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FAD DATA TO BE PROVIDED BY OBSERVERS

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Paper by the Parties to the Nauru Agreement

ABSTRACT

This paper proposes revisions to the WCPFC ROP Minimum Standard Data Fields to reflect the decision of WCPFC12 that vessel operators should provide data on FAD design and construction and FAD activity (deploying, retrieving, setting, visiting, loss etc), and the FAD Management Options – Intersessional Working Group recommendation that data collected by observers on FADs can be used for verification of FAD activities of vessels. The same paper was provided to SC13, which supported the recommendations below.

Introduction

1. This paper was first prepared for SC13 as a contribution to discussion on the SC Agenda item 3.3.1: Review Of ROP Minimum Standards Data Fields where it was planned that “*SC13 will review any new proposals to revise the ROP Minimum Data Standard Data Fields.*”
2. After discussion at SC13, the paper has now been revised as a contribution to TCC Agenda 10.1 (b) *Collection of additional data on FADs and their use in WCPO fisheries*, where the Annotated TCC Agenda notes the FAD IWG recommendation “*that the issue of data to be provided by observers be referred to SC13 and TCC13, and CCMs were encouraged to provide delegation papers on this aspect.*”
3. The proposed revisions arise from the WCPFC12 decision to transfer the primary responsibility for the provision of certain data on FADs from observers to vessel operators, with data on FADs provided by observers, being required for verification of FAD activities.
4. The current text of the ROP Minimum Data Standard Data Fields can be found at: <https://www.wcpfc.int/doc/table-rop-data-fields-including-instructions>

Background

5. At its 1st meeting in Bali, Indonesia in November 2015, the FAD Management Options – Intersessional Working Group (FADMgmtOptions-IWG) recommended that:
vessel operators provide data on FADs covering 2 major areas:
 - a. *FAD design and construction of FAD to be deployed or encountered (materials, electronics, size etc.)*
 - b. *FAD activity (deploying, retrieving, setting, visiting, loss etc.)*and that:
Data collected by observers on FADs can be used for verification of FAD activities of vessels.
6. WCPFC12 agreed that “*vessel operators should provide data on FADs covering the following two major areas:*
 - a. *FAD design and construction of FAD to be deployed or encountered (materials, electronics, size etc)*
 - b. *FAD activity (deploying, retrieving, setting, visiting, loss etc). ”*
7. WCPFC12 also noted the IWG recommendation that “*data collected by observers on FADs can be used for verification of FAD activities of vessels.*”
8. At its 2nd meeting in Pohnpei, Federated States of Micronesia in September 2016, the IWG recommended that “*the issue of data to be provided by observers be referred to SC13 and TCC13, and CCMs were encouraged to provide delegation papers on this aspect.*”
9. WCPFC13 “*adopted the Report of the second meeting of the FADMgmtOptions-IWG (WCPFC13-2016-FADMgmtOptions-IWG02_rev2), and agreed that the outcomes therein should be further considered at SC13 and TCC13.*”

10. **On the provision of FAD data by vessel operators**, (which will be discussed separately from this paper), SC13 supported the IWG recommendation that the operators of all vessels involved in FAD fishery provide, as a minimum, the fields of information identified in Attachment C of the report of the 2nd meeting of the IWG Report, and recommended that *“the WCPFC Secretariat, together with SPC and other interest parties, prepare the set of data fields to be provided by vessel operators and coordinate with the IATTC staff to try to harmonize the minimum standards to be required across the Pacific Ocean”*. SC13 also recommended that the proposed fields to be collected by vessel operators be forwarded to TCC13 for review and WCPFC14 for adoption.
11. **On the provision of FAD data by observers**, (which is the subject of this paper), SC13 adopted the proposals in this paper, and:
 - a) *recommended the following revisions to the ROP Minimum Standard Data Fields:*
 - *Addition of a new section “FAD Information” that will include inventories of the FAD buoys on board at the start and end of each trip.*
 - *Addition of a new field for FAD Identification.*
 - *Deletion of FAD Data fields related to a) materials FAD is made from and b) estimated size of FAD*
 - b) *“noted that the revisions of the ROP minimum standards will require careful planning and implementation to ensure that the value of WCPFC data on FADs is maintained. In particular, there may need to be a period of overlap in reporting of FAD data where observers continue to report on FAD design and construction while the new reporting requirements for vessel operators are introduced.*
 - c) *“recommended that the revisions to the ROP Minimum Standard Data Fields standards be forwarded to TCC13 for review and WCPFC14 for adoption.”*

