



**FIRST E- REPORTING AND E-MONITORING INTERSESSIONAL WORKING GROUP
MEETING (ERandEMWG1)
Novotel Hotel, Nadi, FIJI
8 – 10 July 2015**

SUMMARY REPORT

AGENDA ITEM 1 — OPENING OF MEETING

1.1 Welcome

1. The WCPFC Compliance Manager called the meeting to order, and noted that the WCPFC Executive Director, Mr Feleti P. Teo OBE had delivered remarks related to the opening of this meeting during the IWG-ROP4 meeting (**Attachment 1**). The ERandEMWG Chair, Ms Kerry Smith, Secretariat staff and SPC-OFP staff providing support to this meeting were also introduced.
2. The Chair welcomed participants to the inaugural meeting of the ERandEMWG, and provided some opening remarks to guide the work of the working group. Key points were that:
 - i. There is a wealth of experience across the participants at ERandEMWG1, and that participants have come with a common purpose of contributing to improving the management of data and streamlining data flows from CCMs and their vessels to the Commission;
 - ii. The focus for ERandEMWG1 will be on development of draft electronic-reporting data standards;
 - iii. There is a separate decision by the Commission that is necessary to require CCMs to submit data electronically in a standardized format; and
 - iv. Development of draft standards for electronic reporting by the Commission is not an entirely new concept, for example the Commission has agreed standards for VMS and Record Fishing Vessels (RFV).
3. The following members, cooperating non-members and participating territories (CCMs) attended ERandEMWG1: Australia, Cook Islands, Federated States of Micronesia (FSM), Fiji, Japan, Republic of the Marshall Islands (RMI), Nauru, New Zealand, Papua New Guinea (PNG), Solomon Islands, Chinese Taipei, Tonga, Tuvalu United States of America (USA), and Vanuatu
4. Intergovernmental organisations the Agreement for the Conservation of Albatross and Petrels (ACAP), Pacific Islands Forum Fisheries Agency (FFA), the Parties to the Nauru

Agreement (PNA) Office, and the Secretariat of the Pacific Community (SPC) attended EMandERWG1.

5. Observers representing International Seafood Sustainability Foundation (ISSF), PEW Charitable Trusts, University of the South Pacific (USP), and World Wildlife Fund (WWF) also attended ERandEMWG1.
6. A list of EMandERWG1 meeting participants is at **Attachment 2**.

1.2 Adoption of Agenda

7. The provisional agenda (WCPFC-2015- ERandEMWG1-02) as adopted is at **Attachment 3**.

AGENDA ITEM 2 — REVIEW OF INFORMATION / UPDATES ON APPLICATION OF ER AND EM TECHNOLOGIES IN WCPO

8. The Secretariat introduced WCPFC-2015- ERandEMWG1-03, which reviews the activities by WCPFC and the Secretariat on electronic-reporting and electronic monitoring during 2014/15, and the background to the establishment of the EMandERWG. It was noted that no nominations were received in response to WCPFC Circular 2015/23 that requested technical experts to join the Secretariat and representatives of the specified subregional agencies on the ER-sub working group. The Secretariat further explained that work on the documents in support of the meeting had been completed by the Secretariat and SPC-OFP. The Secretariat expressed its appreciation to Philippines and Chinese Taipei for their willingness to work collaboratively with the Secretariat in recent months, including on trial formats for HSP1SMA and VMS manual reporting in text (txt) or CSV formats (instead of pdf and in-body emails). The Terms of Reference for the ERandEMWG were introduced, noting that the working group reports to TCC and to SC as appropriate.
9. All members participants provided an update on their respective national and subregional initiatives in the areas of electronic reporting and electronic monitoring. SPC-OFP and PNA Office, as well as WWF and ISSF, also provided updates on their respective work in these areas.
10. The Chair summarized the key points from the various presentations as follows:
 - i. There are a number of different trials of electronic technologies that are being undertaken by members and through subregional agencies in the region. Members are at varying stages with respect to implementation;
 - ii. The ERandEMWG provides a valuable mechanism for WCPFC members and subregional agencies to share experiences and facilitate information exchange on lessons learnt and possibly provide opportunities for members to coordinate the development and implementation of electronic technology trials in the WCP region;
 - iii. The ERandEMWG noted that a variety of approaches were being used to incentivize or garner support from vessel operators for these technologies. Training was considered an important component for both vessel operators and national administrations;

- iv. Participants recognised that e-technologies collect data and information for both science and compliance purposes, and that there may be a need for further consideration of these aspects in the development of WCPFC standards and procedures going forward (timeliness, confidentiality, evidentiary status);
 - v. It was noted that the characteristics of some fisheries was a factor to be considered with respect to implementation;
 - vi. There is a need to consider SIDS administrative and technical needs in the further development of ER and EM in the region; and
 - vii. The rate of technology change, including as seen by ER and EM technologies that are being implemented or trialled in the region, does support an “anything is possible” mentality.
11. The Chair briefly introduced WCPFC-TCC10-2014-16 and overviewed the international standards that are approaches for a range of different fisheries data. The use of international standard, where appropriate, would facilitate data sharing across RFMOs. It was noted that the proposed approach in that paper, was used as a basis for the work by the Secretariat and SPC-OFP in their development work on draft standards documentation for the ERandEMWG1 meeting.
 12. **The ERandEMWG acknowledged the substantial work being conducted in the region on ER and EM systems and encourages cooperation and the sharing of related information among CCMs, sub-regional organizations, and NGOs.**
 13. **The ERandEMWG recognized that electronic reporting can enhance data accuracy, data entry efficiency, reducing reporting burden and avoiding duplication for vessel operators and national fisheries agencies, and therefore encourages CCMs and the Commission to develop policies and systems that allow e-reported information to satisfy data reporting requirements.**
 14. **The ERandEMWG recognized that some CCMs support the development of ER systems that require a captain to be able to authenticate submitted data which can be used for enforcement purposes. The ERandEMWG encouraged CCMs that have already addressed ER issues for compliance applicability, to share information to support methods to authenticate ER submitted data.**
 - 15.
 16. The Secretariat on behalf of the CDS-IWG Chair Mr Alois Kinol, confirmed that the next meeting of the CDS-IWG would take place in Pohnpei, FSM on 20-21 September 2015, immediately in advance of the TCC11 meeting. The agenda for that meeting was presently being worked on, but is hoped to include some reports and participation by experts who are developing international best practice standards for catch documentation schemes. It was noted that there were few intersessional responses to the circular seeking comments from CCMs. An understanding that FFA members had continued work to progress their draft proposal document, and this is expected to include linkages to electronic reporting and Information Management Systems development by those members to be proposed as a basis for the WCPFC Catch Documentation Scheme.

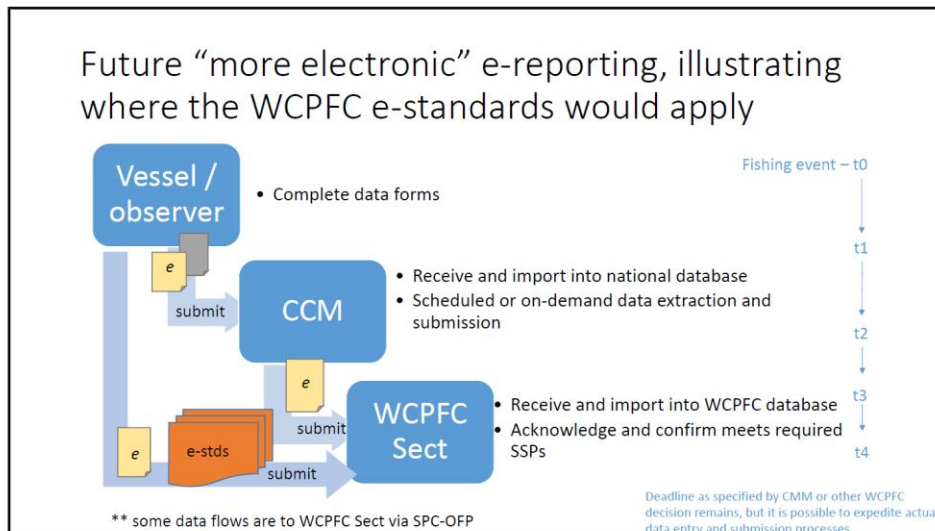
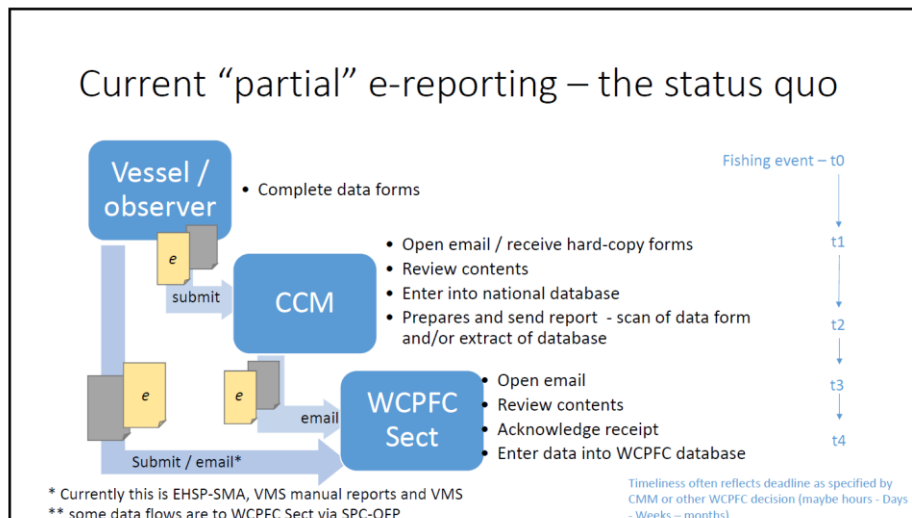
17. The FAD Management Options WG Chair, Mr Brian Kumasi, confirmed that work was currently underway and that advice would shortly be sent out to the working group on the next steps for the FAD Management Options WG intersessional work. He noted an expectation that there are clear linkages to e-reporting initiatives, in the areas of FAD monitoring and possibilities of FAD tracking and management options.
18. The IWG-ROP Chair, Mr Raymond Clarke, congratulated the many member participants who reported progress on trial implementations of electronic reporting technologies in their observer programmes, and encouraged continued work in this area. The IWG-ROP4 report does note specific links to electronic-reporting and noted these to be areas which could continue to be monitored by the IWG-ROP.
19. **The ERandEMWG recognized that there are clear linkages to the ongoing work being conducted in various WCPFC intersessional working groups related to electronic reporting of information and recommended that the Secretariat facilitate participation and information sharing among working groups.**

AGENDA ITEM 3 — DRAFT E-REPORTING STANDARDS

20. The Secretariat introduced WCPFC-2015- ERandEMWG1-04, noting that the draft consultation document used the RFV SSPs format as a basis for the layout. The consultation document was formulated to support discussions at the ERandEMWG1 on a process for development of draft electronic reporting standards. The consultation document for draft standards was provided to ERandEMWG participants in three parts:
 - i. WCPFC-2015-ERandEMWG1-04: Consultation document, including SSPs containing the following Attachments:
 - 1A: Electronic data standard to be used for paragraph 2 of CMM 2010-02 Conservation and Management Measure for the Eastern High Seas Pocket Special Management Area (or its replacement) (EHSPSMARPT)
 - 1B: Electronic data standard to be used for Attachment C paragraph 3 of CMM 2014-01 Conservation and Management Measure for Bigeye, Yellowfin and Skipjack tuna in the Western and Central Pacific Ocean (or its replacement) (HSP1MARPT)
 - 1C: Electronic data standard to be used for WCPFC9 decision on the Standard format for manual position reporting in the event of ALC/MTU Malfunction or Failure (WCPFC9 Summary Report Attachment H) (or its replacement) (VMSMNLRPT)
 - 2: Electronic Formatting Specifications for EHSPSMARPT, HSP1SMARPT and VMSMNLRPT
 - 4: Electronic Formatting Specifications for observer data and logbook data
 - ii. WCPFC-2015-ERandEMWG1-05: Attachment 3A: Electronic data standard to be used for WCPFC ROP Minimum Standard Data Fields, as amended by WCPFC11 decisions; and

- iii. WCPFC-2015-ERandEMWG1-06: Attachment 3B: Electronic data standard to be used for Paragraph 3 and Annex 1 of Scientific Data to be Provided to the Commission.
21. Noting the consultation document to be a collaborative work-product by the Secretariat and SPC-OPF, the Secretariat expressed its appreciation to colleagues at SPC for their considerable efforts in developing and documenting draft standards as contained in WCPFC-2015-ERandEMWG1-05 and WCPFC-2015-ERandEMWG1-06.
 22. To assist meeting participants in visualizing the flow of data to the WCPFC Secretariat either directly from the vessel or via CCMs, the Secretariat described the current arrangements where some degree of human intervention is required and a possible future state whereby data submitted in accordance with the proposed data standards would be subject to no or minimal human intervention. (see Figure 1)

Figure 1. Illustrative Diagram of current arrangements of data flow to the Commission (top), and a possible future state where as a result of the development of electronic data standards a minimal degree of human intervention is required (below).



23. The ERandEMWG recognized that some CCMs already submit data to the Commission through a range of different electronic formats, and often via email. Participants also recognized that some required reporting such as manual position reporting in the event of ALC/MTU malfunction (VMS manual reports), and that some CCMs require their vessels to send these reports directly from the vessel to the WCPFC Secretariat.
24. SPC provided an overview of the draft WCPFC E-Reporting standard data fields for operational observer data (WCPFC-2015-ERandEMWG1-05) concentrating on the structure and objectives of the document. The main components of this document are (i) the introduction which outlines background, purpose and refers to complementary documentation to be used in conjunction with the data standards, (ii) a graphical description of the 'data model' of the operational observer data to be provided (ii) the individual distinct 'tables' (i.e.components) that make up the operational observer data to be provided covering longline and purse seine observer data and (iii) the APPENDICES, which include information on the data fields that need to adhere to international standards (e.g. date and position) and standard codes to be used for certain fields collected by observers.
25. The ERandEMWG noted that the draft standard for operational catch and effort data (WCPFC-2015-ERandEMWG1-06) follows the same structure.
26. **The ERandEMWG encouraged CCMs to consider further evaluation of the draft data field standards for observer data and logsheet data to**
 - i. **(i) review and comment on the draft data standards document for logsheet and observer data, and**
 - ii. **(ii) attempt to produce sample data according to these draft data standards and submit the sample data to SPC with any comments on any issues encountered in the process.**
27. The ERandEMWG noted that the US, NZ and Chinese Taipei offered to send in sample data using the draft data standards. No strict deadline for the submission of the sample data was suggested but at least one of these CCMs suggested it should be possible prior to TCC11.
28. SPC-OFP to introduced a selection of file formats that could be used for electronic data transmission (logbook and observer data): XML (preferred format), TEXT (delimited or not, txt), Comma-separated values (csv), EXCEL (xls). (**Attachment 4**)
29. In reference to Attachment 4 in the consultation document (WCPFC-2015-ERandEMWG1-04), some suggested language on file naming was also discussed, and agreed to be formatted with a unique name, featuring: the CCM submitting the data, the vessel details (RFV VID and departure date), the type of data (logsheet or observer), and a reference to the corresponding standard table. These suggestions were incorporated into the revised consultation document. The need to ensure security of data transmission (through encryption) was also suggested.
30. The ERandEMWG noted that the draft standards (SSPs) would benefit from some preamble language to set the context.

AGENDA ITEM 4 — STRATEGIES FOR E-REPORTING IN THE WCPO

31. Participants generally supported the approach proposed in WCPFC-2015-ERandEMWG1-04, noting that the consultative document and associated attachments provided a good basis for progressing the development of ER SSPs as it was consistent with current requirements relating to data fields and submission and reiterated that the adoption of standards was separate to a decision to require CCMs to report electronically. The ERandEMWG recognized that, in order to support a standardized approach to ER, the data required by current decisions of the Commission needed to be further described including technical specifications. The RFV SSPs are a good example and the attachments in WCPFC-2015-ERandEMWG1-04, build on the format used in the RFV SSPs.
32. Further discussion and clarification centred on:
 - i. Recognition of the need for further refinement of the SSPs and the possibility that the Commission may wish to empower the subworking group with making refinements relating to data validation rules and other small technical changes
 - ii. That there may be a preference to link the ER SSPs associated with specific CMMs to their respective CMM (eg as an appendix)
 - iii. Consistency in specifications for data fields and formats (eg file names)
 - iv. In some cases, additional data fields were necessary to support the implementation of ER
 - v. Opportunities to “test the specs” by cooperating with the Secretariat and SPC
 - vi. The need to involve staff responsible for reporting when reviewing specifications
 - vii. The need to consider submission of electronically reported data by vessels direct to the Secretariat in addition to reporting by CCMs direct to the Secretariat (eg HSP1 reporting, VMS manual reporting)
33. **The EMandERWG tasked the sub-working group (referenced in ERandEMWG Terms of Reference workplan item 1) to:**
 - i. **develop and maintain a master list of electronic data standards to support the collection of Commission agreed data fields that includes but is not limited to data validation rules field formats and tags;**
 - ii. **recommend amendments to CMMs and certain decisions covered by these SSPs in relation to data fields that are reported electronically;**
 - iii. **undertake testing as appropriate, of data submission by CCMs working with the Secretariat or SPC using the master list of electronic data standards;**
 - iv. **review results of data submission by CCMs working with the Secretariat or SPC using the master list of electronic data standards; and**
 - v. **report to the ERandEM WG as required (including electronically).**
34. **The ERandEMWG agreed to recommend the draft SSPs to TCC11 for consideration, with the recognition that the SSPs could be further refined prior to WCPFC12. (Attachment 5)**

35. **The ERandEMWG recommended that TCC11 consider how the electronic reporting standards associated with specific CMMs are linked to their respective CMMs.**
36. **The ERandEMWG recommended that TCC11 discuss additional SSPs that may be useful (eg transshipment notification).**
37. Participants noted that a unique vessel identifier was important in order to link events and relevant data to an individual vessel. The VID (which is number that is generated automatically by the RFV, see CMM 2014-03) was noted as presently providing the basis for linking records within WCPFC databases, and that this was the basis for its inclusion in the draft standards.
38. The ERandEMWG noted the VID was a minimum data field for the RFV (CMM 2014-03) and it provides a means to match reporting related to a specific vessel within WCPFC databases.

