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SUPPORTING PAPER FOR DISCUSSIONS ON OBSERVER SAFETY

**WCPFC12-2015-11
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Introduction

1. Observer safety has been a priority issue for the Commission from the early years of the development of the Regional Observer Programme (ROP), and has been a topic of discussion during past TCC meetings and the four meetings of the Intersessional Working Group on the ROP (IWG-ROP). The inclusion of an agenda item on Observer Safety and Security for WCPFC12 was at the request of two Members who expressed their view that developing mechanisms to ensure the health, well-being and safety of fisheries observers as they carry out their duties is of utmost importance.
2. This paper has been prepared with a view to supporting discussions and providing some suggested ways forward on approaches for addressing observer safety and security during WCPFC12.

Background

3. The Regional Observer Programme was established pursuant to Article 28 of the WCPF Convention. The objectives of the Commission ROP is stated in the operative conservation and management measure for the ROP (CMM 2007-01) which shall be “to collect verified catch data, other scientific data, and additional information related to the fishery from the Convention Area and to monitor the implementation of the conservation and management measures adopted by the Commission.”
4. The Commission ROP consists of independent and impartial observers qualified in accordance with WCPFC standards. As a guiding principle, and to ensure cost-effectiveness and avoid duplication, the Commission ROP is coordinated to the maximum extent possible, with other regional, subregional and national observer programmes. The Secretariat has a role in undertaking regular audits to ensure that a national or subregional observer programme is in compliance with the WCPFC Minimum Standards of the Regional Observer Programme.
5. Through the IWG-ROP, the Commission has established a number of guidelines and standards related to observer safety and they have been approved as part of the Minimum Commission standards for ROP observer programmes. The current version of the WCPFC Minimum Standards of the Regional Observer Programme includes the following standards related to observer safety:

- a. **Sea-safety:** The standard for “Sea - Safety” is that all ROP observers must undergo training in sea safety and emergency procedures, and that such training procedures be made available to the Secretariat.
- b. **Vessel safety:** 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 at the ROP-IWG3.
- c. **Communications:** The standard for “Communications” is that observers have access to appropriate communication facilities, including emergency communication facilities while on board a vessel.
- d. **Insurance and liability:** 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.

Notes on recent events, WCPFC discussions and proposals on observer safety

6. At the TCC11, WWF raised the issue of Observer Safety and Security during deployment, noting the need for greater protections for observers when they are doing the job they have been asked to do, adding that the quality and integrity of information they provide is vital for the Commission’s work ensuring sustainability of stocks. WWF noted that on 10 September 2015 an observer with MRAG Americas, Keith Davis, went missing during a transshipment of the MV Victoria 168, a transshipment vessel flagged to Panama. Both vessels were registered to fish in the WCPFC. It should be noted that the event did not occur in the WCPF Convention Area or as a result of WCPFC origin activities. WWF proposed that the Commission should consider taking steps including:
 - a. A requirement that all member states regularly report to the WCPFC Secretariat, in a standard format, any event involving threat, intimidation, harassment, or assault of observers that occurs in any ROP or national programme.
 - b. A requirement for immediate reporting (to the Secretariat) in a standard format the disappearance of ANY observer or crewmember;
 - c. Inclusion in the ROP Annual Report of a summary of reported incidents at a. and b; and
 - d. Arrangements to ensure that all observers are issued with a fully functional two way satellite communicators that they would carry on their person when at sea.
7. During TCC11 multiple CCM delegates agreed with the importance of the matters raised by WWF. Prior to WCPFC12, WCPFC Secretariat received a request from two CCMs that the matter of observer safety needed to be included as a priority item on the WCPFC12 agenda.

