information I had entered in the unit.
How long did it take to enter the data you wanted send out	A few seconds more or less depending on the information.
When did you send the signals out	Sometimes as soon as the event occurred, but a lot of the time I waited until the end of the set or when I was off the deck from other work and then sent the information.
You were only given about ½ days training, how long do you think we would need to train a person on the uses of this unit.	I would say 2-3 days training with lots of practical work; it took me a few days on board the vessel to get used to using the unit.
What improvements could be made	Definitely a keyboard as well as putting more data collection fields in the unit, there were times that it was frustrating not being able to enter some of the required data as the fields were not available in the unit. Catch data fields need to be more accurate to the ton and not the ranges as are in the unit now.

<b>Unit Review by Observers and WCPFC</b>	
Problems encountered in receiving signal	Unit did not send report due to heavy rain and heavy cloud cover according to observer. (Geo eye says that cloud cover has no bearing on fixing satellites)
Problems with information sent to WCPFC office	Sometimes the GPS readings between events were not the position when the event occurred. In some cases the Observer waited a while to get different data and then sent a number of activities together and the unit would read the GPS signal at that point and this would be sent as where all the activities occurred when in fact the activities may have occurred elsewhere. The Unit needs to be able to record the position at the time the activity was recorded and this be stored in the unit until the message or messages are sent.
Units of measurement used on the Osprey Tracking Device	Need to change measurement units used, for example, speed km/h to knots which are commonly used by VMS, observers and database. Also weight caught data fields need to be expanded.
Extended or wireless antenna	This needs to be included with all units as this will allow observers to continue to send in reports on the fishing operation from his working space (cabin)
Modification	There is a need to tidy up all the default reports in the unit to make it an Observer only type unit. Some reports are not relevant to observers.
Communication	Space for composing text message in viewpoint is too short (42 characters) and sometimes hard for observer to understand.

**Table 1 Activity codes used in the trial**

<b>Code</b>	<b>Activity</b>
<b>1</b>	Set
<b>2</b>	Searching
<b>3</b>	Transit
<b>4</b>	No fishing – Breakdown
<b>5</b>	No fishing - Bad weather
<b>6</b>	In port
<b>7</b>	Net cleaning set
<b>8</b>	Investigate free school
<b>9</b>	Investigate floating object
<b>10D</b>	Deploy Raft, Fad, Payao
<b>10R</b>	Retrieve Raft, FAD, Payao
<b>11</b>	No fishing – Drifting at day's end
<b>12</b>	No fishing – Drifting with floating object
<b>13</b>	No fishing – Other reason
<b>14</b>	Drifting with fish aggregating lights
<b>15R</b>	Retrieve – Radio or Satellite Beacon
<b>15D</b>	Deploy – Radio or Satellite Beacon
<b>16</b>	Transshipping or Bunkering