AGENDA ITEM 5 — STRATEGIES FOR E-MONITORING IN THE WCPO

39. The Chair opened this agenda item noting that electronic-monitoring would be an area of longer-term work for the ERandEMWG.
40. Key points noted in the discussions included:
 - i. A view that electronic monitoring should not replace human observers completely, but that they are expected to be complementary;
 - ii. Trials should continue to be undertaken, and members should continue to share experiences with other members;
 - iii. Further analysis should be undertaken of cost-benefits of electronic monitoring technologies, including on processes to review videos;
 - iv. There may be some scope for electronic monitoring technologies to be used in fisheries where there is a perceived higher risk to the safety of observers; and
 - v. Electronic monitoring could also be considered as an intermediary step until CCMs are able to implement higher levels of observer coverage, particularly in improving monitoring of fisheries impacts on species of special interest.
 - vi. Acknowledgement that EM could be beneficial for monitoring implementation of operational vessel aspects with respect to adopted CMMs (eg CMM 2012-07 on seabird mitigation measures).
41. **The ERandEMWG encouraged the development of EM in areas where data gaps exist such as longline observer coverage and high seas transshipment.**
42. **The ERandEMWG recognized that EM systems can support and complement observer programs.**

AGENDA ITEM 6 — GENERAL DISCUSSION AND NEXT STEPS

43. The ERandEMWG noted that the priority continued to be the development of standards to coordinate efforts of CCMs and the Secretariat in their efforts to take these technologies forward. The Chair noted that the steps taken in developing standards were positive. Further work was needed in areas such as training, confidentiality, technical capacity. The Chair also noted that we had a joint responsibility to reflect on the work of the ERandEMWG when drafting or revising CMMs.
 44. Participants requested that a copy of SPC's presentation on eTUNALOG be included in the attachments to the record (**Attachment 6**).
 45. The Chair congratulated the participants on their considerable work over the last two and a half days. She commented that at its inaugural meeting the ERandEMWG has made good progress on its priority task to develop draft electronic reporting standards. The draft proposed standards have been developed taking into account the different stages of implementation of electronic reporting amongst members, and is intended provide a basis for CCMs and the Secretariats preparations and enhancing technical capacities. Importantly the draft standards is intended to be a founding document, which can be expanded to include additional types of CMM reporting. She also noted that it will be incumbent on the members of the ERandEMWG to consider our work when considering revisions to existing CMMs or development of new CMMs.
 46. Eric Kingma expressed on behalf of the participants thanks to the Chair for her leadership of the ERandEMWG. He also thanked the Secretariat and SPC-OFP for their considerable work in developing the draft standards document that were the basis of the discussions and in their support to the meetings.
 47. Warren Papworth expressed thanks on behalf of ACAP for the dedication and hard work by the ERandEMWG at this meeting. He noted the work by the ERandEMWG as being important to the development of a sustainable fishery in the Western and Central Pacific.
 48. The Chair closed the meeting at 12.45pm on Friday 10 July 2015.
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WCPFC Executive Director; Mr Feleti Teo Statement at the Opening of the Meetings of the Inter-sessional Working Groups on the Regional Observer Programme and the Electronic Reporting and Monitoring

[At Nadi, Fiji on 6th July, 2015]

Colleagues, ladies and gentlemen. I appreciate and am grateful for the opportunity to make some remarks at this opening session of the meetings of the two inter-sessional working groups of the WCPFC taking place this week here in Nadi, Fiji Islands.

So let me firstly extend to you all participants a very warm welcome and a big nisa bula vianka to Nadi, Fiji Islands. But before I proceed with my remarks, let me acknowledge some people present in the room who have been instrumental in putting together the arrangements and materials for the two meetings.

In that regard, I acknowledge the Chair-persons of the two working groups. Mr Ray Clarke of the USA who is the chair for the IWG on the Regional Observer Programme (ROP); and Ms Kerry Smith of Australia who is the Chair for the IWG on Electronic Reporting and Electronic Monitoring (ERandEM). Thank you both for your enormous input and guidance to the development of the meeting agenda and the meeting documentation.

As participants will recall there were two other IWGs that were tasked by the Commission to undertake specific tasks. One on FAD Managements Options and the other on a Catch Documentation Scheme. We do have with us this week Mr Brian Kumasi of PNG who is the chair of the FAD Management Options working group, and I wish to acknowledge him personally as well. We were also hoping to have with us this week the Chair of the Catch Documentation Scheme working group, Mr Alois Kinol also of PNG who due to other competing commitments he is unable to be with us this week.

Ladies and gentlemen. I had wanted to specifically acknowledge the Chair-persons of these IWGs because these officials have their own full time jobs, and because of these roles entrusted on them they have to put in extra efforts at no costs to the Commission but to the enormous benefits of all members of the Commission. So I commend and applaud all their efforts and the cooperative and collaborative manners in which they have worked with the Secretariat.

I also acknowledge representatives of all CCMs present here this week, in particular to those that provided feedback and input to the agenda and meeting material for the two meetings this week.

I also acknowledge representatives of Observers, in particular those that have taken a keen and active interest in the work of these IWGs, I thank you also for your input.

I also acknowledge colleagues from our partner organisations, from FFA, SPC and USP.

Last but not least, I acknowledge my own staff at the Secretariat.

As most of you know I am still relatively fresh at the Secretariat and I am most grateful for the technical guidance I receive from staff in our compliance division. We have with us here this week, Dr Lara Manarangi-Trott; the Compliance Manager; Mr Karl Staisch; Manager of the ROP; and Mr Donald David, Data Quality officer for ROP.

These meetings this week are in fact the first set of meetings of the Commission after I took office as your Executive Director in March of this year. And I made every efforts to be here for the start of what will be an interesting week as we collectively seek to improve the performance and operation of the ROP and to

develop a new compliance tool for the Commission in the form of an electronic reporting and monitoring scheme.

So during the course of this week, we expect a mixture in the discussions of an existing compliance tool in the ROP and the discussion taking forward the aspiration to institute an electronic reporting and monitoring scheme for the Commission.

The first two and a half days, will involve discussions that will review and reflect on experiences from the implementation of the ROP over the last seven years. As you all know, the observer coverage in the tropical purse seine fishery has been at 100% for almost five years. The early years of implementing 100% observer coverage wasn't without its challenges for many of the national and sub-regional observer programmes as they strove to ensure supply of qualified and well trained observers to the ROP. In more recent times, there are now the requirement for 100% observer monitoring on the carriers receiving high seas transshipments, and the requirement for a minimum of 5% observer coverage in longline fisheries which has been in place for almost two years.

The IWG-ROP, under the chairmanship of Ray Clarke, is to review the operation and performance of the ROP and to seek to address the specific technical and operational issues identified and directed by the Commission in its meeting in Apia, Samoa last year. The underlying objective of the work of this IWG is to recommend improvements to the ROP and to promote a more consistent and more common understanding of the application of the ROP.

The second half of the week, is expected to focus on some preparatory work on a new and growing area of interest for the Commission. This is in the exciting area of utilizing existing electronic technologies in meeting reporting and monitoring responsibilities as Commission members. The preparatory work will, obviously need to take into account the efforts of many members of the Commission who have already commenced implementation of new electronic technologies to better support their fisheries monitoring, management and compliance and enforcement activities. In particular, the specific preparatory task that will be considered by the second IWG this week is the development of draft electronic reporting standards. It is also expected that a workplan for future work may be recommended, which among others will propose a schedule for the development of draft e-monitoring standards. The more immediate intention is to ensure that the Secretariat will have the capacity to receive a range of data and reports as required by CMMs and other decisions, which will be based on data collected through a members chosen national and / or sub-regional electronic technologies. The development of such standards and specifications, will be the task for the Electronic Reporting and Electronic Monitoring Inter-sessional Working Group to be chaired of Ms Kerry Smith. The ultimate objective of the work of this working group will be that, at some point in the future key, Commission members will be in a position to utilize these electronic technologies to meet their fisheries data reporting obligations.

So it will be a full work schedule for participants this week. I know most of you will be participating in both meetings. We have structured the agenda and meeting proceedings to keep them less formal and more interactive to facilitate free flowing discussions and participation.

Without taking up much more of your time I wish all of you successful deliberations.

And I wish Ray and Kerry well in presiding over you deliberations.

Thank you

END



FIRST E- REPORTING AND E-MONITORING WORKING GROUP MEETING

(ERandEMWG1)

Novotel Hotel, Nadi, FIJI

8 – 10 July 2015

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**FIRST E- REPORTING AND E-MONITORING WORKING GROUP MEETING
(ERandEMWG1)**

Novotel Hotel, Nadi, FIJI

8 – 10 July 2015

AGENDA

Wednesday 8th July 2015 (Day 1 - afternoon session only)

| | | Doc list |
|---------------|----------------------------------------------------------------------------------------------------------|-----------------|
| 2.00-2.30pm | AGENDA ITEM 1. WELCOME AND OPENING | |
| | 1.1 Opening | |
| | 1.2 Adoption of agenda | |
| | 1.3 Meeting arrangements | |
| 2.30 – 3.00pm | AGENDA ITEM 2. REVIEW OF INFORMATION / UPDATES ON APPLICATIONS OF ER AND EM TECHNOLOGIES IN WCPFC | |
| | 2.1 Report from Secretariat, including review of 2014/15 WCPFC activities and introduce ERandEMWG TOR | 3 |
| 3.00 – 4.15pm | 2.2 Reports from CCMs | |
| | 2.3 Reports from Subregional Agencies | |
| | 2.4 Reports from Chairs of other WCPFC IWGs | |
| 4.15 -4.30pm | Afternoon tea | |
| 4.30 – 5.30pm | 2.5 Brief introduction to international fisheries standards | TCC10/16 |
| | AGENDA ITEM 3. DRAFT E-REPORTING STANDARDS | |
| | 3.1 Brief introduction/overview of draft ER standards document and approach - Secretariat | 4, 5, 6 |

Thursday 9th July 2015 (Day 2)

| | | |
|---------------|----------------------------------------------------------------|--|
| 8.30 – 9.00am | Recap from Day 1 | |
| 9.00-10.30am | AGENDA ITEM 3. DRAFT E-REPORTING STANDARDS | |
| | 3.2 Detailed review of draft ER standards document (continued) | |
| 10.30 – 11am | Morning tea | |
| 11-12.30pm | 3.2 Detailed review of draft ER standards document (continued) | |
| 12.30 -1.30pm | Lunch | |
| 1.30-3.00pm | 3.2 Detailed review of draft ER standards document (continued) | |
| 3.00 -3.30pm | Afternoon tea | |
| 3.30 – 5.30pm | 3.2 Detailed review of draft ER standards document (continued) | |



**FIRST E- REPORTING AND E-MONITORING WORKING GROUP MEETING
(ERandEMWG1)
Novotel Hotel, Nadi, FIJI
8 – 10 July 2015**

PROVISIONAL AGENDA AND INDICATIVE SCHEDULE

Friday 10th July 2015 (Day 3)

| | | |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 8.30 – 9.00am | Recap from Day 2 | |
| 9.00-10.30am | AGENDA ITEM 4. STRATEGIES FOR E-REPORTING IN WCPO 4.1 Next steps for development of draft E-Reporting standards, 4.2 Discuss possible prioritization and timelines for implementation of E-reporting in WCPO, and likely resource implications | |
| 10.30 – 11am | Morning tea | |
| 11-12.30pm | AGENDA ITEM 5. STRATEGIES FOR E-MONITORING IN THE WCPO 5.1 Next steps for development of draft E-Monitoring standards | |
| 12.30 -1.30pm | Lunch | |
| 1.30-3.00pm | AGENDA ITEM 6. GENERAL DISCUSSION AND NEXT STEPS 6.1 Outcomes – Next steps and report to TCC11/WCPFC12 6.2 Notes on linkages to other IWGs and work of other subsidiary bodies | |
| 3.00 -3.30pm | Afternoon tea | |
| 3.30 – 5.30pm | AGENDA ITEM 7. OTHER MATTERS AGENDA ITEM 8. CLOSE | |

Initial proposals for E-Reporting submissions
FILE FORMATS

Example - Table of ER data standards

1.6 PS SET LEVEL DATA

| PS SET | | | | | | |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------|------------|
| FIELD | Data Collection Instructions | Field format notes | Validation rules | SAF CODE | EMC TAG | MSFC FIELD |
| TRIP IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL * DEPARTURE DATE | | Link to TRIP information | | <TRIP_ID> | |
| ACTIVITY IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be DATE * START TIME OF ACTIVITY | | LINK to ACTIVITY (SET) | | <ACTIVITY ID> | |
| START DATE/TIME OF SET | PROVIDE the start time of the set which is defined at the time the SKIFF is launched. | REFER TO APPENDIX A1 | Expect to be automatically integrated/generated with GPS DEVICE The chronology of SET START TIME with respect to other dates/times for the trip must be valid. | ST | <SETSTART> | Y |
| END DATE/TIME OF SET | PROVIDE the end time of the set which is defined as the time when the "KINGS UP" ON DECK. | REFER TO APPENDIX A1 | Expect to be automatically integrated/generated with GPS DEVICE The chronology of SET END TIME with respect to other dates/times for the trip must be valid. | ET | <SETEND> | Y |
| SCHOOL ASSOCIATION | PROVIDE the School Associated Code | REFER TO APPENDIX A6 | The code must be within the valid range. | SA | <SCHOOL> | Y |
| SCHOOL ASSOCIATION NOTE | PROVIDE information of the SCHOOL ASSOCIATION in cases where the school association is not covered in the list of School association_codes 1. To 7. | VARCHAR(10) | Used only when the SCHOOL ASSOCIATION = 8 | SA | <SCH_NOTE> | Y |

Initial proposals for E-Reporting submissions
FILE FORMATS

FIVE (5) STANDARD FILE FORMATS proposed

1. XML format
2. TXT file – COMMA delimited
3. TXT file – TAB delimited
4. TXT file – No delimiters
5. XLS format

Initial proposals for E-Reporting submissions – File formats

1. XML format

- **PROS** : Recognised means of providing data in a structured manner, RDBMS tools readily available to import these data
- **CONS** : potentially complex to generate – may need DB tech skills, larger files sizes that other formats, ...

```

<?xml version="1.0"?>
<ROWSET>
  <ROW>
    <VESSEL_ID>33456</VESSEL_ID>
    <DEP_DATE>2014-02-14</DEP_DATE>
    <ACTIVITY_ID>3</ACTIVITY_ID>
    <SETSTART>2014-02-16T09:32Z</SETSTART>
    <SETEND>2014-02-14T09:32Z</SETEND>
    <SCHOOL></SCHOOL>
    <SCH_NOTE></SCH_NOTE>
  </ROW>
  <ROW>
    <VESSEL_ID>33456</VESSEL_ID>
    <DEP_DATE>2014-02-14</DEP_DATE>
    <ACTIVITY_ID>2</ACTIVITY_ID>
    <SETSTART>2014-02-17T09:32Z</SETSTART>
    <SETEND>2014-02-14T09:32Z</SETEND>
    <SCHOOL></SCHOOL>
    <SCH_NOTE></SCH_NOTE>
  </ROW>
  <.....>
</ROWSET>

```

Initial proposals for E-Reporting submissions – File formats

2. TXT file (COMMA Separated Values – CSV file)

- **PROS** : Standard format already used by some countries to provide data
- **CONS** : Problems when fields values include commas !
- **Requirement** : **remove COMMAS from all fields**

```

VESSEL_ID,DEP_DATE,ACTIVITY_ID,SetStart,SetEnd,SCHOOL,SCH_NOTE
33456,2014-02-14,3,2014-02-16T09:32Z,2014-02-14T09:32Z,,
33456,2014-02-14,2,2014-02-17T09:32Z,2014-02-14T09:32Z,,
33456,2014-02-14,1,2014-02-18T09:32Z,2014-02-14T09:32Z,4,

```

Initial proposals for E-Reporting submissions – File formats

3. TXT file (TAB delimited)

- **PROS** : Standard format already used by some countries to provide data
- **CONS** : Problems when fields include TABS !
- **Requirement** : **remove TABS from all fields**

| VESSEL_ID | DEP_DATE | ACTIVITY_ID | SetStart | SetEnd | SCHOOL | SCH_NOTE |
|-----------|------------|-------------|-------------------|-------------------|--------|----------|
| 33456 | 2014-02-14 | 3 | 2014-02-16T09:32Z | 2014-02-14T09:32Z | | |
| 33456 | 2014-02-14 | 2 | 2014-02-17T09:32Z | 2014-02-14T09:32Z | | |
| 33456 | 2014-02-14 | 1 | 2014-02-18T09:32Z | 2014-02-14T09:32Z | 4 | |

Initial proposals for E-Reporting submissions – File formats

4. TXT file (no delimiters)

- **PROS** : No need to strip out commas/tabs, efficient file size, some CCMs are already providing data in this format (not new process)
- **CONS** : issues if the data format is not strictly adhered to

| VESSEL_ID | DEP_DATE | ACTIVITY_ID | SetStart | SetEnd | SCHOOL | SCH_NOTE |
|-----------|------------|-------------|-------------------|-------------------|--------|----------|
| 33456 | 2014-02-14 | 3 | 2014-02-16T09:32Z | 2014-02-14T09:32Z | | |
| 33456 | 2014-02-14 | 2 | 2014-02-17T09:32Z | 2014-02-14T09:32Z | | |
| 33456 | 2014-02-14 | 1 | 2014-02-18T09:32Z | 2014-02-14T09:32Z | 4 | |

Initial proposals for E-Reporting submissions – File formats

5. XLS file (EXCEL)

- **PROS** : can easily be imported into database since fields are well defined
- **CONS** : -

| | A | B | C | D | E | F | G |
|---|-----------|-------------------|-----------|-------------------|-------------------|--------|----------|
| 1 | VESSEL_ID | DEP_DATE | ACTIVITY_ | SetStart | SetEnd | SCHOOL | SCH_NOTE |
| 2 | 33456 | 2014-02-14T09:32Z | 3 | 2014-02-16T09:32Z | 2014-02-14T09:32Z | | |
| 3 | 33456 | 2014-02-14T09:32Z | 2 | 2014-02-17T09:32Z | 2014-02-14T09:32Z | | |
| 4 | 33456 | 2014-02-14T09:32Z | 1 | 2014-02-18T09:32Z | 2014-02-14T09:32Z | 4 | |
| 5 | | | | | | | |

Initial proposals for E-Reporting submissions – File naming

XX DDD VID DEPDTE <Table Name>.EXT

- **XX** – two letter ISO country code of the CCM providing the file
- **DDD** – type of report (LOG – logbook e-data and OBS – Observers e-data)
- **VID** – five digit integer assigned number for a vessels record on the WCPFC Record of Fishing Vessels (RFV)
- **DEPDTE** – Departure date of the Vessel trip (format YYYYMMDD)
- **<Table_Name>** – Respective (subset data) table name within this data type
- **EXT** – the standard file extension (according to chosen format)

Example: FM_OBS_35641_20140214_PS_CATCH.CSV

Represents a comma-delimited file provided by FSM for an observer trip on-board the vessel identified with WCPFC RFV id as '35641' with a departure date of 14/03/2014; This file is the subset data for this trip corresponding to the PS_CATCH Table in the ER Observer data standards document

Initial proposals for E-Reporting submissions – Other Considerations

Data Compression (efficiency)

Data confidentiality issues

- Data encryption/decryption

Data transmission

- Secure FTP
- Email ?
- Cloud-hosted, third-party secure transmission tools...