Approach

12. The effect of the IWG recommendations and the Commission decisions noted above is that the primary responsibility for provision of data on FAD design and construction, and FAD activities, will be transferred from observers to vessel operators, with data on FADs provided by observers being required for verification of FAD activities.
13. These outcomes reflect a range of considerations for different CCMs including that:
 - a) Vessel operators are better placed currently, and even more so under any WCPFC scheme for physical marking of FADs, to provide data identifying FADs so that information on FAD design can be effectively linked to logsheet data on catches from individual FAD sets and data on FAD interactions including deployments, sightings etc.
 - b) Information on FAD design and construction that the vessel operator can provide, including photos, plans and diagrams of FAD design and construction, is more effective than the information, including drawings by hand, currently provided by observers.
 - c) There is a growing burden of requirements on observers with the monitoring of an increasing range and number of increasingly complex WCPFC CMMs and collection of an increasing range of data.
14. Against this background, it is proposed as discussed further below that:
 - a) The **General Vessel And Trip Information For All Vessel Types Part** of the ROP Minimum Standard Data Fields will be revised to include a Section on FAD Information, which will include an inventory of FAD buoys on board at the start and end of each trip

- b) The **FAD DATA fields** of the ROP Minimum Standard Data Fields will be revised to add a FAD Identification field, and delete Data Fields that will be reported by vessel operators and will not be necessary for observers to collect for verification purposes
- c) A FAD Identification field will be added to the **Purse Seine Information and Data/ Set Information Fields** of the ROP Minimum Standard Data Fields.

General Vessel and Trip Information for All Vessel Types

15. Under the heading “General Vessel and Trip Information for All Vessel Types”, there will need to be a new section “FAD Information”. This section will include inventories of the FAD buoys on board at the start and end of each trip. The inventories will list, for each buoy, the type of buoy (GPS/echo sounding/other), make, model and identification information.

FAD DATA Fields

16. A field for FAD Identification will be added.
17. The following sets of FAD Data fields will be deleted:
 - Materials FAD Is Made From
 - Estimated Size Of FAD
18. The following FAD Data Fields might also be deleted depending on what data is provided by vessel operators:
 - How FAD Is Detected
 - Electronics Associated With FAD
19. This means that the following sets of ROP Minimum FAD Data Fields will be retained:
 - Sighting Date, Time, Position
 - FAD Anchored Or Drifting
 - Origin of FAD
 - FAD Activity

Purse Seine Information and Data/ Set Information Fields

20. A FAD identification field will be added to the Purse Seine Information and Data/ Set Information fields. This data is already routinely reported by observers, where possible, but it is not currently included in the ROP Minimum Standard Data Fields.

Indicative Changes to the ROP Minimum Standard Data Fields

21. An Indicative Mark-Up of the proposed changes to the ROP Minimum Standard Data Fields is attached.

Other Considerations

22. The changes above will require conforming changes to other documentation including the WCPFC ROP Minimum Standard Data Fields Instructions, and observer workbooks.
23. These revisions will require careful planning and implementation to ensure that the value of WCPFC data on FADs is maintained. In particular, there may need to be a period of overlap in reporting of FAD data where observers continue to report on FAD design and construction while the new reporting requirements for vessel operators are introduced.

24. For effective implementation, the operators of all vessels, including support vessels, involved in activities with FADs, including deployment, will need to provide data on FADs and carry ROP observers.
25. When the Commission adopts a CMM with requirements for FAD design and construction, additional ROP data fields will be required to be provided for the purpose of monitoring compliance with that CMM.
26. The key element to making use of FAD data effectively is for FADs, and preferably also FAD attachments, to be consistently identified on the logsheet, on set reports, on FAD activity reports and on FAD design and construction reports so that these FAD-related data elements can be linked.
27. Some flexibility may be needed in determining the final detailed changes to the ROP Minimum Standard Data Fields depending on the form of FAD data to be provided by vessel operators.

Recommendation:

That TCC13:

- a) review the proposed revisions to the ROP Minimum Standard Data Fields proposed above, taking into account the separate discussion on FAD data to be provided by vessel operators; and
- b) note the need for FAD data to be provided by ROP observers for all vessels involved in FAD activities, including support vessels.