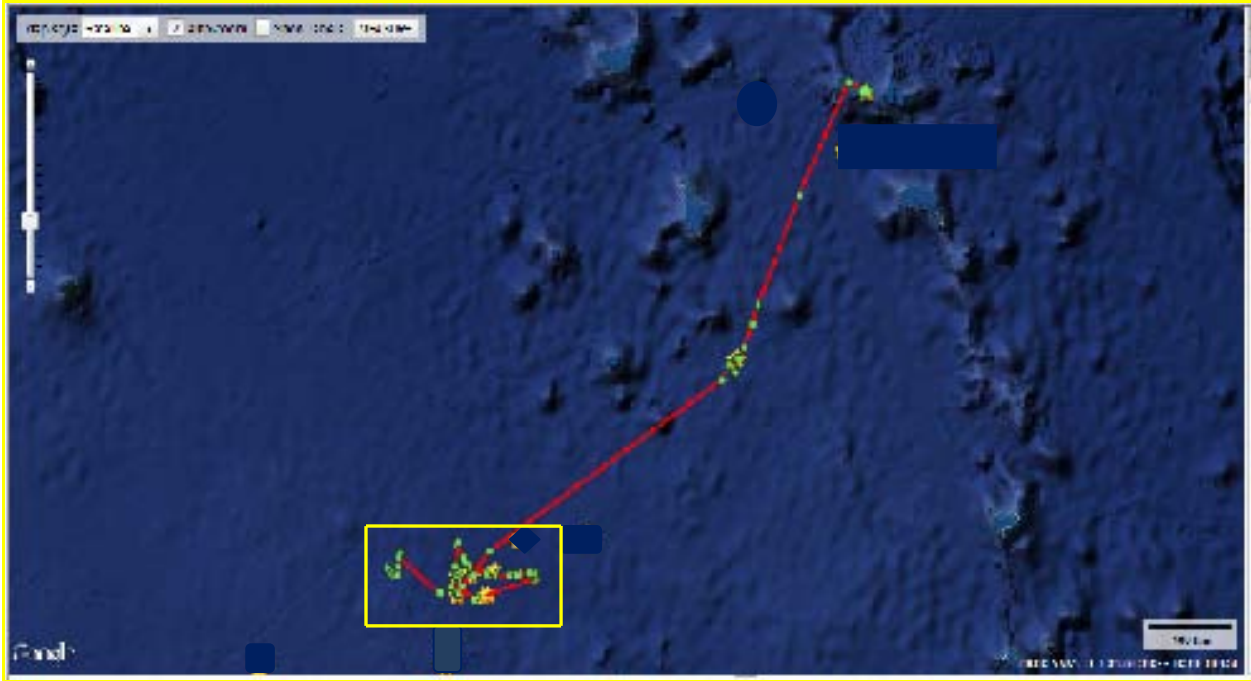
**Table 2 information received at WCPFC**

Snapshot of Data collected by Observer using Osprey Personal Tracking Devices				
Sent	Message	Activity Codes ( Refer Table 1	Position <sup>2</sup>	Date & Time
Ok	Message: Activity,	3		
Ok	Message: Activity,	2	1°xx'05"N 1xx°14'31"E	9/06/2011 2:41
Ok	Message: Activity,	2	0°xx'25"N 1xx°22'05"E	9/06/2011 3:35
Ok	Message: Activity,	2	0°xx'50"N 1xx°22'34"E	9/06/2011 3:36
Ok	Message: Activity,	2	0°xx'42"N 1xx°22'40"E	9/06/2011 3:38
Ok	Message: Activity,	2	0°xx'06"N 1xx°30'47"E	9/06/2011 5:55
Ok	Message: Activity,	2	0°xx'26"N 1xx°31'34"E	9/06/2011 5:56
Ok	Message: Activity,	9	0°xx'57"N 1xx°36'11"E	9/06/2011 5:58
Ok	Message: Activity,	8	0°xx'41"N 1xx°36'18"E	9/06/2011 6:03
Ok	Message: Activity,	2	0°xx'19"N 1xx°36'58"E	9/06/2011 6:10
Ok	Message: Activity,	9	0°xx'47"N 1xx°45'34"E	9/06/2011 6:11
Ok	Message: Activity,	2	0°xx'20"N 1xx°46'00"E	9/06/2011 6:12
Ok	Message: Activity,	2	0°xx'27"S 1xx°15'24"E	9/06/2011 19:19
Ok	Message: Activity,	9	0°xx'49"S 1xx°12'00"E	9/06/2011 19:21
Ok	Message: Start SET	1	0°xx'08"S 1xx°11'19"E	9/06/2011 19:24
Ok	Message: End SET	1	0°xx'32"S 1xx°09'53"E	9/06/2011 23:17
Ok	Message: Activity,	2	0°xx'32"S 1xx°09'53"E	9/06/2011 23:19
Ok	Message: Retained Catch: 25-49MT		0°xx'32"S 1xx°09'53"E	9/06/2011 23:20
Ok	Message: Weight Skipjack,: 25-49MT		0°xx'40"S 1xx°10'35"E	9/06/2011 23:22