CONSULTATION DOCUMENT_as amended by ERandEMWG1

DRAFT - STANDARDS, SPECIFICATIONS AND PROCEDURES (SSP) FOR ELECTRONIC REPORTING IN THE WESTERN AND CENTRAL PACIFIC FISHERIES COMMISSION

Objectives for the SSP

1. These SSP are a set of data standards that, at a minimum:
 - a. provide a basis for those CCMs who are considering the implementation of electronic reporting technologies in their fisheries;
 - b. provides a mechanism, for those CCMs who have commenced implementation of electronic reporting technologies in their fisheries, to have the option of using these technologies to facilitate their implementation of certain reporting requirements to the Commission;
 - c. provides a basis for the Secretariats preparations to be ready to receive a standardized set of electronically reported fisheries data from CCMs and as appropriate from vessels;
 - d. takes into account current and developing fisheries monitoring and information management systems in use in WCPFC fisheries; and
 - e. where practicable, is mindful of existing and proposed data standards and formats in other regional bodies and RFMOs.

Scope of application

2. These SSPs apply initially to the following reporting requirements under these conservation and management measures or decisions of the WCPFC:
 - a. Paragraph 2 of CMM 2010-02 *Conservation and Management Measure for the Eastern High Seas Pocket Special Management Area*;
 - b. Attachment C paragraph 3 of CMM 2014-01 *Conservation and Management Measure for Bigeye, Yellowfin and Skipjack tuna in the Western and Central Pacific Ocean*;
 - c. WCPFC9 decision on the *Standard format for manual position reporting in the event of ALC/MTU Malfunction or Failure* (WCPFC9 Summary Report Attachment H); and
 - d. Paragraph 3 and Annex 1 of *Scientific Data to be Provided to the Commission*;
 - e. *WCPFC ROP Minimum Standard Data Fields*, as amended by WCPFC11 decisions.

3. Until decided otherwise by the Commission, other forms of electronically reported data, and as appropriate hard copy formats, will continue to be acceptable forms of reporting from CCMs, and as appropriate from their vessels, to meet agreed reporting requirements under the above listed conservation and management measures or decisions of the WCPFC.
4. These SSP, including any agreed amendments, will take effect [six] months after adoption by the WCPFC.

Responsibilities of CCMs

5. It shall be the responsibility of CCMs who choose to use electronic reporting technologies to meet certain WCPFC reporting requirements to:
 - a. submit electronically reported data to the WCPFC Secretariat¹ that includes the minimum required fields and also meets the structure and format specifications of Attachment 1A, 1B, 1C, 3A and 3B as appropriate; and
 - b. submit electronically reported data to the WCPFC Secretariat that meet the electronic format specifications of Attachment 2 and 4, as appropriate.²
6. It shall be the responsibility of CCMs to inform the WCPFC Secretariat of any confidentiality requirements that may need to be taken into account upon receipt of such data.

Responsibilities of the WCPFC Secretariat

7. It shall be the responsibility of the WCPFC Secretariat to:
 - a. develop and maintain the technical and administrative systems that ensure data confidentiality³ needed to receive electronically reported data from CCMs, which may be submitted and that meet the electronic format specifications of Attachment 2 and 4;
 - b. acknowledge, upon receipt of electronically reported data from a CCM or as appropriate from a vessel, receipt of the data and indicate to the CCM and as appropriate to the vessel, in a timely manner whether the data meet the minimum

¹ It is recognized that some CCMs, who are SPC members, submit data described in Attachment 3A and 3B to WCPFC via SPC-OFP

² The Commission may consider additional modes of transmission, such as modes involving direct links between the Commission's and CCMs' databases.

³ In accordance with applicable data confidentiality rules, including Rules and Procedures for the Protection, Access to, and Dissemination of Data Compiled by the Commission (2007 and 2009)

data requirements and, if applicable, whether they meet the electronic formatting specifications of Attachment 2 and 4;

- c. monitor and report annually to the TCC, and as appropriate the SC, on the performance of these electronic reporting standards and their application and, as necessary, make recommendations for improvements or modifications;
- d. recommend continual improvements to these SSPs, including, where appropriate, standards and codes that are consistent with those used in other international fora, such as the FAO and UN/CEFACT; and
- e. ensure the electronic data standards are publically available and is suitably version controlled.

Attachment 1A. Electronic data standard to be used for paragraph 2 of CMM 2010-02 Conservation and Management Measure for the Eastern High Seas Pocket Special Management Area (or its replacement) (EHSPSMARPT)

| EHSP-SMA reporting | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|------------------------|
| <p>2. Flag States shall require their vessels to submit reports, directly, or through such organisations designated by the flag state to the Commission at least 6 hours prior to entry and no later than 6 hours prior to exiting the E-HSP. Such reports shall also contain estimated catch (kilograms) on board. This information shall immediately be transmitted by the Commission Secretariat to the adjacent coastal states/territories, and shall be considered non-public domain data. The report shall be in the following format: VID/Entry/Exit: Date/Time¹; Lat/Long¹; YFT/BET/ALB/SKJ/SWO/SHK/OTH/TOT(kgs) /TRANSHIPMENT (Y/N)²</p> <p>¹ Of anticipated point of entry or exit. ² WCPFC11 agreed to amend CMM 2010-02 paragraph 2 to add vessel name to reporting requirements</p> | | | | |
| Field name | Field format | Field description/instructions | Example | Ref. in CMMs |
| VID | Number (integer) | This number is generated automatically by the WCPFC Record of Fishing Vessels (RFV), and is now a field that in accordance with CMM 2014-03 is displayed, for all vessels on the WCPFC RFV. | 10503 | 2010-02: 02 2014-03 |
| Entry/Exit | Text | Enter “ENTRY” for reports prior to entry to Eastern High Seas Pocket Special Management Area. Enter “EXIT” for reports made prior to exiting the Eastern High Seas Pocket Special Management Area | ENTRY | 2010-02: 02 |
| Date/Time | Number (integer) | Of anticipated point of entry or exit, in UTC and 24 hour format (ISO 8601) [YYYY]-[MM]-[DD]T[HH]:[MM]Z | 2014-01-24T23:00Z | 2010-02: 02 |
| Latitude | Number (integer) | Positions to degrees and minutes to 3 decimal places (ISO 6709) +/- DDMM.MMM | - 14.166 <i>(for 14-10-00 S)</i> | 2010-02: 02 |
| Longitude | Number (integer) | Positions to degrees and minutes to 3 decimal places (ISO 6709) +/- DDDMM.MMM | - 157.45 <i>(for 157-27-00 W)</i> | 2010-02: 02 |
| Yellowfin | Number (integer) | Provide total weight (kg) of YELLOWFIN onboard. Enter “0” if NONE | 23 | 2010-02: 02 |
| Bigeye | Number (integer) | Provide total weight (kg) of BIGEYE onboard. Enter “0” if NONE | 16 | 2010-02: 02 |
| Albacore | Number (integer) | Provide total weight (kg) of ALBACORE onboard. Enter “0” if NONE | 0 | 2010-02: 02 |

EHSP-SMA reporting

2. Flag States shall require their vessels to submit reports, directly, or through such organisations designated by the flag state to the Commission at least 6 hours prior to entry and no later than 6 hours prior to exiting the E-HSP. Such reports shall also contain estimated catch (kilograms) on board. This information shall immediately be transmitted by the Commission Secretariat to the adjacent coastal states/territories, and shall be considered non-public domain data. The report shall be in the following format:

VID/Entry/Exit: Date/Time¹; Lat/Long¹; YFT/BET/ALB/SKJ/SWO/SHK/OTH/TOT(kgs) /TRANSHIPMENT (Y/N)²

¹ Of anticipated point of entry or exit.

² WCPFC11 agreed to amend CMM 2010-02 paragraph 2 to add vessel name to reporting requirements

| Field name | Field format | Field description/instructions | Example | Ref. in CMMs |
|-----------------------------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|---------------|
| Skipjack | Number (integer) | Provide total weight (kg) of SKIPJACK onboard. Enter "0" if NONE | 0 | 2010-02: 02 |
| Swordfish | Number (integer) | Provide total weight (kg) of SWORDFISH onboard. Enter "0" if NONE | 0 | 2010-02: 02 |
| Shark | Number (integer) | Provide total weight (kg) of SHARKS onboard. Enter "0" if NONE | 0 | 2010-02: 02 |
| Other | Number (integer) | Provide total weight (kg) of OTHER CATCHES onboard Enter "0" if NONE | 5 | 2010-02: 02 |
| Total | Number (integer) | Provide total weight (kg) of all species on board. Enter "0" if NONE | 54 | 2010-02: 02 |
| Transshipment (Y/N) | Text | Enter "Y" if intend to transship in Eastern High Seas Pocket Special Management Enter "N" if do not intend to transship in Eastern High Seas Pocket Special Management | N | 2010-02: 02 |
| WCPFC Identification Number (WIN) | Text | Vessel identifier assigned by flag State in accordance with CMM 2004-03, in UPPER CASE | ABC1234 | 2013-10: 6(a) |
| Vessel Name | Text | Name of the fishing vessel as indicated on flag State registration, in UPPER CASE | SEA MAPLE II | 2013-10: 6(a) |

Attachment 1B. Electronic data standard to be used for Attachment C paragraph 3 of CMM 2014-01 Conservation and Management Measure for Bigeye, Yellowfin and Skipjack tuna in the Western and Central Pacific Ocean (or its replacement) (HSP1MARPT)

| PHILIPPINES HSP1-SMA reporting | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|-------------------|
| 3. Philippines shall require its concerned vessels to submit reports to the Commission at least 24 hours prior to entry and no more than 6 hours prior to exiting the HSP-1 SMA. This information may, in turn, be transmitted to the adjacent coastal States/Territories. The report shall be in the following format: VID/Entry or Exit: Date/Time; Lat/Long | | | | |
| Field name | Field format | Field description/instructions | Example | Ref. in CMMs |
| VID | Number (integer) | This number is generated automatically by the WCPFC Record of Fishing Vessels (RFV), and is now a field that in accordance with CMM 2014-03 is displayed, for all vessels on the WCPFC RFV. | 10503 | 2014-03 |
| WCPFC Identification Number (WIN) | Text | Vessel identifier assigned by flag State in accordance with CMM 2004-03, in UPPER CASE | ABC1234 | 2013-10: 6(a) |
| Vessel Name | Text | Name of the fishing vessel as indicated on flag State registration, in UPPER CASE | SEA MAPLE II | 2013-10: 6(a) |
| Entry/Exit | Text | Enter “ENTRY” for reports prior to entry to High Seas Pocket 1 - Special Management Area. Enter “EXIT” for reports made prior to exiting the High Seas Pocket 1 - Special Management Area. | EXIT | 2014-01: Att C 03 |
| Date/Time | Number (integer) | Of anticipated point of entry or exit, in UTC and 24 hour format (ISO 8601) [YYYY]-[MM]-[DD]T[HH]:[MM]Z | 2014-01-24T23:00Z | 2014-01: Att C 03 |
| Latitude | Number (integer) | Positions to degrees and minutes to 3 decimal places (ISO 6709) +/- DDMM.MMM | - 14.166 <i>(for 14-10-00 S)</i> | 2014-01: Att C 03 |
| Longitude | Number (integer) | Positions to degrees and minutes to 3 decimal places (ISO 6709) +/- DDDMM.MMM | - 157.45 <i>(for 157-27-00 W)</i> | 2014-01: Att C 03 |

Attachment 1C. Electronic data standard to be used for WCPFC9 decision on the Standard format for manual position reporting in the event of ALC/MTU Malfunction or Failure (WCPFC9 Summary Report Attachment H) (or its replacement) (VMSMNL RPT)

| MANUAL POSITION REPORTING IN THE EVENT OF ALC/MTU MALFUNCTION OR FAILURE | | | | |
|--------------------------------------------------------------------------------------------------------------------|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|---------------------|
| <i>WCPFC9 agreed standard format for manual position reporting in the event of ALC/MTU Malfunction or Failure:</i> | | | | |
| <i>1 WIN</i> | | <i>5 Latitude – DD-MM-SS (N/S)</i> | | |
| <i>2 Vessel Name</i> | | <i>6 Longitude – DDD-MM-SS (E/W)</i> | | |
| <i>3 Date: dd/mm/yy</i> | | <i>7 Activity (Fishing/Searching/Transit/Transshipping)</i> | | |
| <i>4 Time: 24 hour format HH:MM (UTC)</i> | | | | |
| Field name | Field format | Field description/instructions | Example | Ref. in CMMs |
| VID | Number (integer) | This number is generated automatically by the WCPFC Record of Fishing Vessels (RFV), and is now a field that in accordance with CMM 2014-03 is displayed, for all vessels on the WCPFC RFV. | 10503 | 2014-03** |
| WCPFC Identification Number (WIN) | Text | Vessel identifier assigned by flag State in accordance with CMM 2004-03, in UPPER CASE | ABC1234 | 2013-10: 6(a) |
| Vessel Name | Text | Name of the fishing vessel as indicated on flag State registration, in UPPER CASE | SEA MAPLE II | 2013-10: 6(a) |
| Date/Time | Number (integer) | Of anticipated point of entry or exit, in UTC and 24 hour format (ISO 8601) [YYYY]-[MM]-[DD]T[HH]:[MM]Z | 2014-01-24T23:00Z | 2014-01: Att C 03 |
| Latitude | Number (integer) | Positions to degrees and minutes to 3 decimal places (ISO 6709) +/- DDMM.MMM | - 14.166 <i>(for 14-10-00 S)</i> | 2014-01: Att C 03 |
| Longitude | Number (integer) | Positions to degrees and minutes to 3 decimal places (ISO 6709) +/- DDDMM.MMM | - 157.45 <i>(for 157-27-00 W)</i> | 2014-01: Att C 03 |
| Activity | Text | Enter “FISHING” Enter “SEARCHING” Enter “TRANSIT” Enter “TRANSHIPPING” | TRANSIT | WCPFC9 decision |

** - VID is an additional data field and is necessary to support operational “upload” into WCPFC databases

Attachment 2. Electronic Formatting Specifications for EHSPSMARPT, HSP1SMARPT and VMSMNLRPT

These specifications describe the electronic files that CCMs must provide if they choose to use electronic reporting technologies to meet the following WCPFC reporting requirements:

- i. Paragraph 2 of CMM 2010-02 *Conservation and Management Measure for the Eastern High Seas Pocket Special Management Area* (CMM 2010-02: 02)
- ii. Attachment C paragraph 3 of CMM 2014-01 *Conservation and Management Measure for Bigeye, Yellowfin and Skipjack tuna in the Western and Central Pacific Ocean* (CMM 2014-01: Att C 03); and
- iii. WCPFC9 decision on the *Standard format for manual position reporting in the event of ALC/MTU Malfunction or Failure* (WCPFC9 Summary Report Attachment H) to meet (CMM 2014-02 9a VMS SSPs 5.4 - 5.5).

A) File type

The information must be provided in one of the following formats:

Microsoft Excel file ; Comma separated values (CSV) file ; Text file

B) File name

The name of the file must be: XX_ VID_XXXXXXXX_ DDMMYYYY.sssss

where:

- XX – two letter ISO country code (CMM 2014-03 Att 7) of the CCM providing the file
- VID – five digit integer assigned number for a vessels record on the WCPFC Record of Fishing Vessels (RFV) (CMM 2014-03)
- XXXXXXXXXXX – a ten digit code to represent the type of CMM reporting requirement
 - EHSPSMARPT – CMM 2010-02: 02
 - HSP1SMARPT – CMM 2014-01: Att C 03
 - VMSMNLRPT – VMS manual report for ALC failure or malfunction (CMM 2014-02 9a VMS SSPs 5.4 - 5.5)
- DDMMYYYY – the date of the provision of the file
- sssss – the standard file suffix (xls or xlsx if Excel file; csv if CSV file; txt if Text file)

For example:

CK_5936_EHSPSMARPT_11082013.xlsx (Excel file Eastern High Sea Pocket Special Management Area Report provided by Cook Islands for vessel with VID 5936, on 11 August 2013)

C) File content and structure

Each record in the electronic file represents a single report. Each record must have the structure specified in Attachment 1A, 1B or 1C, including the same sequence of fields.

Sample electronic reporting files with the proper formats are available from the Secretariat.

Attachment 5

CONSULTATION DOCUMENT: DRAFT – SSPs FOR ELECTRONIC REPORTING IN THE WCPFC_{as} amended by
ERandEMWG1

Attachment 3A. Electronic data standard to be used for WCPFC ROP Minimum Standard Data Fields, as amended by WCPFC11 decisions.

Western and Central Pacific Fisheries Commission (WCPFC)

E-REPORTING STANDARD DATA FIELDS

OPERATIONAL OBSERVER DATA

Draft – Version 1.0

10th June 2015

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INTRODUCTION

These tables set out the proposed standards for the provision of operational OBSERVER data fields collected in the WCPFC tropical purse seine and the longline fisheries through E-Reporting. These tables provide the minimum requirements for data entities, data formats and data validation to be established for data submitted to the national and regional fisheries authorities from E-Reporting systems. The data fields contained herein are based on information collected under the current regional standard data collection forms. This document acknowledges that national fisheries authorities require certain data fields that are not mandatory WCPFC Regional Observer Programme (ROP) data fields (for example, for anticipated Catch Documentation System – CDS – requirements), so a column in these tables identifies whether the data field is a mandatory WCPFC data field¹ or not.

These E-Reporting data field standards are consistent with, and should be considered in conjunction with more detailed instructions² on how to collect observer data provided by SPC.

These tables are intended for, *inter alia*, E-Reporting service providers who have been contracted to provide electronic systems to record OBSERVER data collected on-board purse seine vessels.