Attachment: Indicative Revisions to ROP Minimum Standard Data Fields

VESSEL TRIP INFORMATION	
Date and time of departure from port	The day and time the vessel leaves port to start its fishing campaign. I.e. lifts its anchor, or lets the ropes free from the wharf.
Port of departure	Name of the port of departure - as a help also include the country
Date and time of return to port	The day and time the vessel returns to a port (usually taken when vessel either drops the anchor or ties up to a wharf or another vessel in port; at the completion of its trip.
Port of return	Name of the port where the vessel returns- as a help also include the country.
<u>FAD Inventory at Departure</u>	<u>For each buoy the type of buoy (GPS/echo sounding/other), make, model and identification information</u>
<u>FAD Inventory at Return</u>	

PURSE SEINE INFORMATION AND DATA	
VESSEL AND RELATED ATTRIBUTES	
Number of onboard support vessels	How many vessels on board other than the net skiff, i.e. speedboats light boats, tow boats.
Aircraft Make/Model,/Colour/Call-sign/Registration	If the vessel has a helicopter on board record all the details, usually you can get information from the Pilot.
GEAR ATTRIBUTES	
Maximum depth of net	Ask the engineer what is the maximum net depth
Maximum length of net	Ask the engineer what is the maximum net depth
Net mesh size	Measure and record the net mesh size of the main body of the net
Brailer capacity sizes	Record the size of the main brailer used in mT. if there is more than one brailer record the other sizes as well.
INFORMATION ON DAILY ACTIVITIES	
Date and time of start of daily activities	Record date and when you start each day, record both the /ships time and the UTC time at the same time. Be aware that dates may differ between UTC and ships time.
Time of activity	Record ships time for each activity as indicated on the activity codes table.
Latitude and longitude of activity	Take the position of each activity.
Numbers of school sighted per day	How many free or associated schools of fish were sighted during the day? The vessel may not set on these because of size or amount in school.
SCHOOL INFORMATION	
Method of detection of school	How did the vessel first detect the fish - use the best code
Type of school association	Use codes to describe type of school, remembering that fish feeding on bait fish with no floating objects around is considered unassoc.

SET INFORMATION	
Observer's record of date and time of start of set	Record the Start of set usually recorded when the pelican hook is released and net skiff slides in to the water taking the net with it
Observers record of date and time of end of set	Record when the net skiff is hauled on board after the set
Vessel's record of date and time of start of set	Record what time and date the vessel has entered in the Log sheet for the same set (note do not adjust your time to suit the vessel log it may be different by a few minutes, this is acceptable.
Retained catch, by species	Record all species that are retained using the FAO codes
Discards, by species	Record all species that are discarded using the FAO codes
Tag recovery information	Record as much as information as possible on any Tags recovered
<u>FAD (and attachment) ID</u>	<u>Record the FAD (and attachment) ID No. and/or marking</u>
INFORMATION ON CATCH FOR EACH SET	
Species code	Record all species that are measured using the FAO codes
Length measurement code	Record all species as per the measurement methods given in the codes
Length	Length measured in Centimetres
Estimated weight or quantity of bait caught or used	Estimated weight of bait used for each fishing activity.

FAD DATA Fields	
Name of Observer	Full name of observer -first name first - last name last
Vessel Name	Full name of vessel including numbers
Vessel IRCS	Vessel Radio Call-sign (If none WIN identification)
Observer Trip Number	Trip number allocated by observer provider
Page Number	Number pages used
Date FAD Sighted	Record date of FAD sighting
Time FAD Sighted	Record ships time FAD sighted
Latitude of FAD	Record position of FAD using Latitude
Longitude of FAD	Record position of FAD using Longitude
HOW FAD IS DETECTED <u>Codes for how FAD is Detected</u> 1 Seen from vessel (No other Method) 2 Seen from Helicopter 3 Marked with Radio Beacon 4 Bird radar 6 Information from other vessel 7 Anchored (GPS) 8 Marked with Satellite/GPS beacon 9 Navigation Radar 10 Lights 11 Flock of Birds sighted from vessel 12 Other - please specify in comments 13 Being deployed (so not detected) 20 Unknown	Record the primary method using codes to locate the FAD <u>Note: this field might also be deleted depending on data to be provided by the vessel operator</u>
FAD ANCHORED OR DRIFTING (circle "Y" for <u>Anchored</u> or "N" for <u>Drifting</u>)	Indicate whether the floating object is an anchored Floating object or not.
MATERIALS FAD IS MADE FROM <u>Codes for FAD Main Materials</u> 1 Logs / trees / branches 2 Timber / planks / pallets / spools 3 PVC or plastic tubing 4 Plastic drums 5 Plastic sheeting 6 Metal drums (i.e. 44gal) 7 Philippines design drum FAD 8 Bamboo / Cane 9 Floats / Corks 10 Unknown (Describe) <u>FAD Attachments</u> 11 Chain / Cable rings / Weights 12 Cord / Rope 13 Netting hanging underneath FAD 14 Bair containers 15 Sacking / Bagging 16 Coconut fronds / Tree branches 17 Other materials (Describe)	Record main components that make up the floating object.