Expanded and strengthening the observer safety provisions in the WCPFC Minimum standards of the Regional Observer Programme

8. There is scope to expand and strengthen the WCPFC Minimum Standards of the Regional Observer Programme to take advantage of currently available technological solutions and provide better assurance for observer safety and security. Technology is currently available that could allow observers to have a personal electronic device which offers a primary source of direct independent communications between the observer provider and observers on board the vessels. Many of the devices also operate as a waterproof location device in cases of an accidental overboard situation. If desirable, the device could also be used by the observer as a mechanism to

make regular weekly reports. Many ROP observer providers are already utilizing or considering issuance of such devices as a response to observer safety concerns as well as part of electronic-reporting initiatives. The Secretariat provides for information **Annex 1** containing some information related to indicative costs and information on currently available technological solution options.

9. With the acceptance of the use of personal communicators for observers other requirements will need to be considered such as a protocol that requires that the observer provider has developed an approved “Emergency Action Plan” (EAP) that details observer programme/provider response to emergencies involving observers. Without an EAP it is pointless to issue observers two way communication devices because there is no clear directive for responsibilities of the various parties in the event of an emergency. Therefore, an additional minimum standard is required to ensure that an EAP is in place for each ROP.
10. It is proposed that the following two new minimum standards are included in the WCPFC Minimum Standards of the Regional Observer Programme:

<p>Item: Observer safety at sea</p> <p>Each ROP authorised observer programme shall ensure that observers from their programme will be provided before any boarding for a trip,</p> <ul style="list-style-type: none"> • An approved independent two way communication satellite device; and • A waterproof personal lifesaving beacon.” <p>*Noting that this may consist of a single device such as “Satellite Emergency Notification Device” or it may be a combination of an independent satellite-based system such as a Sat phone plus a portable lifesaving beacon (PLB).”</p> <p>A suggested time frame to allow programmes to accommodate this standard shall be “achieved as soon as practical but no later than [Jan 1st 2017]</p>
<p>Item: Emergency Action Plan for Observer Safety</p> <p>Each CCM with an ROP authorised observer programme will ensure that they have an “Emergency Action Plan” (EAP) in place to accommodate any reported observer emergency including interference, harassment, intimidation and other personal safety issues.</p> <p>The EAP must include communications protocol and appropriate contact information in an emergency and as a minimum will include.</p> <ul style="list-style-type: none"> • When to report: (Generally, observers should be required to report any instance of interference, harassment, intimidation, or assault as outlined in ROP training.) • Who to report to: (Observer programmes must have a “Designated Officer/s” who is responsible for maintaining a device capable of receiving a signal from the approved independent two-way satellite communication device.) • Follow up responses: (Observer programme must have an established procedure to initiate contact with the observer, the vessel, and, if necessary, the appropriate enforcement authority; this procedure must also include clear procedures that must be taken in the event of various emergencies. • Remedial action; (Observer programme must establish appropriate measures for addressing violations made against observers. Measures should include a schedule of fines, and/or other punitive measures against captains or crew found to be guilty.) • Completing the EAP protocols for observer related incident involving observer reporting of Interference Harassment, Intimidation must be resolved through a legal or nationally recognized procedure.

Role for Observer Providers

11. The National and Sub Regional observers programmes authorised to be part of the ROP have been created objectively to assist in the management of resources in the Western Central Pacific. As part of this responsibility of running and maintaining an observer programme, the observer employers/providers must support observers in their ability to carry out these duties.
12. Observers are vulnerable to interference, harassment, intimidation, and, in the worst case, assault, often for simply trying to do their jobs. These are not acceptable conditions of being employed as an observer. Employers/providers and authorities must address alleged violations reported by observers quickly and effectively. To ensure observer confidence in carrying out their roles on board a vessel they must be well-informed of their rights and be aware that a process is in place to handle any reports they may make, especially on instances of harassment, intimidation, or assault. When national or sub regional programmes fail to address these alleged violations reported by observers, it signals to observer that providers either do not care or are incapable of providing support for their welfare. Failure of providers or the national authorities to act on a report has an additional effect of signaling to vessel captains and crew that they can continue to harass and intimidate observers without retribution.