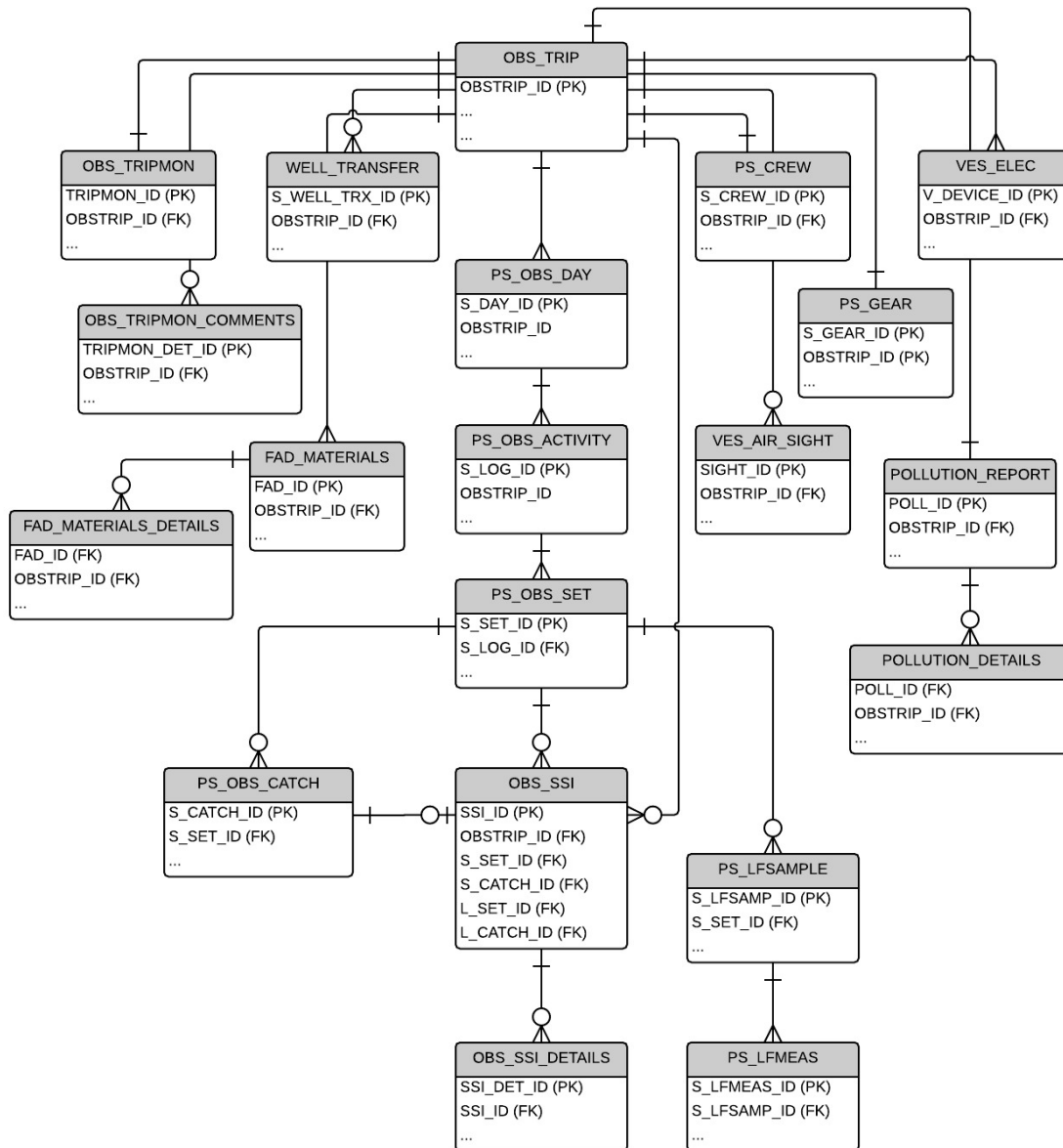
¹ The minimum standard WCPFC Regional Observer programme (ROP) data fields for purse seine data are found in the “WCPFC ROP Minimum Standard Data Fields & Instructions” <http://www.wcpfc.int/doc/table-rop-data-fields-including-instructions>

² In addition to the minimum WCPFC ROP data fields, instructions for observer data collection in the WCPFC Area are available with the regional standard observer data collection forms at <http://www.spc.int/oceanfish/en/data-collection/241-data-collection-forms>, general information/instruction for observers at <http://www.spc.int/OceanFish/en/ofpsection/fisheries-monitoring/observers> and <http://www.spc.int/OceanFish/en/certification-and-training-standards>.

1. PURSE SEINE OBSERVER E-REPORTING STANDARDS

1.1 DATA MODEL DIAGRAM

The following basic data model diagram outlines the structure of the entities and their relationships for purse seine operational OBSERVER data collected by E-Reporting systems and submitted to national and regional fisheries authorities. The tables that follow provide more information on the mechanisms of the links (relationships) between the entities.



1.2 TRIP-LEVEL DATA

| OBS_TRIP | | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-------------|
| “The start of a trip is defined to occur when a vessel (a) leaves port after unloading part or all of the catch to transit to a fishing area or (b) recommences fishing operations or transits to a fishing area after transshipping part or all of the catch at sea (when this occurs in accordance with the terms and conditions of article 4 of Annex III of the Convention, subject to specific exemptions as per article 29 of the Convention).” | | | | | |
| FIELD | Data Collection Instructions | Field format notes | Validation rules | XML TAG | WCPFC FIELD |
| TRIP IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE | | | <OBSTRIP_ID> | Y |
| OBSPRG_CODE | <p>OBSERVER SERVICE PROVIDERS identification- National or sub-regional observer programmes</p> <p>For national programmes, this is the COUNTRY_CODE + 'OB' for example, 'PJOB' - for the PNG national observer programme.</p> <p>For Sub-regional programmes, the following codes are used.</p> <p>'TTOB' - US Multilateral Treaty Observer programme</p> <p>'FAOB' - FSM Arrangement Observer Programme</p> | Char (4) | <p>Observer programme code must be must valid country.</p> <p>Refer to valid ISO two-letter Country Codes - ISO 3166 For example, refer to http://en.wikipedia.org/wiki/ISO_3166-1</p> | <OBSPRG_CODE> | Y |
| STAFF_CODE | Observer field staff NAME CODE. This will be unique and link to information kept at the regional level including Observer Name, Nationality of observer, Observer provider. | VarChar (5) | <p>Staff code must exist in the regional Observer (FIELD_STAFF) Name Table.</p> <p>The unique 5-letter staff codes are generated and maintained by SPC/FFA.</p> | <STAFF_CODE> | Y |
| TRIPNO | <p>Unique TRIPNO for each observer in a given year (Regional Standard)</p> <p>Use the last two digits of the trip year followed by a dash and increment number for each trip in a year <u>FOR THAT OBSERVER</u>. YY-XX, for example, '14-01' would represent the first trip for an observer in the calendar year 2014</p> | Char (5) | Must adhere to the regional standard | <TRIPNO> | N |
| TRIPNO_INTERNAL | TRIPNO as allocated and used by the respective Observer service provider. (If this system is different from the regional standard (e.g. the US PS MLT observer programme trip number uses the format '24LP/xxx') | VarChar (15) | | <TRIPNO_INT> | N |

OBS_TRIP

"The start of a trip is defined to occur when a vessel (a) leaves port after unloading part or all of the catch to transit to a fishing area or (b) recommences fishing operations or transits to a fishing area after transshipping part or all of the catch at sea (when this occurs in accordance with the terms and conditions of article 4 of Annex III of the Convention, subject to specific exemptions as per article 29 of the Convention)."

| FIELD | Data Collection Instructions | Field format notes | Validation rules | XML TAG | WCPFC FIELD |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------|
| DATE and TIME OF DEPARTURE | Depart DATE/TIME for the observer trip (Observer's departure) Vessel depart date/time will be obtained from other sources of data (e.g. VMS Data) | REFER TO APPENDIX A1 | Use UTC DATE for the departure date. | <DEP_DATE> | Y |
| DATE AND TIME OF ARRIVAL IN PORT | Return DATE/TIME for the observer trip (from the observer's point of view) Vessel return date/time will be obtained from other sources of data (e.g. VMS Data) | REFER TO APPENDIX A1 | Use UTC DATE for the return date. DD/MM/YY | <RET_DATE> | Y |
| GEAR_CODE | Link to ref_gears table | Char (1) | Must be a valid GEAR: 'L' - Longline; 'S' - Purse seine; 'P' - Pole-and-line | <GEAR_CODE> | Y |
| FISHING PERMIT/LICENSE NUMBERS | PROVIDE License/Permit number that the vessel holds for the period of the TRIP. | CHAR(40) UPPER CASE | Where possible, include validation to ensure the Permit format relevant to the agreement (national or sub-regional) complies to the required format. | <LICENSE_NO> | N |
| VESSEL IDENTIFIER | | REFER TO APPENDIX A4 | | | |
| VERSN ID | Data standards version | Int | | <VERSN_ID> | N |
| COUNTRY_CODE | Two letter COUNTRY CODE for the country who organise the trip | Char (2) | Refer to valid ISO two-letter Country Codes - ISO 3166 For example, refer to http://en.wikipedia.org/wiki/ISO_3166-1 | <COUNTRY_CODE> | Y |
| PORT OF DEPARTURE | PROVIDE the Port of Departure | REFER TO APPENDIX A3 | Must be valid United Nations - Code for Trade and Transport Locations (UN/LOCODE) - see http://www.unece.org/cefact/locode/service/location | <DEP_PORT> | Y |
| PORT OF RETURN | PROVIDE the Port of Return for Unloading | REFER TO APPENDIX A3 | Must be valid United Nations - Code for Trade and Transport Locations (UN/LOCODE) | <RET_PORT> | Y |
| DEP_LAT | The actual depart LAT position for the trip (if departing AT SEA) | REFER TO APPENDIX A2 | | <DEP_LAT> | Y |
| DEP_LON | The actual depart LON position for the trip (if departing AT SEA) | REFER TO APPENDIX A2 | | <DEP_LON> | Y |
| RET_LAT | The actual return LAT position for the trip (if departing AT SEA) | REFER TO APPENDIX A2 | | <RET_LAT> | Y |
| RET_LON | The actual return LON position for the trip (if departing AT SEA) | REFER TO APPENDIX A2 | | <RET_LON> | Y |
| VESOWNER | NAME of the vessel owner | NVarChar (50) | | <VESOWNER> | Y |
| VESCAPTAIN | NAME of the captain of the vessel | NVarChar (50) | | <VESCAPTAIN> | Y |
| VESCAPT_NATION | NATIONALITY of the captain of the vessel | Char (2) | Refer to valid ISO two-letter Country | <VESCAPT_CO_CODE> | Y |

OBS_TRIP

“The start of a trip is defined to occur when a vessel (a) leaves port after unloading part or all of the catch to transit to a fishing area or (b) recommences fishing operations or transits to a fishing area after transshipping part or all of the catch at sea (when this occurs in accordance with the terms and conditions of article 4 of Annex III of the Convention, subject to specific exemptions as per article 29 of the Convention).”

| FIELD | Data Collection Instructions | Field format notes | Validation rules | XML TAG | WCPFC FIELD |
|----------------|-------------------------------------------------------------------------------------------------------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------|
| | Two letter COUNTRY CODE for the country who organise the trip | | Codes - ISO 3166 For example, refer to http://en.wikipedia.org/wiki/ISO_3166-1 | | |
| VESCAPT_ID_DOC | Captain's Document ID | NVarChar (20) | | <VESCAPT_ID_DOC> | Y |
| VESMASTER | NAME of the fishing master | NVarChar (50) | | <VESMASTER> | |
| VESMAST_NATION | NATIONALITY of the vessel MASTER Two letter COUNTRY CODE for the country who organise the trip | Char (2) | Refer to valid ISO two-letter Country Codes - ISO 3166 For example, refer to http://en.wikipedia.org/wiki/ISO_3166-1 | <VESCAPT_CO_CODE> | Y |
| VESMAST_ID_DOC | FISHING MASTERS's Document ID | NVarChar (20) | | <VESCAPT_ID_DOC> | Y |
| CREW_NUMBER | Total number of CREW onboard during the trip | Int | | <CREW_NUMBER> | Y |
| SPILL | FLAG to indicated the trip was a SPILL SAMPLE trip | Bit | | <SPILL> | N |
| CADET | FLAG to indicated whether the trip was observed by a CADET observer | Bit | | <CADET> | N |
| SHARKTARGET | FLAG to indicated a trip has targeted SHARKS (LONGLINE trips only) | Bit | | <SHARKTARGET> | N |
| COMMENTS | General comments about the trip | NText | | <COMMENTS> | N |

1.3 DAILY SUMMARY DATA

| PS OBS DAY | | | | | |
|----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|-----------------------------------------|------------------|-------------|
| The observer must provide the information in this table (daily logged DAY) for EACH DAY AT SEA for the period of the trip. | | | | | |
| FIELD | Data Collection Instructions | Field format notes | Validation rules | XML TAG | WCPFC FIELD |
| TRIP IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE | | | <OBSTRIP_ID> | Y |
| DAY LOG IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE + LOCAL DAY LOG DATE | | | <S_DAY_ID> | Y |
| DAY_START | Local Date and time at the start of the logged date. | REFER TO APPENDIX A1 | | <START_DATE> | Y |
| UTC DAY START | UTC equivalent of DAY START | REFER TO APPENDIX A1 | | <UTC_START_DATE> | Y |
| LOG_NOFISH_N | For the entire logged day, provide the Number of logs sighted but no schools association. | SmallInt | | <LOG_NOFISH_N> | Y |
| LOG_FISH_N | For the entire logged day, provide the Number of log associated schools sighted. | SmallInt | | <LOG_FISH_N> | Y |
| SCH_FISH_N | For the entire logged day, provide the | SmallInt | | <SCH_FISH_N> | Y |
| FAD_FISH_N | For the entire logged day, provide the Number of anchored FADs sighted. | SmallInt | | <FAD_FISH_N> | Y |
| FAD_NOFISH_N | For the entire logged day, provide the Number of anchored FADs sighted but no schools association. | SmallInt | | <FAD_NOFISH_N> | Y |
| GEN3TODAY_ANS | For the entire logged day, provide the FLAG to indicate that incident has occurred on GEN3. | Char (1) | Must be consistent with the GEN-3 data. | <GEN3TODAY_ANS> | N |
| DIARYPAGE | Journal page # which has detail explanations of the incident | VarChar (50) | | <DIARYPAGE> | N |

1.4 ACTIVITY LOG DATA

| PS OBS ACTIVITY | | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------|
| The observer must PROVIDE a record of EACH change in ACTIVITY for EACH DAY AT SEA for the period of the trip. This is effectively the OBSERVER's ACTIVITY LOG | | | | | |
| FIELD | Data Collection Instructions | Field format notes | Validation rules | XML TAG | WCPFC FIELD |
| TRIP IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE | | | <OBSTRIP_ID> | Y |
| ACTIVITY LOG IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE + DAY LOG DATE + ACTIVITY LOG TIME | | | <S_LOG_ID> | Y |
| ACT_DATE | Local/Ship's date and time of Activity log recording. | REFER TO APPENDIX A1 | Must be consistent with the start of DAY log DATE | <ACT_DATE> | Y |
| UTC_ACT_DATE | UTC equivalent of ACT DATE | REFER TO APPENDIX A1 | | <UTC_ACT_DATE> | Y |
| LAT | Latitude at which this ACTIVITY LOG recorded | REFER TO APPENDIX A2 | | <LAT> | Y |
| LON | Longitude at which this ACTIVITY LOG recorded. | REFER TO APPENDIX A2 | | <LON> | Y |
| S_ACTIV_ID | Purse seine activity code. | REFER TO APPENDIX A5 | | <S_ACTIV_ID> | Y |
| SCHAS_ID | School association code. | REFER TO APPENDIX A6 | | <SCHAS_ID> | Y |
| DETON_ID | Detection id. code. Must be 1-6 or 0 for no information. | REFER TO APPENDIX A7 | | <DETON_ID> | Y |
| BEACON | Beacon number where | NVarChar (20) | Can only be recorded where an activity is related to an event for investigating, deploying, retrieving or setting on a floating object. REFER TO APPENDIX A5 | <BEACON> | N |
| COMMENTS | Observer comments related to this activity | NText | | <COMMENTS> | N |

1.5 SET-LEVEL DATA

| PS OBS SET | | | | | | |
|------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|--------------------------------------|----------------------------------------------------------------------------------------------------------------|-----------------|-------------|
| The observer must PROVIDE the following information for EACH FISHING SET for the period of the trip. | | | | | | |
| FIELD | Data Collection Instructions | | Field format notes | Validation rules | XML TAG | WCPFC FIELD |
| TRIP IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE | | | | <OBSTRIP_ID> | Y |
| SET IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE + SET START DATE + SET START TIME | | | Must be consistent with PS_OBS_ACTIVITY record where S_ACTIV_ID = 1 (A fishing set). | <S_SET_ID> | Y |
| SET NUMBER | Unique # for the SET ni this trip | | Int | | <SET_NUMBER> | N |
| SKIFFOFF_TIME | DEFINED as the START of SET - Local DATE/Time when net skiff off with net | | REFER TO APPENDIX A1 | | <SKIFFOFF_TIME> | Y |
| SKIFFOFF UTC | UTC DATE & TIME of START of SET | | REFER TO APPENDIX A1 | Must be aligned to SKIFFOFF_TIME | <SKIFFOFF.UTC> | Y |
| WINCHON_TIME | LOCAL DATE/TIME when winches start to haul the net. | | REFER TO APPENDIX A1 | | <WINCHON_TIME> | Y |
| WINCHON.UTC | UTC DATE & TIME when winches start to haul the net. | | REFER TO APPENDIX A1 | Must be aligned to WINCHON_TIME | <WINCHON.UTC> | Y |
| RINGUP_TIME | LOCAL DATE/TIME when purse ring is raised from the water. | | REFER TO APPENDIX A1 | | <RINGUP_TIME> | Y |
| RINGUP.UTC | UTC DATE & TIME when purse ring is raised from the water. | | REFER TO APPENDIX A1 | Must be aligned to RINGUP_TIME | <RINGUP.UTC> | Y |
| SBRAIL_TIME | LOCAL DATE/TIME when brailing begins. | | REFER TO APPENDIX A1 | | <SBRAIL_TIME> | Y |
| SBRAIL.UTC | UTC DATE & TIME when brailing begins. | | REFER TO APPENDIX A1 | Must be aligned to SBRAIL_TIME | <SBRAIL.UTC> | Y |
| EBRAIL_TIME | LOCAL DATE/TIME when brailing ends. | | REFER TO APPENDIX A1 | | <EBRAIL_TIME> | Y |
| EBRAIL.UTC | UTC DATE & TIME when brailing ends. | | REFER TO APPENDIX A1 | Must be aligned to EBRAIL_TIME | <EBRAIL.UTC> | Y |
| STOP_TIME | LOCAL DATE/TIME for the END of SET - Time when net skiff comes on-board i.e. end of set. | | REFER TO APPENDIX A1 | | <STOP_TIME> | Y |
| STOP.UTC | UTC DATE & TIME - Date & Time when net skiff comes on-board i.e. end of set. | | REFER TO APPENDIX A1 | Must be aligned to STOP_TIME | <STOP.UTC> | Y |
| LD_BRAILS | Sum of all brails | | Decimal (8,3) | | <LD_BRAILS> | N |
| LD_BRAILS2 | Sum of brails (#2) - only where a second type of brailer was used | | Decimal (8,3) | | <LD_BRAILS2> | N |
| MTTOTAL_OBS | Total observed catch (TUNA and BYCATCH) (mt) | | Decimal (8,3) | | <MT_TOTAL_OBS> | Y |
| MTTUNA_OBS | TOTAL amount of TUNA observed (mt) | | Decimal (8,3) | Derived from and consistent with MTTOTAL_OBS minus all the bycatch (mt) listed under PS_OBS_CATCH for this SET | <MTTUNA_OBS> | Y |
| TOTSKJ_ANS | SKIPJACK | FLAG to indicate whether SKJ is presence in the set catch | Char (1) | | <TOTSKJ_ANS> | Y |
| PERC_SKJ | | % of SKJ in the set catch | Int | | <PERC_SKJ> | Y |
| MTSKJ_OBS | | Metric Tonnes of SKJ in the set catch | Decimal (8,3) | Determined from MTTUNA_OBS and PERC_SKJ fields | <MTSKJ_OBS> | Y |
| TOTYFT_ANS | YEL LOW FIN | FLAG to indicate whether YFT is presence in the set catch | Char (1) | | <TOTYFT_ANS> | Y |
| PERC_YFT | | % of YFT in the set catch | Int | | <PERC_YFT> | Y |