<p>ELECTRONICS ASSOCIATED WITH FAD <u>Codes for Electronics associated with FAD</u></p> <ol style="list-style-type: none"> 1 Radio buoy (with identification) 2 Radio buoy-unidentified 3 GPS buoy (with identification) 4 GPS buoy - unidentified 5 Sounderbuoy (with identification) 6 Sounder buoy - unidentified 7 Light buoy 8 Other (describe) <p>(record all available identification Characters)</p>	<p>Record whether any electronics were associated with the floating object?</p> <p><u>Note: this field might also be deleted depending on data to be provided by the vessel operator</u></p>
<p>ORIGIN OF FAD <u>Codes for Origin of FAD</u></p> <ol style="list-style-type: none"> 1. Your Vessel deployed this trip 2. Your vessel deployed previously 3. Other vessel's - with permission 4 Other vessel's - without permission 5 Other Vessel Consent unknown 6 Drifting and found by your vessel 7 Deployed by FAD auxiliary vessel 8 Origin Unknown 9 Other Origin (specify) 	<p>Observer is to try to find out the origin of the object; how did it get to be in the water, etc?</p>
<p>FAD ACTIVITY <u>Codes for FAD Activity</u></p> <ol style="list-style-type: none"> 1 Setting on FAD 2 Deploying FAD 3 Servicing FAD 4 Retrieving FAD 5. Vessel drifting beside FAD attracting fish away from FAD before carrying out a Set 6. Vessel setting close to FAD specify estimated distance in comments 7 Vessel using lights of boat or light boat to attract fish from FAD during night 8 Other (Describe) 9 Investigate floating object using sonar/sounder 	<p>Observer's best describe the activity that the boat is involved with the FAD.</p> <p><i>Code 9 added at SC5</i></p>
<p>ESTIMATED SIZE OF FAD Simple Diagram to be drawn by observer indicating dimensions.</p>	<p>Record the width, breadth, depth of the main body of the object as found or deployed.</p>
<p>COMMENTS</p>	<p>Observer to record FAD information not covered by the</p>
<p>Depth of Netting and or other materials hanging from Floating Object (FAD)</p>	<p>Observers are to try and estimate depth and type of materials hanging below floating objects.</p>
<p>FAD Markings or numbers</p>	<p>Observers are to record any FAD markings such as Numbers – IRCS- Names - or FAD Tag numbers</p>
<p>Describe the "Floating Object" when first found by the vessel.</p>	<p>Observers are to describe the condition, attachments if any, and nature of the floating object when first</p>
<p>Describe any changes or additions to the 'Floating Object' when vessel departs.</p>	<p>Observers are to describe the condition, and any additional work or electronics attached to refresh the</p>

Code guidelines for use with Minimum Standard Data Fields

Purse seine Activity and Helicopter Codes	
1	Set
2	Searching
3	Transit
4	No fishing -Breakdown
5	No fishing – Bad weather
6	In port – please specify port
7	Net Cleaning Set
8	Investigate “Free School”
9	Investigate “Floating Object/s”
10R	Retrieve - Raft FAD or Payao
10D	Deploy - Raft, FAD, Payao
11	No fishing – Drifting at day’s end
12	No fishing – Drifting with a floating object
13	No Fishing – Other Reason
14	Drifting with Fish aggregating lights
15R	Retrieve Radio beacon/GPS buoy, etc.
15D	Deploy Radio beacon/GPS buoy, etc
16	Transshipping or bunkering
17	Service FAD or floating object
H1	<i>Helicopter takes off to search</i>
H2	<i>Helicopter returns from search</i>