Improving regular reporting to the Commission of incidents related to observer safety

13. The Commission has received a recommendation from the IWG-ROP4 to establish a pre-notification process from observer providers to flag CCMs of possible alleged infringements by their vessels (WCPFC12-2015-21b). This process relates to the WCPFC observer trip monitoring summary (which many programmes call a GEN-3 Form) and proposes a process for earlier notification from the observer provider to the flag State of the GEN-3 Form or observer trip monitoring summary via the Secretariat.
14. Of relevance to observer safety the GEN-3 Form or observer trip monitoring summary includes three questions that will be completed by the observer for each trip:
 - a. Did the vessel crew request that an event not be reported by the observer? (Yes No)
 - b. Did the operator or any crew member assault, obstruct, resist, delay, refuse boarding to, intimidate or interfere with observers in the performance of their duties? (Yes No)
 - c. Did the operator fail to provide the observer, while on board the vessel, at no expense to the observer or the observer's government, with food, accommodation and medical facilities of a reasonable standard equivalent to those normally available and medical facilities of a reasonable standard equivalent to those normally available to an officer on board the vessel? (Yes No)
15. In addition, the proposed process makes it very clear that in considering the timeliness of the submission of the GEN-3 Form or observer trip monitoring summary, the observer provider must ensure the observer is safely disembarked from the vessel and has returned to their home port, and where possible the observer has been fully debriefed. The observer provider may decide that further investigation of a "YES" noted in the WCPFC Observer Trip Monitoring Summary, or ROP minimum data elements which are included in SPC/FFA General Form 3 (or equivalent) is needed before the relevant data is submitted to the Commission Secretariat.
16. A "YES" to any or all of these questions on a GEN-3 Form or observer trip monitoring summary, is considered under the compliance monitoring process to be a potential alleged incident of non-compliance. The Secretariat currently has a compliance case system under development to allow

the Secretariat to track the results of investigations related to each trip, each vessel and each observer, by relevant CCMs as part of the WCPFC integrated Information Management System at the Secretariat.

Closer monitoring of high seas transshipment activities and associated ROP placements:

17. Noting the recent tragic incident occurrence in the IATTC Convention Area on board a high seas transshipment carrier, the Commission may be interested in considering the establishment of arrangements that would provide closer monitoring via the Secretariat of high seas transshipment activities and the associated ROP observer activities.
18. The Commission has received a recommendation from the IWG-ROP4 to adopt proposed amendments to CMM 2009-06 to establish additional reporting requirements for carrier vessels operating in the Convention Area, particularly those involved in high seas transshipments (WCPFC12-2015-21a). Of relevance to observer safety, the proposal includes regular reporting by carrier vessels while in the Convention Area of their intended destination and activities, as well as observer details. This proposal has the potential for improving the capability of the Secretariat to be monitoring ROP observer placements on carriers, which could assist with observer safety and security.
19. The contribution of this proposal to better supporting observer safety could be further enhanced through the implementation of the proposed minimum standard for observer safety outlined above, and through the establishment of data sharing arrangements between relevant ROP observer providers to enable the Secretariat to receive a copy of position data from each carrier's ROP observers independent satellite-based system.
20. If such an approach to enhance high seas transshipment monitoring is seen to have merit, the Secretariat could be tasked with working with the relevant ROP observer providers involved in placement of ROP observers on carriers, to develop a proposal towards assisting the relevant ROP observer providers with issuance of ROP observers independent satellite-based system units for all ROP observers on carriers operating in the WCPF Convention Area, and for some sort of cost-sharing arrangement for necessary communication costs.

Ways that the Secretariat can provide support to observer programmes and observers

21. *Advice and support to programmes:* The Secretariat can provide advice to national and subregional programmes on the various technological options for meeting the proposed observer safety at sea requirements and likely costs. Advice can also be provided on the establishment of Emergency Action Protocols for Observer Programmes, and related training activities related to observer safety. The Secretariat provides for information **Annex 1** containing some information related to indicative costs and information on currently available technological solution options.
22. *Support to safety at sea operations:* The Secretariat can assist in a number of ways during safety of life at sea incidents. By observer providers informing the Commission Secretariat, the Secretariat may then use WCPFC Official contacts to alert relevant search and rescue agencies as well as relevant national fisheries contacts that there is an overboard situation. Additionally there is scope within the *2007 Rules and Procedures for Protection, Access to, Dissemination of Data Compiled by the Commission* for the Executive Director to authorise the release of Non-Public Domain data to rescue agencies in cases of force majeure in which the safety of life at sea is at risk (paragraph 32).