Ok	Message: Activity	2	0°xx'13"S 1x°16'33"E	9/06/2011 23:17
Ok	Message: Activity	8	0°xx'52"S 1xx°36'12"E	10/06/2011 1:09
Ok	Message: Activity	2	0°xx'43"S 1xx°35'49"E	10/06/2011 1:14
Ok	Message: Activity	2	0°xx'08"S 1xx°05'06"E	10/06/2011 4:01
Ok	Message: Activity	2	0°xx'03"S 1xx°05'27"E	10/06/2011 19:11
Ok	Message: Activity	2	0°xx'19"S 1xx°31'34"E	10/06/2011 19:13
Ok	Message: Start SET	9	0°xx'10"S 1xx°34'56"E	10/06/2011 19:15
Ok	Message: Start SET	1	0°xx'16"S 1xx°34'50"E	10/06/2011 19:16
Ok	Message: Activity,	1	0°xx'20"S 1xx°34'52"E	10/06/2011 19:19
Ok	Message: End SET	1	0°xx'03"S 1xx°33'58"E	10/06/2011 21:57
Ok	Message: Activity,	2	0°xx'03"S 1xx°33'58"E	10/06/2011 21:57
Ok	Message: Retained Catch SKJ 25-49MT		0°xx'02"S 1xx°33'54"E	10/06/2011 21:58
Ok	Message: Activity	16	0°xx'17"S 1xx°19'29"E	10/06/2011 23:21
Ok	Message: Fuel Point		0°xx'17"S 1xx°19'29"E	10/06/2011 23:21
Ok	Message: Activity,	2	0°xx'11"S 1xx°19'29"E	10/06/2011 23:32
Ok	Message: Activity,	2	0°xx'52"S 1xx°18'49"E	11/06/2011 4:37
Ok	Message: Activity,	2	0°xx'52"S 1xx°18'49"E	11/06/2011 4:39
Ok	Message: Activity,	6	0°xx'37"S 1xx°19'16"E	11/06/2011 4:40
Ok	Message: Activity,	2	0°xx'37"S 1xx°19'16"E	11/06/2011 4:42
Ok	Message: Activity,	9	0°xx'37"S 1xx°19'16"E	11/06/2011 4:22
Ok	Message: Activity,	2	0°xx'10"N 1xx°44'39"E	11/06/2011 4:34
Ok	Message: Activity,	14	0°xx'03"N 1xx°47'30"E	11/06/2011 18:58