PS_OBS_SET

The observer must PROVIDE the following information for EACH FISHING SET for the period of the trip.

| FIELD | Data Collection Instructions | Field format notes | Validation rules | XML TAG | WCPFC FIELD | |
|----------------|---------------------------------------|-----------------------------------------------------------|------------------------------------------------|------------------------------------------------|------------------|---|
| MTYFT_OBS | Metric Tonnes of YFT in the set catch | Decimal (8,3) | Determined from MTTUNA_OBS and PERC_YFT fields | <MTYFT_OBS> | Y | |
| LARGE_YFT_ANS | | Char (1) | | <LARGE_YFT_ANS> | Y | |
| PERC_LARGE_YFT | | Int | | <PERC_LARGE_YFT> | Y | |
| NB_LARGE_YFT | | Int | | <NB_LARGE_YFT> | Y | |
| TOTBET_ANS | BIGEYE | FLAG to indicate whether BET is presence in the set catch | Char (1) | <TOTBET_ANS> | Y | |
| PERC_BET | | % of BET in the set catch | Int | <PERC_BET> | Y | |
| MTBET_OBS | | Metric Tonnes of BET in the set catch | Decimal (8,3) | Determined from MTTUNA_OBS and PERC_BET fields | <MTBET_OBS> | Y |
| LARGE_BET_ANS | | FLAG to indicate BET in the set catch | Char (1) | | <LARGE_BET_ANS> | Y |
| PERC_LARGE_BET | | % of large BET in the set catch | Int | | <PERC_LARGE_BET> | Y |
| NB_LARGE_BET | | # of large BET in the set catch | Int | | <NB_LARGE_BET> | Y |
| COMMENTS | | comments | NText | | <COMMENTS> | N |
| B_NBTAGS | | Number of tags | SmallInt | | <B_NBTAGS> | Y |

1.6 SET CATCH DATA

| PS_OBS_CATCH | | | | | |
|--------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-------------|
| The observer must PROVIDE the following CATCH DETAILS for EACH FISHING SET for the period of the trip. | | | | | |
| FIELD | Data Collection Instructions | Field format notes | Validation rules | XML TAG | WCPFC FIELD |
| TRIP IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE | | | <OBSTRIP_ID> | Y |
| SET IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE + SET START DATE + SET START TIME | | Must be consistent with PS_OBS_ACTIVITY record where S_ACTIV_ID = 1 (A fishing set). | <S_SET_ID> | Y |
| CATCH IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE + SET START DATE + SET START TIME + SPECIES CODE + FATE CODE | | | <S_CATCH_ID> | Y |
| SP_CODE | Species code. | Char (3) | REFER TO APPENDIX 8. | <SP_CODE> | Y |
| FATE_CODE | FATE of this catch. This indicates whether it was RETAINED, DISCARDED or ESCAPED, and any specific processing. | Char (3) | REFER TO APPENDIX 9 | <FATE_CODE> | Y |
| COND_CODE | CONDITION of this catch. Relevant for the Species of Special Interest. | Char (2) | REFER TO APPENDIX 10 | <COND_CODE> | Y |
| OBS_MT | Observer's visual estimate of TOTAL Species catch in metric tonnes. OBTAINED from the visual estimate of % of TUNA SPECIES in the respective fields for SKJ, YFT and BET in the table PS_OBS_SET. For BYCATCH species, this is the visual estimate, where relevant. | Decimal (8,3) | | <OBS_MT> | Y |
| OBS_N | Species catch (in numbers). OBTAINED from the visual estimate, which may be relevant for DISCARDS of TUNA, the discards/retained catch of BILLFISH and most other bycatch species. Entry into this field is mandatory for any Species of Special interest. | Int | For Species of Special interest (Mammals, Turtles, Birds and Sharks) there must be a corresponding set of records in the Species of Special interest table. | <OBS_N> | Y |
| COMMENTS | Are there any comments for this species catch ? (Y/N) | NText | | <COMMENTS> | N |

1.7 SPECIES OF SPECIAL INTEREST DATA

| OBS_SSI | | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-------------|
| The observer must PROVIDE the following SPECIES OF SPECIAL INTEREST CATCH DETAILS for EACH FISHING SET for the period of the trip. There may be one or many records for each SSI record in PS_OBS_CATCH. When SIGHTED only, then this table is linked to the OBS_TRIP database table. | | | | | |
| FIELD | Data Collection Instructions | Field format notes | Validation rules | XML TAG | WCPFC FIELD |
| TRIP IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE | | | <OBSTRIP_ID> | Y |
| SET IDENTIFIER - PS | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE + SET START DATE + SET START TIME | | To be used to link to PS OBS SET when relevant When SGTYPE = 'L' or 'I' Must be consistent with PS_OBS_ACTIVITY record where S_ACTIV ID = 1 (A fishing set). | <S_SET_ID> | Y |
| CATCH IDENTIFIER - PS | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE + SET START DATE + SET START TIME + SPECIES CODE + FATE CODE | | To be used to link to PS OBS CATCH when relevant When SGTYPE = 'L' or 'I' Must be a link to the corresponding PS_OBS_CATCH record for this SSI | <S_CATCH_ID> | Y |
| SET IDENTIFIER - LL | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE + SET START DATE + SET START TIME | | To be used to link to LL_OBS_SET when relevant When SGTYPE = 'L' or 'I' Must be consistent with PS_OBS_ACTIVITY record where S_ACTIV ID = 1 (A fishing set). | <L_SET_ID> | Y |
| CATCH IDENTIFIER - LL | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE + SET START DATE + SET START TIME + SPECIES CODE + FATE CODE | | To be used to link to LL OBS CATCH when relevant When SGTYPE = 'L' or 'I' Must be a link to the corresponding PS_OBS_CATCH record for this SSI | <L_CATCH_ID> | Y |
| SSI CATCH IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE + DAY LOG + SIGHTING TIME + SPECIES CODE + FATE CODE | | | <SSI_ID> | Y |
| SGTYPE | Type of Interaction : 'L' - Landed; "S"- Sighted; "I" - Interacted with Gear | Char (1) | Must be 'L' - Landed; "S"- Sighted; "I" - Interacted with Gear | <SGTYPE> | Y |
| SGTIME | Time of Interaction : 'L' - Time of Landing; "I" - Time of Interaction / sighting | Char (1) | | <SGTIME> | Y |
| SSI_DATE | Local/Ship's date and time when | REFER TO | When SGTYPE = 'L' or 'I' | <SSI_DATE> | Y |

OBS_SSI

The observer must PROVIDE the following SPECIES OF SPECIAL INTEREST CATCH DETAILS for EACH FISHING SET for the period of the trip. There may be one or many records for each SSI record in PS_OBS_CATCH. When SIGHTED only, then this table is linked to the OBS TRIP database table.

| FIELD | Data Collection Instructions | Field format notes | Validation rules | XML TAG | WCPFC FIELD |
|-------------------|----------------------------------------------------------------------------------------------|--------------------------------------|-----------------------------------------------------------------------------------------------|---------------------|-------------|
| | this SSI was encountered. | APPENDIX A1 | Must be consistent with PS_OBS_ACTIVITY record - ACT_DATE | | |
| UTC_SSI_DATE | UTC equivalent of SSI_DATE | REFER TO APPENDIX A1 | When SGTYPE = 'L' or 'I' Must be consistent with PS_OBS_ACTIVITY record - UTC ACT_DATE | <UTC_SSI_DATE> | Y |
| LAT | Latitude at which this SSI was encountered | REFER TO APPENDIX A2 | When SGTYPE = 'L' or 'I' Must be consistent with PS_OBS_ACTIVITY record - LAT | <LAT> | Y |
| LON | Longitude at which this SSI was encountered | REFER TO APPENDIX A2 | When SGTYPE = 'L' or 'I' Must be consistent with PS_OBS_ACTIVITY record - LON | <LON> | Y |
| SP_CODE | SSI Species encountered. Link to species table | Char (3) | REFER TO APPENDIX 8. Must correspond to the PS_OBS_CATCH record | <SP_CODE> | Y |
| SP_DESC | Extended Species Description | NText | | <SP_DESC> | N |
| LANDED_COND_CODE | Condition code on LANDING | Char (2) | REFER TO APPENDIX 10 | <LANDED_COND_CODE> | Y |
| LANDED_COND_DESC | Description of Condition on Landing or at start of interaction with vessel's gear | NText | | <LANDED_COND_DESC> | Y |
| LANDED_HANDLING | Description of handling on landing | NText | | <LANDED_HANDLING> | N |
| LANDED_LEN | Length of landed species | Decimal (5,1) | | <LANDED_LEN> | Y |
| LEN_CODE | Length code of the individual | Char (2) | REFER TO APPENDIX 11 | <LEN_CODE> | Y |
| LANDED_SEX_CODE | Sex code of the individual | Char (1) | REFER TO APPENDIX 12 | <LANDED_SEX_CODE> | Y |
| DISCARD_COND_CODE | Condition code on RELEASE/DISCARD, or at the END of interaction with vessel's gear | Char (2) | REFER TO APPENDIX 10 | <DISCARD_COND_CODE> | Y |
| DISCARD_COND_DESC | Description of Condition on RELEASE/DISCARD, or at the END of interaction with vessel's gear | NText | | <DISCARD_COND_DESC> | Y |
| SHK_FIN_WT_KGS | Estimated SHARK FIN WEIGHT (kgs) | Decimal (5,0) | | <SHK_FIN_WT_KGS> | Y |
| SHK_FIN_BODY_KGS | Estimated SHARK CARCASS WEIGHT (kgs) | Decimal (5,0) | | <SHK_FIN_BODY_KGS> | Y |
| TAG_RET_NO | Tag Number recovered from animal | NVarChar (7) | | <TAG_RET_NO> | Y |
| TAG_RET_TYPE | Type of Tag recovered from animal | NVarChar (5) | | <TAG_RET_TYPE> | Y |
| TAG_RET_ORG | Origin of Tag recovered from animal (Organisation) | NVarChar (10) | | <TAG_RET_ORG> | Y |
| TAG_PLACE_NO | Tag number placed on animal | NVarChar (14) | | <TAG_PLACE_NO> | Y |
| TAG_PLACE_TYPE | Type of Tag placed on animal | NVarChar (8) | | <TAG_PLACE_TYPE> | Y |
| TAG_PLACE_ORG | Origin of Tag placed on animal (Organisation) | NVarChar (10) | | <TAG_PLACE_ORG> | Y |
| INTACT_ID | Vessel activity when INTERACTION occurs | Int | REFER TO APPENDIX 13 | <INTACT_ID> | Y |

OBS_SSI

The observer must PROVIDE the following SPECIES OF SPECIAL INTEREST CATCH DETAILS for EACH FISHING SET for the period of the trip. There may be one or many records for each SSI record in PS_OBS_CATCH. When SIGHTED only, then this table is linked to the OBS_TRIP database table.

| FIELD | Data Collection Instructions | Field format notes | Validation rules | XML TAG | WCPFC FIELD |
|-----------------|----------------------------------------------------------------|--------------------|------------------------------------------------|-------------------|-------------|
| INTACT_OTHER | Other types of interaction | NVarChar (20) | | <INTACT_OTHER> | Y |
| INT_DESCRIBE | Description of the interaction | NText | | <INT_DESCRIBE> | Y |
| SGACT_ID | Vessel activity when SIGHTING occurs | Int | REFER TO APPENDIX 13 | <SGACT_ID> | Y |
| SGACT_OTHER | Indicates "other" Vessel Activity | NVarChar (20) | | <SGACT_OTHER> | N |
| SIGHT_N | Number of individuals sighted | SmallInt | | <SIGHT_N> | Y |
| SIGHT_ADULT_N | Number of adults sighted | SmallInt | | <SIGHT_ADULT_N> | N |
| SIGHT_JUV_N | Number of juveniles sighted | SmallInt | | <SIGHT_JUV_N> | N |
| SIGHT_LEN | Estimated overall length (Average if more than one individual) | NText | | <SIGHT_LEN> | N |
| SIGHT_DIST | Distance of sighted animals from vessel | Decimal (7,3) | | <SIGHT_DIST> | N |
| SIGHT_DIST_UNIT | Units used for SIGHT DIST | INT | 1 = Metres; 2 = kilometres; 3 = Nautical miles | <SIGHT_DIST_UNIT> | N |
| SIGHT_DIST_NM | Distance in nautical miles | Decimal (10,4) | | <SIGHT_DIST_NM> | N |
| SIGHT_BEHAV | Description of behaviour of Sighted animals | NText | | <SIGHT_BEHAV> | N |

1.8 SPECIES OF SPECIAL INTEREST DETAILS DATA

| OBS_SSI_DETAILS | | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------------------------------------|---------------|-------------|
| The observer must PROVIDE the following SPECIES OF SPECIAL INTEREST CATCH DETAILS for EACH FISHING SET for the period of the trip. The specific detail of each interaction needs to be recorded/stored here. | | | | | |
| FIELD | Data Collection Instructions | Field format notes | Validation rules | XML TAG | WCPFC FIELD |
| TRIP IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE | | | <OBSTRIP_ID> | Y |
| SSI CATCH IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE + DAY LOG + SIGHTING TIME + SPECIES CODE + FATE CODE | | Link to OBS_SSI table | <SSI_ID> | Y |
| SSI DETAILS IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE + DAY LOG + SIGHTING TIME + SPECIES CODE + FATE CODE | | | <SSI_DET_ID> | Y |
| START_END | Indication of "START" or "END" of interaction | Char (1) | Must be either 'S' for START or 'E' for END | <START_END> | Y |
| SSI_NUMBER | Number of animals interacted | Int | | <SSI_NUMBER> | Y |
| COND_CODE | CONDITION at the point of recording (either START or END) | Char (2) | REFER TO APPENDIX 10 | <COND_CODE> | Y |
| DESCRIPTION | Descriptions of the interaction | VarChar (100) | | <DESCRIPTION> | N |

1.9 LENGTH SAMPLE DATA

| PS_LFSAMPLE | | | | | |
|------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------------------------|---------------------|-------------|
| PROVIDE the information related to the size (length) and species composition SAMPLE from each FISHING SET. | | | | | |
| FIELD | Data Collection Instructions | Field format notes | Validation rules | XML TAG | WCPFC FIELD |
| TRIP IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE | | | <OBSTRIP_ID> | Y |
| SET IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE + SET START DATE + SET START TIME | | | <S_SET_ID> | Y |
| LF SAMPLE IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE + DAY LOG + SET START DATE + SET START TIME + SAMPLE_TYPE | | | <S_LFSAMP_ID> | Y |
| SAMPLETYPE ID | Sample Type | CHAR(1) | REFER TO APPENDIX 14 | <SAMPLETYPE_ID> | Y |
| OTHER_DESC | Description other sampling type | NText | | <OTHER_DESC> | N |
| FISH_PER_BRAIL | Target # of fish for sampling | SmallInt | | <FISH_PER_BRAIL> | N |
| MEASURE_CODE | MEASURING INSTRUMENT | Char (1) | REFER TO APPENDIX 15 | <MEASURE_CODE> | N |
| COMMENTS | Comments about the sampling | NText | | <COMMENTS> | N |
| BRAIL_FULL_N | # of Full brail count | SmallInt | | <BRAIL_FULL_N> | N |
| BRAIL_78_N | # of Seven eighths brail count | SmallInt | | <BRAIL_78_N> | N |
| BRAIL_34_N | # of Three quarter brail count | SmallInt | | <BRAIL_34_N> | N |
| BRAIL_23_N | # of Two third brail count | SmallInt | | <BRAIL_23_N> | N |
| BRAIL_12_N | # of Half brail count | SmallInt | | <BRAIL_12_N> | N |
| BRAIL_13_N | # of One third brail count | SmallInt | | <BRAIL_13_N> | N |
| BRAIL_14_N | # of One quarter brail count | SmallInt | | <BRAIL_14_N> | N |
| BRAIL_18_N | # of One eighth brail count | SmallInt | | <BRAIL_18_N> | N |
| BRAIL_N | Total number of brails | SmallInt | | <BRAIL_N> | N |
| SUM_BRAILS | Sum of All Brails | Decimal (7,2) | | <SUM_BRAILS> | N |
| SAMPLED_BRAIL_NUM | # of sampled brail | Int | | <SAMPLED_BRAIL_NUM> | N |
| MEASURED_N | # of samples measured | Int | | <MEASURED_N> | N |

1.10 INDIVIDUAL LENGTH DATA

| PS_LFMEAS | | | | | |
|---------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------------------------|---------------|-------------|
| PROVIDE the individual fish measurements from the SAMPLE from each FISHING SET. | | | | | |
| FIELD | Data Collection Instructions | Field format notes | Validation rules | XML TAG | WCPFC FIELD |
| TRIP IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE | | | <OBSTRIP_ID> | Y |
| SET IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE + SET START DATE + SET START TIME | | | <S_SET_ID> | Y |
| LF SAMPLE IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE + DAY LOG + SET START DATE + SET START TIME + SAMPLE TYPE | | | <S_LFSAMP_ID> | Y |
| LF MEASURE IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE + DAY LOG + SET START DATE + SET START TIME + SAMPLE TYPE + SEQ_NUMBER | | | <S_LFMEAS_ID> | Y |
| SEQ_NUMBER | Measurement number. | Int | | <SEQ_NUMBER> | N |
| SP_CODE | Link to species table | Char (3) | REFER TO APPENDIX 8. | <SP_CODE> | Y |
| LEN | Length (cm). Expect that the following measurements have been taken by the observers, as instructed. TUNA SPECIES - Upper jaw to fork length; SHARK SPECIES - total length; BILLFISH SPECIES - Lower jaw to fork length for billfish. | SmallInt | | <LEN> | Y |