23. *Annual Reporting on observer safety and security matters pertaining to the WCPFC Regional Observer Programme:* The Secretariat's Annual Report on the ROP, does include annual report on matters of observer safety and security, this could be expanded to provide a summary based on the regular reporting mechanism outlined above as well as any safety of life at sea incidents.
24. *Potential disbursement of funds to assist Pacific Islands and other developing countries to strengthen and improve their capability in the areas of observer safety and security of their national observer programmes:* There is scope within the purposes of the Commissions Special Requirements Fund established under Article 30 of the Convention, and similar voluntary contribution funds, for priority to be given to the delivery of necessary assistance for strengthening capabilities of national observer programmes in the of observer safety and security.

Recommendation

25. The Commission is invited to:
- a. Adopt the proposed two new minimum standards for “Observer safety at sea” and “Emergency Action Plan” be included in the WCPFC Minimum Standards of the Regional Observer Programme as is proposed in paragraph 10 with an implementation date of no later than 1 January 2017.
 - b. Consider ways of strengthening the two proposals recommended by the IWG-ROP4 related to pre-notification process from observer providers (WCPFC12-2015-19b) and additional reporting requirements for carrier vessels operating in the Convention Area (WCPFC12-2015-19a) to complement and enhance efforts to provide better support to observer safety and security.
 - c. Support the strengthening of the reporting mechanisms within the Commission and among CCMs regarding instances of interference, intimidation, threats, assault, or disappearance of observers.
 - d. Task the Secretariat to intensify its support to national observer programmes to strengthen and enhance their capability in the areas of observer safety and security, including in support to safety at sea operations.

Annex 1

Consideration of Estimated Costs and information on some currently available technological solutions for supporting observer safety and security

Estimated costs of purchasing and maintaining the devices as well as communication costs will need to be considered in all National and Sub Regional Observer Budgets. As an initial incentive the Commission may make funds available to assist Small island Developing States to initiate the purchasing of some units

The tables below list some of the costs of units available there are others that could be considered, however it is believed that the tables cover the cost ranges available, all mechanisms have different specifications and abilities and therefore a table of unit specifications is included for the brands of the devices listed in the cost tables.

There are three types' devices that can be considered, however it is suggested that the best mechanisms should be considered should have the ability to send and receive text message via available satellite systems. Satellite phones can do this and have the added advantage of being able to be used for voice transmission unfortunately these systems are extremely expensive and they generally they are not waterproof and do not have global personal life beacon ability, therefore a personal life beacon would be required to accompany a satellite phone system to cover all observer safety concerns.

There have been recently developed Satellite Emergency Notification Devices that have text capabilities and also have capabilities to act as a personal life beacon for any over board situations. These units are relatively small and also are waterproof so they are able to be carried by an observer at all time during his/her duties on a vessel. Some of these devices are limited to only being able to send text one way however there is one unit that has the capabilities to send and receive text messages. There may be others available on the markets now or in the future, but costs would probably be similar to what is projected in the tables.

Cost to be considered when providing budget figures for the first phase of implementing the use of Satellite Emergency Notification Devices

- Number of Units required by each programme
- Cost of approved device
- Communication Costs
- Administration costs

Future budget costs

- Replacement costs. (*Probably every 4-5years*)
- Ongoing communication and Administration costs

Table 1 is produced to give an estimate to the number of units that will be required to be distributed around the Regional Observer Programmes (ROP) in the SIDS countries, as they carry out the bulk of observer coverage, other developed countries can use these figures to estimate the costs they will need to also provide devices to their observers. It should be noted that a couple SIDS observer programmes and a few developed observer countries already have devices for their observer. Whilst the minimum standards decided for ROP programmes on “Observer Safety” will apply to all ROP programmes however the make or type of devices in use by programmes will be up to them providing they meet the minimum standards agreed upon.