<sup>1</sup> Positions blocked out for display purposes

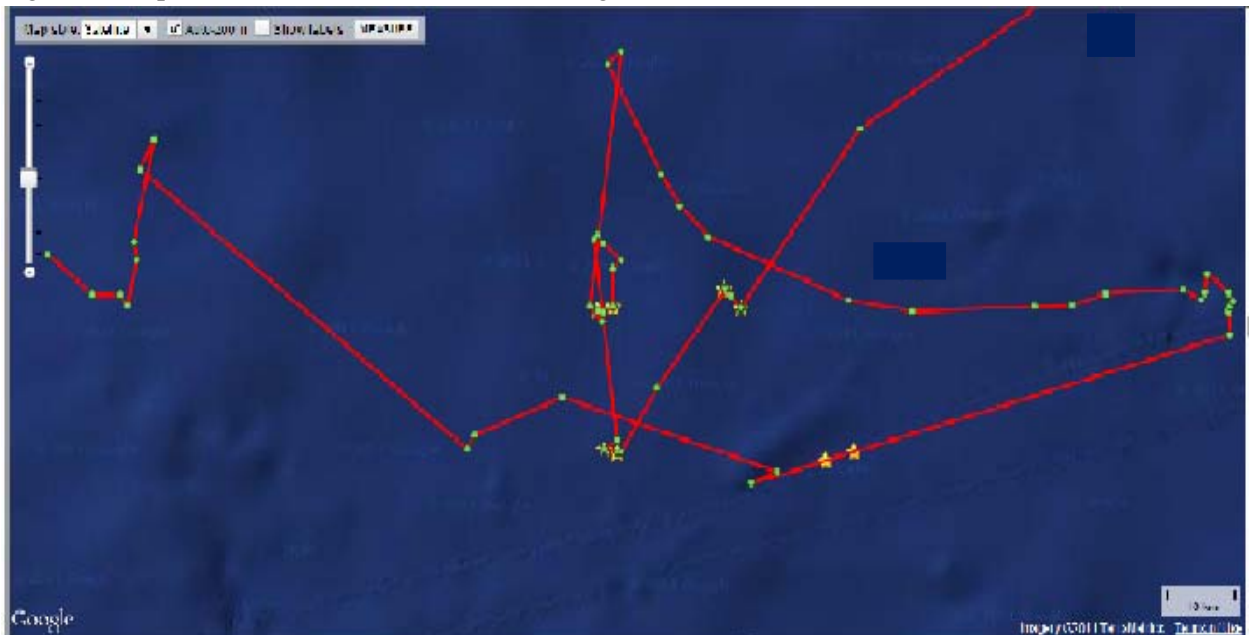


Figure 1- Observer Track



Track of observer (Red) trialing the osprey units,  
Green dots represent reports made by the observer yellow marks are sets made.

Figure 2- Expanded view of bottom of track in figure 1



Green dots represent reports that activity occurred and reports made by the observer, yellow marks are sets made.

# Osprey Personal Tracker

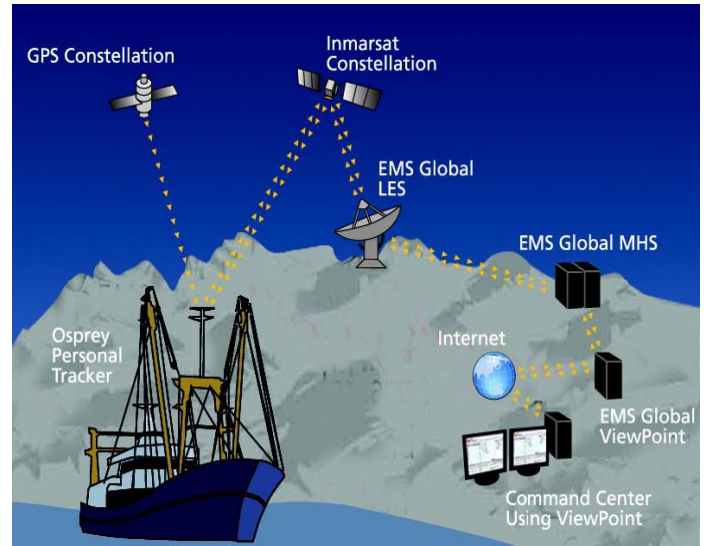
World Wide Vessel Tracking and Messaging System

## Track your fleet and communicate.

The *Osprey* personal GPS tracker is an integrated, portable and cost-effective terminal for tracking and communicating with your vessels fleet or remote personnel anywhere in the world. *Osprey* features a two-way messaging and emergency alerting system that allows organizations to track, communicate with and effectively manage their resources.

### Key Benefits

- robust and lightweight device suitable for long-term use in virtually any environment
- automated GPS reporting intervals
- 2-way messaging and remote unit configuration
- near global coverage via *Inmarsat* satellites
- emergency panic button
- intuitive menu navigation
- Self-contained unit with integrated battery
- geofence areas easily designated
- Over-the-air system upgrades
- Terminal-to-terminal communication
- Handheld or vessel mounted options
- Web-based tracking control center
- audible alarm



inu

*Osprey* uses the global *Inmarsat Isatm2m* network to locate and communicate with your assets worldwide.



The *Osprey* personal tracker can be managed with *Viewpoint*, a web-based management application that provides detailed mapping and allows remote configuration and management of the tracking devices. *ViewPoint* is an advanced, easy-to-use, web-based application that provides control centers with visibility and communication to remote individuals or fleets from any desktop location.