1.11 TRIP MONITORING QUESTIONS

| OBS_TRIPMON | | | | | |
|------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------------------------------|-----------------|-------------|
| PROVIDE the details of the OBSERVER GEN-3 "OBSERVER VESSEL TRIP MONITORING FORM". One record per question. | | | | | |
| FIELD | Data Collection Instructions | Field format notes | Validation rules | XML TAG | WCPFC FIELD |
| TRIP IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE | | | <OBSTRIP_ID> | Y |
| TRIP MONITORING IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE + UNIQUE SEQ NUMBER | | | <TRIPMON_ID> | Y |
| QUESTION_CODE | Unique CODE for each question in GEN3 | Char (4) | REFER TO APPENDIX 16 | <QUESTION_CODE> | Y |
| ANSWER | FLAG to indicate whether has been answered or NOT | Char (1) | MUST BE 'Y', 'N' or 'X'- not answered | <ANSWER> | Y |
| JOURNAL_PAGE | Detail description of the incident | NText | | <JOURNAL_PAGE> | Y |

1.12 TRIP MONITORING COMMENTS

| OBS_TRIPMON_COMMENTS | | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|------------------|------------------|-------------|
| PROVIDE the details of the OBSERVER GEN-3 "OBSERVER VESSEL TRIP MONITORING FORM". One record per day of trip monitoring reported event/incident. | | | | | |
| FIELD | Data Collection Instructions | Field format notes | Validation rules | XML TAG | WCPFC FIELD |
| TRIP IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE | | | <OBSTRIP_ID> | Y |
| TRIP MONITORING COMMENTS IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE + UNIQUE SEQ NUMBER | | | <TRIPMON_DET_ID> | Y |
| GEN3_DATE | Date of the incident on GEN3 | REFER TO APPENDIX A1 | | <GEN3_DATE> | Y |
| COMMENTS | Detail description of the incident | NText | | <COMMENTS> | Y |

1.13 VESSEL/AIRCRAFT SIGHTINGS DATA

| VES AIR SIGHT | | | | | |
|--------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|--------------------------------------|------------------------------------------------------------------------------------------------------------------------|-----------------|-------------|
| PROVIDE the details on the GEN-1 form -- VESSEL AND AIRCRAFT SIGHTINGS / FISH, BUNKERING and OTHER TRANSFERS LOGS | | | | | |
| FIELD | Data Collection Instructions | Field format notes | Validation rules | XML TAG | WCPFC FIELD |
| TRIP IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE | | | <OBSTRIP_ID> | Y |
| SIGHTING IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE + SIGHT DATE TIME | | | <SIGHT_ID> | Y |
| SIGHT_DATE_TIME | Date/Time of sighting | REFER TO APPENDIX A1 | | <SIGHTING_DATE> | Y |
| LAT | Latitude of SIGHTING | REFER TO APPENDIX A2 | | <LAT> | Y |
| LON | Longitude of SIGHTING | REFER TO APPENDIX A2 | | <LON> | Y |
| VESSEL IDENTIFIER | REFER TO APPENDIX A4 | | | | |
| VATYP_ID | Vessel / Aircraft type | Int | REFER TO APPENDIX 17 | <VATYP_ID> | Y |
| BEARING_DIR | Bearing (0-360 degrees) | SmallInt | | <BEARING_DIR> | Y |
| DISTANCE | Distance | Decimal (7,3) | | <DISTANCE> | Y |
| DIST_UNIT | Units of Distance | INT | 1 = Metres; 2 = kilometres; 3 = Nautical miles | <DIST_UNIT> | Y |
| ACTION_CODE | Action of Vessel/Aircraft sighted | Char (2) | REFER TO APPENDIX 18 for Vessel/Aircraft sightings only - only allow actions where FORM USED = 'GEN-1' | <ACTION_CODE> | Y |
| COMMENTS | Comments | NText | | <COMMENTS> | Y |

1.14 CREW DATA

| PS CREW | | | | | |
|-------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------|
| PROVIDE the details of each PURSE SEINE CREW member on this TRIP. | | | | | |
| FIELD | Data Collection Instructions | Field format notes | Validation rules | XML TAG | WCPFC FIELD |
| TRIP IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE | | | <OBSTRIP_ID> | Y |
| CREW IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE + CREW NAME | | | <S_CREW_ID> | Y |
| VSJOB_ID | CREW JOB TYPE | Int | REFER TO APPENDIX 19 | <VSJOB_ID> | N |
| NAME | Name of the person in this position | NVarChar (50) | | <NAME> | Y |
| COUNTRY_CODE | Nationality of the person in this position | Char (2) | Refer to valid ISO two-letter Country Codes - ISO 3166 For example, refer to http://en.wikipedia.org/wiki/ISO_3166-1 | <COUNTRY_CODE> | Y |
| EXP_YR | Experience in Years | SmallInt | | <EXP_YR> | N |
| EXP_MO | Experience in months | SmallInt | | <EXP_MO> | N |
| COMMENTS | Comments | NText | | <COMMENTS> | N |

1.15 MARINE DEVICES DATA

| VES_ELEC | | | | | |
|-----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|
| PROVIDE information on the standard Marine Electronic devices. | | | | | |
| FIELD | Data Collection Instructions | Field format notes | Validation rules | XML TAG | WCPFC FIELD |
| TRIP IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE | | | <OBSTRIP_ID> | Y |
| TRIP/VESSEL DEVICE IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE + DEVICE ID | | | <V_DEVICE_ID> | Y |
| DEVICE_ID | Marine Device CODE. | Int | Refer to APPENDIX 20 - the DEVICES should only be available according to the respective gear code (e.g. "S" for purse seine or "L" for longline is in the GEAR LIST CODES column) | <DEVICE_ID> | Y |
| ONBOARD_CODE | Is this DEVICE SIGHTED ONBOARD ? | Char (1) | 'Y' or 'N' | <ONBOARD_CODE> | Y |
| USAGE_CODE | Is this DEVICE USED ? | Char (3) | Refer to APPENDIX 21 | <USAGE_CODE> | N |
| MAKE_DESC | Description of Make | NVarChar (30) | | <MAKE_DESC> | N |
| MODEL_DESC | Description of Model | NVarChar (30) | | <MODEL_DESC> | N |
| COMMENTS | Comments | NText | | <COMMENTS> | N |

1.16 WELL TRANSFER DATA

| WELL TRANSFER PROVIDE information for each transfer to/from storage WELLS during the trip. This may become mandatory WCPFC data collection related to CDS. | | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|--------------------------------------|-----------------------------------------------------------------------------------------------------------|-----------------|-------------|
| FIELD | Data Collection Instructions | Field format notes | Validation rules | XML TAG | WCPFC FIELD |
| TRIP IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE | | | <OBSTRIP_ID> | N |
| WELL TRANSFER IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE + TRX_DATE | | | <S_WELL_TRX_ID> | N |
| TRX_DATE | DATE and TIME of fish transfer | REFER TO APPENDIX A1 | | <TRX_DATE> | N |
| ACTION_CODE | WELL TRANSFER ACTION CODE | Char (2) | REFER TO APPENDIX 18 for Well transfers only - only allow actions where FORM USED = 'PS-5 | <ACTION_CODE> | N |
| SOURCE | Fish transfer source Can be the 'NET' and valid well number or a VESSEL | VarChar (80) | Can be the 'NET' and valid well number or a VESSEL | <SOURCE> | N |
| DESTINATION | Description of the transfer destination Can be Well No., vessel, SHORE or DISCARD | VarChar (80) | Can be Well No., vessel, SHORE or DISCARD | <DESTINATION> | N |
| WELL_MT | Weight of the fish transfer | Decimal (8,3) | | <WELL_MT> | N |
| CHANGE | Change of transfer - add or remove | Char (1) | Must be either '+', '-' or '0' (for no change) | <CHANGE> | N |
| NEW_TOTAL | New cumulative to for the transfer | Decimal (8,3) | | <NEW_TOTAL> | N |
| ON_LOGSHEET | FLAG to indicate the transfer has been stated on the logsheet | Char (1) | | <ON_LOGSHEET> | N |
| COMMENTS | Comments made on the fish transfer | NText | | <COMMENTS> | N |

1.17 PURSE SEINE GEAR DATA

| PS GEAR | | | | | |
|------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|--------------------|--------------------------|----------------------|-------------|
| PROVIDE information on the PURSE SEINE GEAR on the vessel. | | | | | |
| FIELD | Data Collection Instructions | Field format notes | Validation rules | XML TAG | WCPFC FIELD |
| TRIP IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE | | | <OBSTRIP_ID> | Y |
| PS GEAR IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE | | | <S_GEAR_ID> | Y |
| PB_MAKE | Power block make | NVarChar (20) | | <PB_MAKE> | N |
| PB_MODEL | Power block model | NVarChar (20) | | <PB_MODEL> | N |
| PW_MAKE | Purse winch make | NVarChar (20) | | <PW_MAKE> | N |
| PW_MODEL | Purse winch model | NVarChar (20) | | <PW_MODEL> | N |
| NET_DEPTH | Max depth of the net | SmallInt | | <NET_DEPTH> | Y |
| NET_DEPTH_UNIT_ID | Net Depth unit of measurement M - metres; Y- Yards; F-Fathoms | Int | Must be M, Y, F or blank | <NET_DEPTH_UNIT_ID> | Y |
| NET_LENGTH | Max length of the net | SmallInt | | <NET_LENGTH> | Y |
| NET_LENGTH_UNIT_ID | Net Length unit of measurement M - metres; Y- Yards; F-Fathoms | Int | Must be M, Y, F or blank | <NET_LENGTH_UNIT_ID> | Y |
| NET_STRIPS | Number of net strips | SmallInt | | <NET_STRIPS> | N |
| NET_HANG_RATIO | Max net hang ratio | SmallInt | | <NET_HANG_RATIO> | N |
| MESH_MAIN | Main Mesh size | SmallInt | | <MESH_MAIN> | Y |
| MESH_MAIN_UNIT_ID | Main mesh size unit of measurement C - centimetres; I - Inches | Int | Must be C, I or blank | <MESH_MAIN_UNIT_ID> | Y |
| BRAIL_SIZE1 | Brail #1 Capacity | Decimal (5,1) | | <BRAIL_SIZE1> | Y |
| BRAIL_SIZE2 | Brail #2 Capacity | Decimal (5,1) | | <BRAIL_SIZE2> | Y |
| BRAIL_TYPE | Brailing Type Description | NText | | <BRAIL_TYPE> | Y |

1.18 FAD MATERIAL DATA

| PS FAD MATERIAL | | | | | |
|-------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|----------------------------------------------------|-------------------|-------------|
| PROVIDE information on the FAD MATERIAL observed during the trip. | | | | | |
| FIELD | Data Collection Instructions | Field format notes | Validation rules | XML TAG | WCPFC FIELD |
| TRIP IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE | | | <OBSTRIP_ID> | Y |
| FAD EVENT IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE + FAD EVENT DATE/TIME | | | <FAD_ID> | Y |
| FAD_EVENT_DATE | DATE/TIME of the FAD observation event | REFER TO APPENDIX A1 | | <FAD_EVENT_DATE> | Y |
| OBJECT_NUMBER | Number allocated for the object | SmallInt | | <OBJECT_NUMBER> | Y |
| ORIGIN_CODE | Original CODE of the FAD | REFER TO APPENDIX A24 | Code 5 or 6 used for FADs with radio buoy attached | <ORIGIN_CODE> | Y |
| DEPLOYMENT_DATE | Date of FAD deployment | REFER TO APPENDIX A1 | | <DEPLOYMENT_DATE> | Y |
| LAT | LAT postion of deployment | REFER TO APPENDIX A2 | | <LAT> | Y |
| LON | LON postion of deployment | REFER TO APPENDIX A2 | | <LON> | Y |
| SSI_TRAPPED | FLAG to indicate whether any SSI are trapped on the FAD | Char (1) | | <SSI_TRAPPED> | Y |
| AS_FOUND_CODE | CODE to indicate whether the FAD "as Found" | Int | | <AS_FOUND_CODE> | Y |
| AS_LEFT_CODE | CODE to indicate whether the FAD "as Left" | Int | | <AS_LEFT_CODE> | Y |
| MAX_DEPTH_M | Max DEPTH of the FAD in metres | Decimal (5,1) | | <MAX_DEPTH_M> | Y |
| LENGTH_M | Max LENGTH of the FAD in metres | Decimal (5,1) | | <LENGTH_M> | Y |
| WIDTH_M | Max WIDTH of the FAD in metres | Decimal (5,1) | | <WIDTH_M> | Y |
| BUOY_NUMBER | Buoy number stated on the FAD | NVarChar (20) | | <BUOY_NUMBER> | Y |
| MARKINGS | Markings on the FAD | NVarChar (50) | | <MARKINGS> | Y |
| COMMENTS | Comments made by the observer about the FAD | NText | | <COMMENTS> | Y |

1.19 FAD MATERIAL DETAIL

| PS FAD MATERIAL DETAIL | | | | | |
|--------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------------------|-----------------|-------------|
| PROVIDE information on the FAD MATERIAL DETAIL observed during the trip. | | | | | |
| FIELD | Data Collection Instructions | Field format notes | Validation rules | XML TAG | WCPFC FIELD |
| TRIP IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE | | | <OBSTRIP_ID> | Y |
| FAD EVENT IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE + FAD EVENT DATE/TIME | | | <FAD_ID> | Y |
| MATERIAL_CODE | FAD Material CODE | REFER TO APPENDIX A26 | Material Code must exist in the ref_ids table | <MATERIAL_CODE> | Y |
| IS_ATTACHMENT | FLAG to indicate if there is an attachment to the FAD | Char (1) | 'Y' or 'N' | <IS_ATTACHMENT> | Y |

1.20 OBSERVER POLLUTION REPORT

| OBS_POLLUTION | | | | | |
|-------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|--------------------------------------|-----------------|-------------|
| PROVIDE information any Pollution observed during the trip. | | | | | |
| FIELD | Data Collection Instructions | Field format notes | Validation rules | XML TAG | WCPFC FIELD |
| TRIP IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE | | | <OBSTRIP_ID> | Y |
| POLLUTION EVENT IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE + INCIDENT DATE/TIME | | | <POLL_ID> | Y |
| INC DATE | DATE & TIME of the incident | REFER TO APPENDIX A1 | | <INC_DTIME> | Y |
| LAT | Latitude where incident occurred | REFER TO APPENDIX A2 | | <LAT> | Y |
| LON | Longitude where incident occurred | REFER TO APPENDIX A2 | | <LON> | Y |
| PORT ID | PORT where incident occurred | REFER TO APPENDIX A3 | | <PORT_ID> | N |
| ACTIV ID | Activity when event occurred | REFER TO APPENDIX A5 | | <ACTIV_ID> | N |
| VESSEL IDENTIFIER | | | REFER TO APPENDIX A4 | | |
| VATYP ID | Vessel / Aircraft type | Int | REFER TO APPENDIX 17 | <VATYP_ID> | N |
| BEARING_DIR | Compass Bearing to offending vessel | SmallInt | | <BEARING_DIR> | N |
| DISTANCE | Distance to offending vessel | Decimal (7,3) | | <DISTANCE> | N |
| COMMENTS | Additional comments | NText | | <COMMENTS> | N |
| STICKERS_ANS | Response to "Stickers" question | Char (1) | 'Y' or 'N' | <STICKERS_ANS> | N |
| AWARE_ANS | Response to "MARPOL" question | Char (1) | 'Y' or 'N' | <AWARE_ANS> | N |
| ADVISED_ANS | Response to "INFRINGEMENTS" question | Char (1) | 'Y' or 'N' | <ADVISED_ANS> | N |
| PHOTOS_ANS | Response to "PHOTOS" question | Char (1) | 'Y' or 'N' | <PHOTOS_ANS> | N |
| PHOTO_NUMBERS | Number of photos taken on the incident | NVarChar (50) | | <PHOTO_NUMBERS> | N |

1.21 OBSERVER POLLUTION DETAILS

| OBS_POLLUTION_DETAILS | | | | | |
|---------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|----------------------------------------------------------------------|--------------------|-------------|
| PROVIDE information any Pollution details observed during the trip. | | | | | |
| FIELD | Data Collection Instructions | Field format notes | Validation rules | XML TAG | WCFPC FIELD |
| TRIP IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE | | | <OBSTRIP_ID> | Y |
| POLLUTION EVENT IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE + INCIDENT DATE/TIME | | | <POLL_ID> | Y |
| POLLUTIONTYPE_ID | Pollution type code | REFER TO APPENDIX A31 | For example, Disposal of OFFAL MANAGEMENT is a WCFPC required field. | <POLLUTIONTYPE_ID> | Y |
| MATERIAL_ID | Pollution Materials code | REFER TO APPENDIX A29 | | <MATERIAL_ID> | |
| POLL_GEAR_ID | Pollution Gear code | REFER TO APPENDIX A28 | | <POLL_GEAR_ID> | |
| POLL_SRC_ID | Pollution Source code | REFER TO APPENDIX A30 | For example, Disposal of OFFAL MANAGEMENT is a WCFPC required field. | <POLL_SRC_ID> | Y |
| POLL_DESC | Description of pollution type | NText | For example, Disposal of OFFAL MANAGEMENT is a WCFPC required field. | <POLL_DESC> | Y |
| POLL_QTY | Description of pollution quantity | NText | For example, Disposal of OFFAL MANAGEMENT is a WCFPC required field. | <POLL_QTY> | Y |

1.22 OBSERVER JOURNAL

| OBS_JOURNAL | | | | | |
|---------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|--------------------------------------|------------------|---------------|-------------|
| PROVIDE a description of the day's activities in a daily journal record for the trip. | | | | | |
| FIELD | Data Collection Instructions | Field format notes | Validation rules | XML TAG | WCFPC FIELD |
| TRIP IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE | | | <OBSTRIP_ID> | N |
| DAILY JOURNAL IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE | | | <OBS_JRNL_ID> | N |
| JRNL_DATE | DATE of Journal entry | REFER TO APPENDIX A1 | | <JRNL_DATE> | N |
| JRNL_TEXT | Daily journal entry | NText | | <JRNL_TEXT> | N |