Table 1: Number of Units estimated to be needed to cover all observer coverage at any one time

Item	Purse Seine	Longline and pole and line	Transshipment
Number of Vessels requiring observers at any one time	230	LL - 75 PL - 5	10
Per Cent Observer Coverage	100%	5%	100%
Number of units estimated required to ensure all Pacific programmes have adequate device on hand to deploy observers safely.			450

Table 2 and 2a shows a range of specifications and cost estimates for a Satellite Emergency Notification Device, these devices have the suitability to be able to be used as a means to send text messages regarding any issues the observer may wish to report. Some only can send messages and are not capable of receiving any return text message where as one in this list has the ability to send and return messages. It should also be noted that linking these devices to Electronic Recording tablets will in most cases enable data to be sent using the communication ability of these devices. For a light one piece unit that can be used to send text and also backs up as a personal life buoy these type of unit are the recommended units by a number of observer programmes.

Table 2 Estimated Satellite Emergency Notification Device Costs for the WCPO

Unit Type	inReach Explorer	ACR ResQlink	SPOT 3
Communication Ability	Two way Text Send and Reply	Communication Ability Send only No reply	Two way Text Send only No Reply
Individual Unit Price	\$360	\$280	\$150
Total Capital Costs	\$162000	\$126,000	\$67500
Total Annual Operating Costs	\$65,250	\$0	\$67500
Administration costs across SIDS programmes	\$24,000	\$24,000	\$24000
Total Costs for first year	\$251250	\$150,000	\$159,000
Total Costs for second year	\$89,250	\$24,000	\$91500
Total 5-Year Costs	\$608250	\$246,000	\$525,000

Table 2a Estimated Satellite Emergency Notification Device specification comparison




Product Name	 DeLorme InReach Explorer	 ACR ResQlink 406 Personal Locator Beacon	 SPOT 3 Satellite Messenger
Price	\$360 - \$380	\$280 - \$330	\$150
Pros	Easy one-handed SOS operation. Excellent two-way messaging. Smartphone interface capable. Intuitive and easy to use. Water Resistant.	Five-watt transmission power, dual frequency SOS transmission, COSPAS/SARSAT's reliability and long track record, no annual fees. Water resistant.	Compact and lightweight ergonomic design, good value. Water resistant.
Cons	Expensive. Larger than some other units. Needs clear view of sky to function properly.	Lack of two way messaging capability, functions best with clear view to sky.	No two-way communication, no smartphone interface, low 0.4 watt transmission power, Globalstar satellite constellation is arguably less effective than Iridium or COSPAS/SARSAT. Needs clear view of the sky to function properly.
Dimensions (in./cm)	7 cm x 2.5 cm x 8.1 cm	9.9 x 4.8 x 3.3 cm	8.7 x 6.5 x 2.5 cm
Weight w/ batts oz/g	198g	130g	114g
Battery Life (hours)	100 hours (lithium polymer battery)	5 year lifecycle (30hrs on SOS)	150 hrs (lithium batteries)
Waterproof Rating	IP67 waterproof; 1 m at 30 minutes	5 m at 1 hour, 10 m at 10 minutes	IPX7 waterproof: 1 m at 30 minutes
Pair with smartphone?	Yes	No	No
Minimum Annual Subscription	\$145	\$0	\$150
Satellite Network	100% global coverage via Iridium	COMSAT	Globalstar
Transmission power	2,450 mAh capacity at 3.7 V	5 watts	N/A
2-way messaging	Yes (send and receive)	No; send only.	No; send only.

Table 3 and 3a shows the cost and specifications of a small range of Satellite phones this technology has been around for quite a while and enable observers to talk and or send text messages, whilst these are good onboard communication system they generally do not have Personal life Beacon capabilities if an observer goes overboard, they are also expensive to purchase and yearly communication costs can be high.