## Specifications

### CAPABILITIES

- ▶ Worldwide two-way tracking and messaging
- ▶ 50 channel GPS
- ▶ Dedicated panic button

### SATELLITE COMMUNICATIONS

- ▶ Antennas: GPS and RF
- ▶ Accuracy:  $\pm 2.5m$
- ▶ Alert Acknowledge Latency:  $\sim 60$  seconds
- ▶ Data Format: Encrypted

### DEVICE INTERFACES

- ▶ External power
- ▶ Remote antenna and mounting kit (Optional)

### OPERATIONAL

- ▶ Activation: One-hand gloved operation, left or right
- ▶ Controls: Power, Menu, Point of Interest and Panic buttons
- ▶ Displays: Location and status information

### ENVIRONMENTAL

- ▶ Depth: Waterproof to 1m (3.28 feet)
- ▶ Operating Temperature Range:  $-20^{\circ}C$  to  $+55^{\circ}C$  ( $-4F$  to  $+131F$ )
- ▶ Built-in Test: Functional test with pass/fail indicators
- ▶ Storage Temperature:  $-40^{\circ}C$  to  $+70^{\circ}C$  ( $-40F$  to  $+158F$ )

### CONSTRUCTION

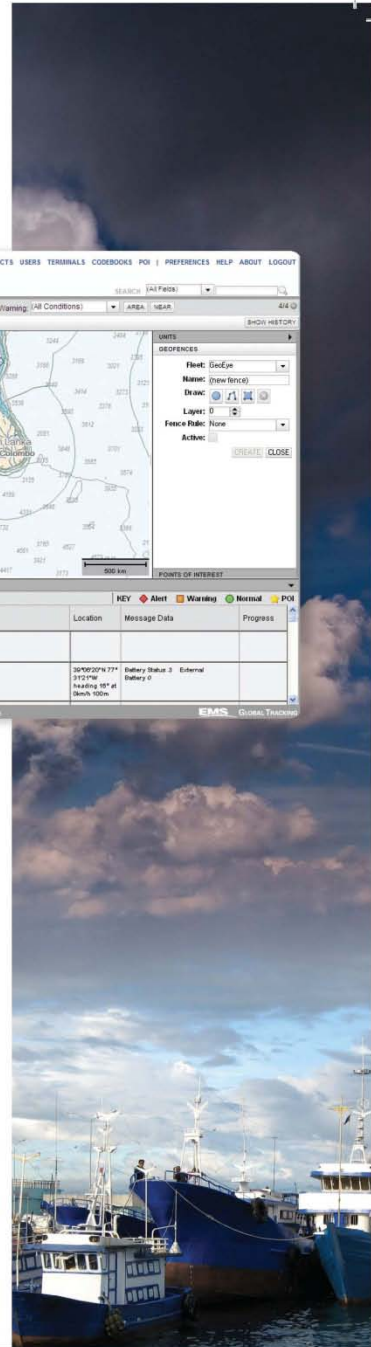
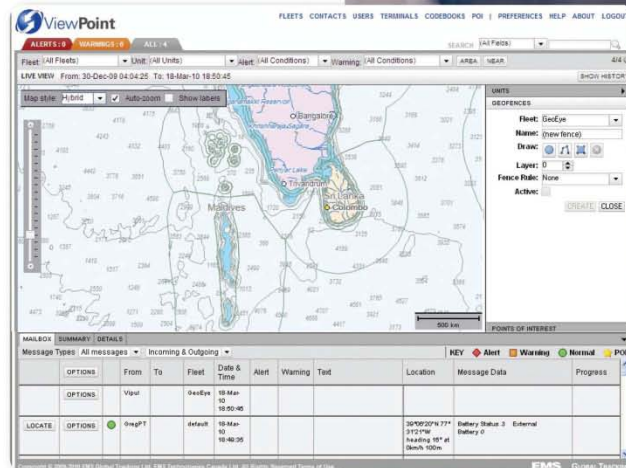
- ▶ Material: Aluminum and PVC
- ▶ Color: High-visibility Yellow
- ▶ Weight: 350g (12.34 oz.) including batteries
- ▶ Dimensions: 180 x 85 x 40mm (7.0" x 3.3" x 1.6")

### BATTERIES

- ▶ Type: Rechargeable Li-ion battery pack
- ▶ Battery Life: 10 days (reporting every 60 minutes)

## Further Information

For further information about the *Osprey Personal Tracker*, contact SeaStar Marketing & Sales at +1.703.480.7538, email [seastar@geoeye.com](mailto:seastar@geoeye.com) or visit our website at [www.geoeye.com/seastar](http://www.geoeye.com/seastar).



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