1.23 PURSE SEINE TRIP REPORT

| PS_TRIP_REPORT | | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|--------------------|------------------|-------------------------|-------------|
| PROVIDE descriptive information on the trip. | | | | | |
| Refer to the relevant sections in http://www.spc.int/OceanFish/en/publications/doc_download/1334-2014-ps-trip-report- | | | | | |
| FIELD | Data Collection Instructions | Field format notes | Validation rules | XML TAG | WCPFC FIELD |
| TRIP IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE | | | <OBSTRIP_ID> | N |
| 1_BACKGROUND | (Refer to relevant section in link above) | NText | | <1_BACKGROUND> | N |
| 2_0_CRUISE_SUMMARY | (Refer to relevant section in link above) | NText | | <2_0_CRUISE_SUMMARY> | N |
| 2_1_AREA_FISHED | (Refer to relevant section in link above) | NText | | <2_1_AREA_FISHED> | N |
| 2_2_END_OF_TRIP | (Refer to relevant section in link above) | NText | | <2_2_END_OF_TRIP> | N |
| 3_0_DATA_COLLECTED | (Refer to relevant section in link above) | NText | | <3_0_DATA_COLLECTED> | N |
| 4_0_VESSEL_CREW | (Refer to relevant section in link above) | NText | | <4_0_VESSEL_CREW> | N |
| 4_1_VESS_INFO | (Refer to relevant section in link above) | NText | | <4_1_VESS_INFO> | N |
| 4_2_CREW_NATION | (Refer to relevant section in link above) | NText | | <4_2_CREW_NATION> | N |
| 4_2_1_PIC | (Refer to relevant section in link above) | NText | | <4_2_1_PIC> | N |
| 4_3_FISHING_GEAR | (Refer to relevant section in link above) | NText | | <4_3_FISHING_GEAR> | N |
| 4_3_1_BRAIL | (Refer to relevant section in link above) | NText | | <4_3_1_BRAIL> | N |
| 4_3_2_NET | (Refer to relevant section in link above) | NText | | <4_3_2_NET> | N |
| 4_4_ELEC | (Refer to relevant section in link above) | NText | | <4_4_ELEC> | N |
| 4_5_SAFETY_EQ | (Refer to relevant section in link above) | NText | | <4_5_SAFETY_EQ> | N |
| 4_6_OTHER_GEAR | (Refer to relevant section in link above) | NText | | <4_6_OTHER_GEAR> | N |
| 5_0_FISH_STRATEGY | (Refer to relevant section in link above) | NText | | <5_0_FISH_STRATEGY> | N |
| 5_1_FLOAT_SCHS | (Refer to relevant section in link above) | NText | | <5_1_FLOAT_SCHS> | N |
| 5_2_FREE_SCHS | (Refer to relevant section in link above) | NText | | <5_2_FREE_SCHS> | N |
| 5_3_SET_TECH | (Refer to relevant section in link above) | NText | | <5_3_SET_TECH> | N |
| 5_4_VESS_ADV | (Refer to relevant section in link above) | NText | | <5_4_VESS_ADV> | N |
| 5_5_HELICOPTER | (Refer to relevant section in link above) | NText | | <5_5_HELICOPTER> | N |
| 5_6_FISH_SUCC | (Refer to relevant section in link above) | NText | | <5_6_FISH_SUCC> | N |
| 5_7_FISH_INFO | (Refer to relevant section in link above) | NText | | <5_7_FISH_INFO> | N |
| 6_0_COC | (Refer to relevant section in link above) | NText | | <6_0_COC> | N |
| 7_0_ENVIRON | (Refer to relevant section in link above) | NText | | <7_0_ENVIRON> | N |
| 8_1_TARGET_RET | (Refer to relevant section in link above) | NText | | <8_1_TARGET_RET> | N |
| 8_2_TARGET_DISC | (Refer to relevant section in link above) | NText | | <8_2_TARGET_DISC> | N |
| 8_3_TARGET_LOG | (Refer to relevant section in link above) | NText | | <8_3_TARGET_LOG> | N |
| 8_4_BYCATCH | (Refer to relevant section in link above) | NText | | <8_4_BYCATCH> | N |
| 8_4_1_BYC_LOG_COMP | (Refer to relevant section in link above) | NText | | <8_4_1_BYC_LOG_COMP> | N |
| 8_4_2_BILL | (Refer to relevant section in link above) | NText | | <8_4_2_BILL> | N |
| 8_4_3_SHARKS_RAYS | (Refer to relevant section in link above) | NText | | <8_4_3_SHARKS_RAYS> | N |
| 8_4_4_OTHER_BY-CATCH | (Refer to relevant section in link above) | NText | | <8_4_4_OTHER_BY-CATCH> | N |
| 8_4_5_UNSPEC_SP_CODES | (Refer to relevant section in link above) | NText | | <8_4_5_UNSPEC_SP_CODES> | N |
| 8_4_6_SSI_LAND | (Refer to relevant section in link above) | NText | | <8_4_6_SSI_LAND> | N |
| 8_4_7_SSI_INTERACT | (Refer to relevant section in link above) | NText | | <8_4_7_SSI_INTERACT> | N |
| 8_4_8_SSI_SIGHT | (Refer to relevant section in link above) | NText | | <8_4_8_SSI_SIGHT> | N |
| 9_0_SAMPLING | (Refer to relevant section in link above) | NText | | <9_0_SAMPLING> | N |
| 9_1_GRAB | (Refer to relevant section in link above) | NText | | <9_1_GRAB> | N |

PS_TRIP_REPORT

PROVIDE descriptive information on the trip.

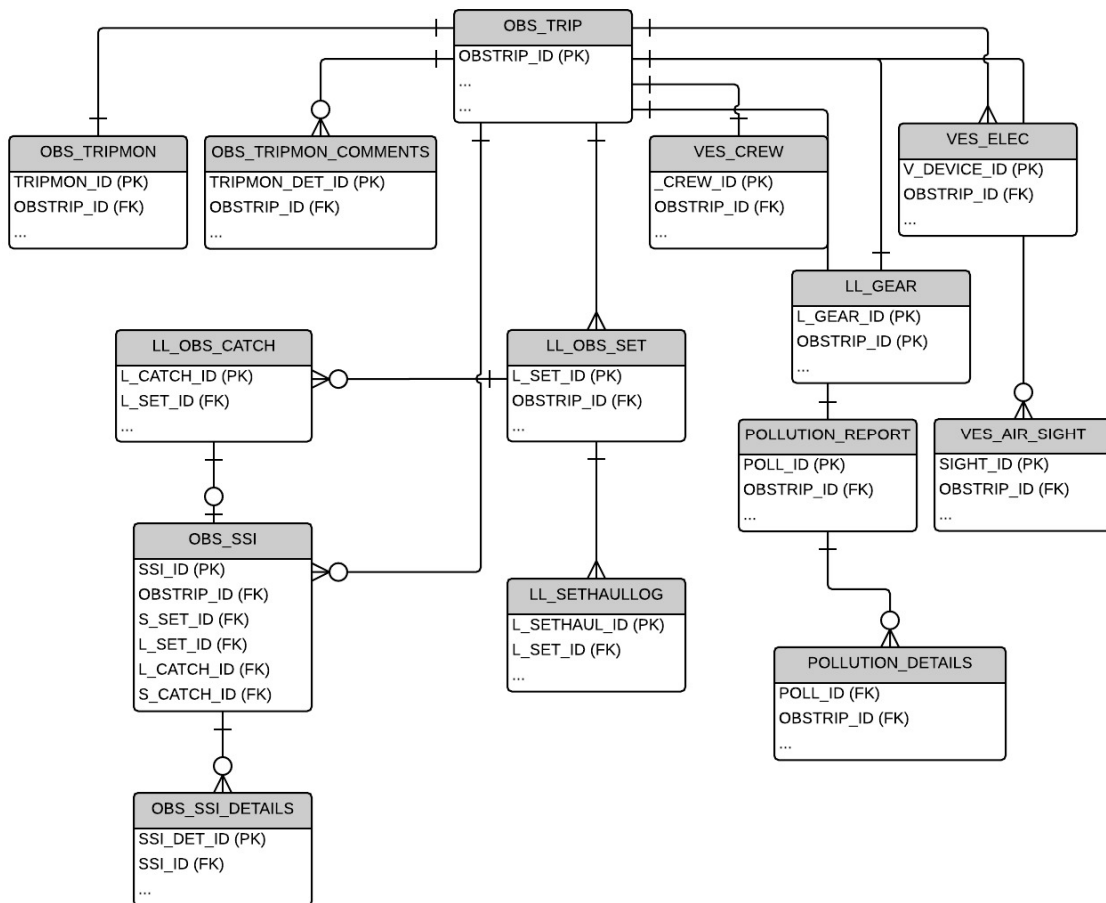
Refer to the relevant sections in http://www.spc.int/OceanFish/en/publications/doc_download/1334-2014-ps-trip-report-

| FIELD | Data Collection Instructions | Field format notes | Validation rules | XML TAG | WCPFC FIELD |
|-------------------|------------------------------------------|--------------------|------------------|---------------------|-------------|
| 9 2 SPILL | Refer to relevant section in link above) | NText | | <9 2 SPILL> | N |
| 9 3 OTHER | Refer to relevant section in link above) | NText | | <9 3 OTHER> | N |
| 10 0 OTHER PROJ | Refer to relevant section in link above) | NText | | <10 0 OTHER PROJ> | N |
| 11 0 WELL LOAD | Refer to relevant section in link above) | NText | | <11 0 WELL LOAD> | N |
| 12 0 VESS DATA | Refer to relevant section in link above) | NText | | <12 0 VESS DATA> | N |
| 13 0 GENERAL | Refer to relevant section in link above) | NText | | <13 0 GENERAL> | N |
| 14 0 TRIP MON | Refer to relevant section in link above) | NText | | <14 0 TRIP MON> | N |
| 14 1 CLARIFY | Refer to relevant section in link above) | NText | | <14 1 CLARIFY> | N |
| 14 2 RECOMMEND | Refer to relevant section in link above) | NText | | <14 2 RECOMMEND> | N |
| 14 3 CREW INFO | Refer to relevant section in link above) | NText | | <14 3 CREW INFO> | N |
| 14 4 MEDICAL | Refer to relevant section in link above) | NText | | <14 4 MEDICAL> | N |
| 14 5 PHOTOS | Refer to relevant section in link above) | NText | | <14 5 PHOTOS> | N |
| 14 6 OTHER INFO | Refer to relevant section in link above) | NText | | <14 6 OTHER INFO> | N |
| 15 0 PROBS | Refer to relevant section in link above) | NText | | <15 0 PROBS> | N |
| 15 1 FORM CH RECS | Refer to relevant section in link above) | NText | | <15 1 FORM CH RECS> | N |
| 16 0 CONCL | Refer to relevant section in link above) | NText | | <16 0 CONCL> | N |
| 17 0 ACKS | Refer to relevant section in link above) | NText | | <17 0 ACKS> | N |

2. LONGLINE OBSERVER E-REPORTING STANDARDS

2.1 DATA MODEL DIAGRAM

The following basic data model diagram outlines the structure of the entities and their relationships for purse seine operational OBSERVER data collected by E-Reporting systems and submitted to national and regional fisheries authorities. The tables that follow provide more information on the mechanisms of the links (relationships) between the entities.



2.2 TRIP-LEVEL DATA

(see the common OBS_TRIP table under [1.2 TRIP-LEVEL DATA](#))

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2.3 SET-LEVEL DATA

| LL_OBS_SET | | | | | |
|------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|------------------------------------------------|--------------------|-------------|
| The observer must PROVIDE the following information for EACH FISHING SET/HAUL during the trip. | | | | | |
| FIELD | Data Collection Instructions | Field format notes | Validation rules | XML TAG | WCPFC FIELD |
| TRIP IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE | | | <OBSTRIP_ID> | Y |
| SET IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE + SET START DATE + SET START TIME | | | <L_SET_ID> | Y |
| SET_NUMBER | Unique # for the SET in this trip | Int | | <SET_NUMBER> | N |
| OBSERVED_YN | Flag to indicate whether set was observed or not. | Bit | | <OBSERVED_YN> | N |
| SET_DATE | Start Date/time for set. | REFER TO APPENDIX A1 | | <SET_DATE> | Y |
| HK_BT_FLT | Number of hooks between floats | SmallInt | Must be 1-60, or -1 for no information. | <HK_BT_FLT> | Y |
| BASK_SET | Number of baskets set. | SmallInt | | <BASK_SET> | Y |
| BASK_OBSERVED | Number of basket observed (bottom of form, Nov 07 version) | SmallInt | | <BASK_OBSERVED> | Y |
| HOOK_SET | Total number of hooks set. | SmallInt | | <HOOK_SET> | Y |
| HOOK_OBSERVED | Number of hooks observed and data recorded. | SmallInt | | <HOOK_OBSERVED> | Y |
| FLOAT_LENGTH | Length of floatline (m) | SmallInt | | <FLOAT_LENGTH> | Y |
| LSPEED | Line setting speed. | Decimal (5,1) | | <LSPEED> | Y |
| LSPEED_UNIT_ID | Link to ref ids table | CHAR(1) | Must be 'M' for metres/second or 'K' for knots | <LSPEED_UNIT_ID> | Y |
| BRANCH_INTVL | Time interval (secs.) between branchline sets. | SmallInt | | <BRANCH_INTVL> | Y |
| BRANCH_DIST | Mainline distance between branchlines (m). | Decimal (4,1) | | <BRANCH_DIST> | Y |
| VESSEL_SET_SPEED | Vessel setting Speed (Knots). | Decimal (5,1) | | <VESSEL_SET_SPEED> | N |
| LIGHTSTICKS | Number of lightsticks used | SmallInt | | <LIGHTSTICKS> | Y |
| TDRS | Number of Time Depth recorders used | SmallInt | | <TDRS> | Y |
| BRANCH_LENGTH | Length of branchline (m) (If all are of a consistent length, otherwise use next set of fields). | Decimal (4,1) | | <BRANCH_LENGTH> | Y |
| BRANCH_0_20 | Number of branchlines between successive floats that are < 20 m. | SmallInt | | <BRANCH_0_20> | Y |
| BRANCH_20_34 | Number of branchlines between successive floats that are 20-35 m. | SmallInt | | <BRANCH_20_34> | Y |
| BRANCH_35_50 | Number of branchlines between successive floats that are 35-50 m. | SmallInt | | <BRANCH_35_50> | Y |
| BRANCH_50_99 | Number of branchlines between successive floats that are > 50 m. | SmallInt | | <BRANCH_50_99> | Y |
| FLOAT_HOOK_N | The total number of hooks that have been hung directly from the floatline for this set. | SmallInt | | <FLOAT_HOOK_N> | Y |
| TAR_SP_CODE | Target Species id recorded on the form | Char (3) | REFER TO APPENDIX 8. | <TAR_SP_CODE> | Y |

LL_OBS_SET

The observer must PROVIDE the following information for EACH FISHING SET/HAUL during the trip.

| FIELD | Data Collection Instructions | Field format notes | Validation rules | XML TAG | WCPFC FIELD |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------------------------|-------------------|-------------|
| | for this set (refer to the SPECIES table) | | | | |
| TARGET_TUN_YN | ADDITIONAL FLAG indication for MULTIPLE targeting | Bit | | <TARGET_TUN_YN> | Y |
| TARGET_SWO_YN | ADDITIONAL FLAG indication for MULTIPLE targeting | Bit | | <TARGET_SWO_YN> | Y |
| TARGET_SKH_YN | ADDITIONAL FLAG indication for MULTIPLE targeting | Bit | | <TARGET_SKH_YN> | Y |
| SETDETAILS | General notes on the setting procedures. Any comments relating to the setting strategy. For example has there been any specific targetting of shark in this set. | NText | | <SETDETAILS> | N |
| BAIT1_SP_CODE | Bait species id. # 1 | Char (3) | REFER TO APPENDIX 8. | <BAIT1_SP_CODE> | Y |
| BAIT2_SP_CODE | Bait species id. # 2 | Char (3) | REFER TO APPENDIX 8. | <BAIT2_SP_CODE> | Y |
| BAIT3_SP_CODE | Bait species id. # 3 | Char (3) | REFER TO APPENDIX 8. | <BAIT3_SP_CODE> | Y |
| BAIT4_SP_CODE | Bait species id. # 4 | Char (3) | REFER TO APPENDIX 8. | <BAIT4_SP_CODE> | Y |
| BAIT5_SP_CODE | Bait species id. # 5 | Char (3) | REFER TO APPENDIX 8. | <BAIT5_SP_CODE> | Y |
| BAIT1_W | Weight of bait species #1 used, (kg) | SmallInt | | <BAIT1_W> | N |
| BAIT2_W | Weight of bait species #2 used, (kg) | SmallInt | | <BAIT2_W> | N |
| BAIT3_W | Weight of bait species #3 used, (kg) | SmallInt | | <BAIT3_W> | N |
| BAIT4_W | Weight of bait species #4 used, (kg) | SmallInt | | <BAIT4_W> | N |
| BAIT5_W | Weight of bait species #5 used, (kg) | SmallInt | | <BAIT5_W> | N |
| BAIT1_H | Hook number(s) in basket that Bait 1 was placed | NVarChar (25) | (Hook numbers separated by commas) | <BAIT1_H> | N |
| BAIT2_H | Hook number(s) in basket that Bait 2 was placed | NVarChar (25) | (Hook numbers separated by commas) | <BAIT2_H> | N |
| BAIT3_H | Hook number(s) in basket that Bait 3 was placed | NVarChar (25) | (Hook numbers separated by commas) | <BAIT3_H> | N |
| BAIT4_H | Hook number(s) in basket that Bait 4 was placed | NVarChar (25) | (Hook numbers separated by commas) | <BAIT4_H> | N |
| BAIT5_H | Hook number(s) in basket that Bait 5 was placed | NVarChar (25) | (Hook numbers separated by commas) | <BAIT5_H> | N |
| BAIT1_DYED_YN | FLAG indication on dyed on bait #1 | SmallInt | | <BAIT1_DYED_YN> | Y |
| BAIT2_DYED_YN | FLAG indication on dyed on bait #2 | SmallInt | | <BAIT2_DYED_YN> | Y |
| BAIT3_DYED_YN | FLAG indication on dyed on bait #3 | SmallInt | | <BAIT3_DYED_YN> | Y |
| BAIT4_DYED_YN | FLAG indication on dyed on bait #4 | SmallInt | | <BAIT4_DYED_YN> | Y |
| BAIT5_DYED_YN | FLAG indication on dyed on bait #5 | SmallInt | | <BAIT5_DYED_YN> | Y |
| TORI_POLES_YN | FLAG indication on tori poles used | SmallInt | | <TORI_POLES_YN> | Y |
| BIRD_CURTAIN_YN | FLAG indication on bird curtain used | SmallInt | | <BIRD_CURTAIN_YN> | Y |
| WT_LINES_YN | FLAG indication on weighted lines used | SmallInt | | <WT_LINES_YN> | Y |
| UW_CHUTE_YN | FLAG indication on underwater chute used | SmallInt | | <UW_CHUTE_YN> | Y |

2.4 SET-HAUL LOG DATA

LL_SETHAULLOG

The E-Reporting system must PROVIDE the following log information for EACH SET/HAUL during the period of the trip, typically on a 30-minute basis.