Table 3 Estimated Satellite phone costs

Sat Phone Unit Type	Iridium Extreme	IsatPhone Pro	Globalstar
Communication Ability	Two way Voice and Text	Two way Voice and Text	Two way Voice and Text
Individual Unit Price	\$1295	\$599	\$499
Total Capital Costs	\$582750	\$269550	\$224550
Total Annual Operating Costs	\$312,750	\$215,550	\$215,550
Administration costs across SIDS programmes	\$24,000	\$24,000	\$24,000
Total Costs for first year	\$919500	\$509100	\$464100
Total Costs for second year	\$336750	\$239550	\$239550
Total 5-Year Costs	\$2,226500	\$1,467300	\$1,422300

Table 3a Satellite phone specification comparisons

			
	Iridium Extreme	IsatPhone Pro	Globalstar GSP-1700 (SPOT)
Price	\$1,295	\$599	\$499
Coverage	Global	Global (Minus Poles)	Regional
Weight	247g	279g	200g
Size	140x60x27mm	170x54x39mm	135x56x38mm
Battery Life	4hr talk / 30hrs standby	8hr talk / 100hr standby	4hr talk / 36 standby
Antenna	Retractable omni-directional	Fold-out directional	Fold-out directional
Display	Monochrome	Color	Color
Durability	MIL-STD 810F	N/A	N/A
Waterproof	IP65	IP54	N/A
Network	66 LEO satellites	3 Geostationary satellites	40 Orbiting Satellites
Text Messaging (SMS)	Supported	Supported	35 Character Receive Only
GPS	Yes	Yes	Yes - During Call
Interfaces	Mini USB, Audio	Micro USB, Bluetooth	Mini USB, Audio
Data Connectivity	Yes, via USB or AxxessPoint	Yes, via USB or AxxessPoint	Yes, via USB or AxxessPoint
Data Speed (Uncompressed)	2.4 Kbps SLOW	2.4 Kbps SLOW	9.6 Kbps SLOW
Emergency SOS	Yes	NO	NO
Minimum Annual Subscription	\$695/300 minutes	\$479/10 minutes per month	\$300/120 minutes

Table 4 & 4a shows the cost and specifications of Personal Life Beacons these are beacons that are used only in emergency situations and do not have any communication costs; there is no communication ability other than when turned on the beacon should transmit an emergency signal giving location to a few metres. These types of units have been around for many years and there are many brands with different specifications, the table shows only 3 types to give a range of costs.

Table 4 Standard Distress Beacon

Personal Life Beacon (PLB.)	Crewsafe V100	Smartfind S20	FAST FIND MAX-G
Communication Ability.	Position only	Position only	Position only
Individual Unit Price	\$150	\$250	\$499
Total Capital Cost	\$67500	\$112500	\$224550
Total Minimum Annual Operating Costs	0	0	0
Administration costs across SIDS programmes	\$24,000	\$24,000	\$24,000
Total Costs for first year	\$91500	\$136500	\$248500
Total Costs for second year	\$24000	\$24000	\$24000
Total 5-Year Costs	\$187500	\$232500	\$344500

Table 4a Standard Distress Beacon specification comparisons

			
Unit	Crewsafe V100	Smartfind S20	FAST FIND MAX-G
Unit Type	DSC	Personal AIS Transponder	406/121.5MHz PLB
Price	\$150	\$250	\$499
Range	2 -10 nm	4 nm	Global
Weight	153g	120g	300g
Size	120x78x30 mm	124x47x27mm	146x78x38mm
Operating Time	Min 12 hours at -10C	24+ hours	48+ hours
Battery Life	5 years	7 years	5 years
Durability	IEC Standard 60945	IEC 61097	N/A
Waterproof	IP68; 10m at 5 minutes	5m	Waterproof to 38 feet
Network	VHF	AIS Only	406/121.5MHz; LEO Satellite
Flotation	Yes	Yes	Yes
Strobe	Yes	Yes	No
Automatic Activation	Yes; water activated	Yes; PFD inflation activated	No.
Manual Activation	Yes; slide switch	Yes; pull tab.	Yes; push button
Power	1 Watt	2 Watts	5 Watts
Transmission Costs	\$0	\$0	\$0