| FIELD | Data Collection Instructions | Field format notes | Validation rules | XML TAG | WCPFC FIELD |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|--------------------------------|------------------|-------------|
| TRIP IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE | | | <OBSTRIP_ID> | Y |
| SET IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE + SET START DATE + SET START TIME | | | <L_SET_ID> | Y |
| SETHAUL LOG IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE + SET START DATE + SET START TIME + LOG DATE + LOG TIME | | | <L_SETHAULOG_ID> | Y |
| LOG_DATE | Date/TIME of log reading | REFER TO APPENDIX A1 | | <LOG_DATE> | Y |
| SETHAUL | Status of gear at this logged date/time : Set (S) Haul (H) or Soak (K) | Char (4) | Must be either 'S', 'H', 'K' | <SETHAUL> | Y |
| STEND_ID | Indicator for status of the SET-HAUL 83 - First log record for the SET (start of SET information) 84 - Last log record for the SET (end of SET information) 85 - First log record for the HAUL (start of HAUL information) 86 - Last log record for the HAUL (end of HAUL information) | Int | Must be 83, 84, 85, 86 or NULL | <STEND_ID> | Y |
| LAT | Latitude (long format) | REFER TO APPENDIX A2 | | <LAT> | Y |
| LON | Longitude (long format) | REFER TO APPENDIX A2 | | <LON> | Y |
| COMMENTS | Comments | NText | | <COMMENTS> | N |

2.5 SET CATCH DATA

| LL_OBS_CATCH | | | | | |
|----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|----------------------------------------------------------------------------------------------------|---------------|-------------|
| The observer must PROVIDE the following CATCH DETAILS for EACH FISHING HAUL for the period of the trip. | | | | | |
| FIELD | Data Collection Instructions | Field format notes | Validation rules | XML TAG | WCPFC FIELD |
| TRIP IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE | | | <OBSTRIP_ID> | Y |
| SET IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE + SET START DATE + SET START TIME | | | <L_SET_ID> | Y |
| CATCH IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE + SET START DATE + SET START TIME + CATCH EVENT DATE + CATCH EVENT TIME | | | <L_CATCH_ID> | Y |
| CATCH_DATE | Date/TIME of individual catch event | REFER TO APPENDIX A1 | | <CATCH_DATE> | Y |
| HOOK_NO | Hook number (since the last float). Hook number=99 represents catch on a hook hanging directly from the floatline. | SmallInt | | <HOOK_NO> | Y |
| SP_CODE | Species code. | Char (3) | REFER TO APPENDIX 8. Only shark species can have a FATE as 'RFR' and 'DFR'. | <SP_CODE> | Y |
| FATE_CODE | FATE of this catch. This indicates whether it was RETAINED, DISCARDED or ESCAPED, and any specific processing. | Char (3) | REFER TO APPENDIX 9 Only shark species can have a FATE as 'RFR' and 'DFR'. | <FATE_CODE> | Y |
| COND_CODE | CONDITION of this catch on LANDING. Relevant for the Species of Special Interest. | Char (2) | REFER TO APPENDIX 10 | <COND_CODE> | Y |
| COND_REL_CODE | CONDITION of this catch on RELEASE/DISCARD. Relevant for the Species of Special Interest. | Char (2) | REFER TO APPENDIX 10 | | Y |
| LEN | Length (cm). | SmallInt | Refer to SPECIES RANGE table for these species | <LEN> | Y |
| LEN_CODE | Length measurement code | Char (2) | REFER TO APPENDIX 11 | <LEN_CODE> | Y |
| WT | Weight (kgs) - must be measured weight and not a visual estimate | Decimal (5,1) | | <WT> | N |
| WT_CODE | Weight code. | Char (2) | REFER TO APPENDIX 22 | <WT_CODE> | N |
| SEX_CODE | SEX of fish | Char (1) | REFER TO APPENDEX 12 | <SEX_CODE> | Y |
| GSTAGE_CODE | GONAD STAGE CODE | Char (1) | REFER TO APPENDIX 23 | <GSTAGE_CODE> | N |
| COMMENTS | Comments | NVarChar (40) | | <COMMENTS> | N |

2.6 SPECIES OF SPECIAL INTEREST DATA

(see [1.7 SPECIES OF SPECIAL INTEREST DATA](#))

2.7 SPECIES OF SPECIAL INTEREST DETAILS DATA

(see [1.8 SPECIES OF SPECIAL INTEREST DETAIL DATA](#))

2.8 TRIP MONITORING QUESTIONS

(see [1.11 TRIP MONITORING DATA](#))

2.9 TRIP MONITORING COMMENTS

(see [1.12 TRIP MONITORING COMMENTS](#))

2.10 VESSEL/AIRCRAFT SIGHTINGS DATA

(see [1.13 VESSEL/AIRCRAFT SIGHTINGS](#))

2.11 MARINE DEVICES DATA

(see [1.15 MARINE DEVICES DATA](#))

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2.12 CREW DATA

| VES_CREW | | | | | |
|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------|
| PROVIDE the summary details of VESSEL CREW by NATIONALITY on this TRIP. | | | | | |
| FIELD | Data Collection Instructions | Field format notes | Validation rules | XML TAG | WCPFC FIELD |
| TRIP IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE | | | <OBSTRIP_ID> | Y |
| CREW IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE + COUNTRY_CODE | | | <V_CREW_ID> | Y |
| COUNTRY_CODE | Nationality of the CREW | Char (2) | Refer to valid ISO two-letter Country Codes - ISO 3166 For example, refer to http://en.wikipedia.org/wiki/ISO 3166-1 | <COUNTRY_CODE> | Y |
| CREWCOUNT | Total number of crew on board during the trip for this COUNTRY OF NATIONALITY | SmallInt | | <CREWCOUNT> | Y |

2.13 LONGLINE GEAR DATA

| LL GEAR | | | | | |
|----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------|------------------------|--------------------|
| PROVIDE information on the LONGLINE GEAR on the vessel. | | | | | |
| FIELD | Data Collection Instructions | Field format notes | Validation rules | XML TAG | WCPFC FIELD |
| TRIP IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE | | | <OBSTRIP_ID> | Y |
| LL GEAR IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE | | | <L_GEAR_ID> | Y |
| MLINEHAUL_ANS | Mainline hauler (Y/N) | Char (1) | Must be 'Y', 'N' or 'X' (observer did not respond to this question) | <MLINEHAUL_ANS> | Y |
| MLINEHAUL_USAGE_CODE | Link to ref usage table | Char (3) | REFER TO APPENDIX 21 | <MLINEHAUL_USAGE_CODE> | Y |
| MLINEHAUL_COMMENTS | Comments on Mainline Hauler | NVarChar (50) | | <MLINEHAUL_COMMENTS> | N |
| BLINEHAUL_ANS | Branchline hauler (Y/N) | Char (1) | Must be 'Y', 'N' or 'X' (observer did not respond to this question) | <BLINEHAUL_ANS> | Y |
| BLINEHAUL_USAGE_CODE | Link to ref usage table | Char (3) | REFER TO APPENDIX 21 | <BLINEHAUL_USAGE_CODE> | Y |
| BLINEHAUL_COMMENTS | Comments on Branchline Hauler | NVarChar (50) | | <BLINEHAUL_COMMENTS> | N |
| LSHOOT_ANS | Line shooter (Y/N) | Char (1) | Must be 'Y', 'N' or 'X' (observer did not respond to this question) | <LSHOOT_ANS> | Y |
| LSHOOT_USAGE_CODE | Link to ref usage table | Char (3) | REFER TO APPENDIX 21 | <LSHOOT_USAGE_CODE> | Y |
| LSHOOT_COMMENTS | Comments on Line shooter | NVarChar (50) | | <LSHOOT_COMMENTS> | N |
| BAITTHR_ANS | Automatic bait thrower (Y/N) | Char (1) | Must be 'Y', 'N' or 'X' (observer did not respond to this question) | <BAITTHR_ANS> | Y |
| BAITTHR_USAGE_CODE | Link to ref usage table | Char (3) | REFER TO APPENDIX 21 | <BAITTHR_USAGE_CODE> | Y |
| BAITTHR_COMMENTS | Comments on Automatic Bait thrower | NVarChar (50) | | <BAITTHR_COMMENTS> | N |
| BRANCHATT_ANS | Automatic branchline attacher (Y/N) | Char (1) | Must be 'Y', 'N' or 'X' (observer did not respond to this question) | <BRANCHATT_ANS> | Y |
| BRANCHATT_USAGE_CODE | Link to ref usage table | Char (3) | REFER TO APPENDIX 21 | <BRANCHATT_USAGE_CODE> | Y |
| BRANCHATT_COMMENTS | Comments on Automatic Branchline attacher | NVarChar (50) | | <BRANCHATT_COMMENTS> | N |
| WT_SCA_ANS | Weighing scales (Y/N) | Char (1) | Must be 'Y', 'N' or 'X' (observer did not respond to this question) | <WT_SCA_ANS> | N |
| WT_SCA_USAGE_CODE | Weighing scales USAGE | Char (3) | REFER TO APPENDIX 21 | <WT_SCA_USAGE_CODE> | N |
| WT_SCA_COMMENTS | Comments on Automatic B Weighing scales | NVarChar (50) | | <WT_SCA_COMMENTS> | N |
| MLINE_COMP | Composition of mainline | NText | | <MLINE_COMP> | Y |
| BLINE_COMP | Composition of branchlines | NText | | <BLINE_COMP> | Y |
| MLINE_MAT | Mainline material | NVarChar (15) | | <MLINE_MAT> | Y |
| MLINE_MAT_DESC | Mainline material description | NVarChar (50) | | <MLINE_MAT_DESC> | Y |
| MLINE_LEN | Mainline length (nm) | Decimal (5,1) | | <MLINE_LEN> | Y |
| MLINE_DIAM | Mainline diameter (mm) | Decimal (4,1) | | <MLINE_DIAM> | Y |
| BLINE_MAT1 | Composition of branchlines (Material #1) | NVarChar (40) | | <BLINE_MAT1> | Y |
| BLINE_MAT1_DESC | Branchlines (Material #1) | NVarChar (50) | | <BLINE_MAT1_DESC> | Y |

LL_GEAR

PROVIDE information on the LONGLINE GEAR on the vessel.

| FIELD | Data Collection Instructions | Field format notes | Validation rules | XML TAG | WCPFC FIELD |
|---------------------|--------------------------------------------|--------------------|---------------------------------------------------------------------|-----------------------|-------------|
| | description | | | | |
| BLINE_MAT2 | Composition of branchlines (Material #2) | NVarChar (40) | | <BLINE_MAT2> | Y |
| BLINE_MAT2_DESC | Branchlines (Material #2) description | NVarChar (50) | | <BLINE_MAT2_DESC> | Y |
| BLINE_MAT3 | Composition of branchlines (Material #3) | NVarChar (40) | | <BLINE_MAT3> | Y |
| BLINE_MAT3_DESC | Branchlines (Material #3) description | NVarChar (50) | | <BLINE_MAT3_DESC> | Y |
| WIRETRACE_ANS | Presence orf wire trace (Y/N) | Char (1) | Must be 'Y', 'N' or 'X' (observer did not respond to this question) | <WIRETRACE_ANS> | Y |
| SEAWATER_ANS | Refrigeration method - Sea water ? | Char (1) | Must be 'Y', 'N' or 'X' (observer did not respond to this question) | <SEAWATER_ANS> | Y |
| BLASTFREEZER_ANS | Refrigeration method - blast freezer ? | Char (1) | Must be 'Y', 'N' or 'X' (observer did not respond to this question) | <BLASTFREEZER_ANS> | Y |
| ICE_ANS | Refrigeration method - Ice ? | Char (1) | Must be 'Y', 'N' or 'X' (observer did not respond to this question) | <ICE_ANS> | Y |
| CHILLEDSEAWATER_ANS | Refrigeration method - Chilled Sea water ? | Char (1) | Must be 'Y', 'N' or 'X' (observer did not respond to this question) | <CHILLEDSEAWATER_ANS> | Y |
| OTHERSTORAGE_ANS | Refrigeration method - other ? | Char (1) | Must be 'Y', 'N' or 'X' (observer did not respond to this question) | <OTHERSTORAGE_ANS> | Y |
| OTHERSTORAGE_DESC | Refrigeration method - other description | NVarChar (50) | | <OTHERSTORAGE_DESC> | Y |
| HKSJAPAN_SIZE | Japanese hook size | NVarChar (50) | | <HKSJAPAN_SIZE> | Y |
| HKSJAPAN_PERC | % of Japanese hook | TinyInt | | <HKSJAPAN_PERC> | N |
| HKSJAPAN_ORIS | Japanese hook original size | NVarChar (5) | | <HKSJAPAN_ORIS> | Y |
| HKSCIRCLE_SIZE | Circle hook size | NVarChar (50) | | <HKSCIRCLE_SIZE> | Y |
| HKSCIRCLE_PERC | % of Circle hook | TinyInt | | <HKSCIRCLE_PERC> | N |
| HKSCIRCLE_ORIS | Circle hook original size | NVarChar (5) | | <HKSCIRCLE_ORIS> | Y |
| HKSJ_SIZE | J hook size | NVarChar (50) | | <HKSJ_SIZE> | Y |
| HKSJ_PERC | % of J hook size | TinyInt | | <HKSJ_PERC> | N |
| HKSJ_ORIS | J hook original size | NVarChar (5) | | <HKSJ_ORIS> | Y |
| HKSOTH_TYPE | Other hook types description | NVarChar (50) | | <HKSOTH_TYPE> | Y |
| HKSOTH_SIZE | Other hook type size | NVarChar (50) | | <HKSOTH_SIZE> | Y |
| HKSOTH_PERC | % of Other hook types | TinyInt | | <HKSOTH_PERC> | N |
| HKSOTH_ORIS | Others types of hook original size | NVarChar (5) | | <HKSOTH_ORIS> | Y |
| BLINE_MAT1_DIAM | Branchlines (Material #1) diameter | Decimal (4,1) | | <BLINE_MAT1_DIAM> | Y |
| BLINE_MAT2_DIAM | Branchlines (Material #2) diameter | Decimal (4,1) | | <BLINE_MAT2_DIAM> | Y |

2.14 POLLUTION REPORT

(see [1.20 POLLUTION REPORT](#) and [1.21 POLLUTION DETAILS](#))

2.15 OBSERVER JOURNAL

(see [1.22 OBSERVER JOURNAL](#))

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2.16 LONGLINE TRIP REPORT

| LL_TRIP_REPORT PROVIDE descriptive information on the trip. Refer to the relevant sections in http://www.spc.int/OceanFish/en/publications/doc_download/1318-2014-11-trip-report | | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|--------------------|------------------|-----------------------|-------------|
| FIELD | Data Collection Instructions | Field format notes | Validation rules | XML TAG | WCPFC FIELD |
| TRIP IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE | | | <OBSTRIP_ID> | N |
| 1_BACKGROUND | (Refer to relevant section in link above) | NText | | <1_BACKGROUND> | N |
| 2_0_CRUISE_SUMMARY | (Refer to relevant section in link above) | NText | | <2_0_CRUISE_SUMMARY> | N |
| 2_1_AREA_FISHED | (Refer to relevant section in link above) | NText | | <2_1_AREA_FISHED> | N |
| 2_2_END_OF_TRIP | (Refer to relevant section in link above) | NText | | <2_2_END_OF_TRIP> | N |
| 3_0_DATA_COLLECTED | (Refer to relevant section in link above) | NText | | <3_0_DATA_COLLECTED> | N |
| 3_1_OTHER_DATA_COLL | (Refer to relevant section in link above) | NText | | <3_1_OTHER_DATA_COLL> | N |
| 4_0_COC | Refer to relevant section in link above) | NText | | <4_0_COC> | N |
| 5_1_VESS_INFO | Refer to relevant section in link above) | NText | | <5_1_VESS_INFO> | N |
| 5_2_CREW_NATION | Refer to relevant section in link above) | NText | | <5_2_CREW_NATION> | N |
| 5_2_1_PIC | Refer to relevant section in link above) | NText | | <5_2_1_PIC> | N |
| 5_3_ELEC | Refer to relevant section in link above) | NText | | <5_3_ELEC> | N |
| 5_3_1_RADIO_BUOYS | Refer to relevant section in link above) | NText | | <5_3_1_RADIO_BUOYS> | N |
| 5_4_FISHING_GEAR | Refer to relevant section in link above) | NText | | <5_4_FISHING_GEAR> | N |
| 5_4_1_MAINLINE | Refer to relevant section in link above) | NText | | <5_4_1_MAINLINE> | N |
| 5_4_2_BRANCHLINES | Refer to relevant section in link above) | NText | | <5_4_2_BRANCHLINES> | N |
| 5_4_3_FLOATLINES | Refer to relevant section in link above) | NText | | <5_4_3_FLOATLINES> | N |
| 5_4_4_BLINE_WTS | Refer to relevant section in link above) | NText | | <5_4_4_BLINE_WTS> | N |
| 5_4_5_FISH_HOOKS | Refer to relevant section in link above) | NText | | <5_4_5_FISH_HOOKS> | N |
| 5_5_SAFETY_EQ | Refer to relevant section in link above) | NText | | <5_5_SAFETY_EQ> | N |
| 5_6_REGRIG | Refer to relevant section in link above) | NText | | <5_6_REGRIG> | N |
| 5_7_OTHER_GEAR | Refer to relevant section in link above) | NText | | <5_7_OTHER_GEAR> | N |
| 6_0_FISH_STRATEGY | Refer to relevant section in link above) | NText | | <6_0_FISH_STRATEGY> | N |
| 6_1_FISHERY_INFO | Refer to relevant section in link above) | NText | | <6_1_FISHERY_INFO> | N |
| 6_2_OCEAN_FEATURES | Refer to relevant section in link above) | NText | | <6_2_OCEAN_FEATURES> | N |
| 6_3_SET_HAUL | Refer to relevant section in link above) | NText | | <6_3_SET_HAUL> | N |
| 6_4_TARGET_DEPTH | Refer to relevant section in link above) | NText | | <6_4_TARGET_DEPTH> | N |
| 6_5_BAITING | Refer to relevant section in link above) | NText | | <6_5_BAITING> | N |
| 6_6_MITIGATION | Refer to relevant section in link above) | NText | | <6_6_MITIGATION> | N |
| 6_6_1_FISH_OFFAL | Refer to relevant section in link above) | NText | | <6_6_1_FISH_OFFAL> | N |
| 6_7_HAUL_PROCESS | Refer to relevant section in link above) | NText | | <6_7_HAUL_PROCESS> | N |
| 6_8_UNUSUAL_SET | Refer to relevant section in link above) | NText | | <6_8_UNUSUAL_SET> | N |
| 6_9_CHANGES_SETS | Refer to relevant section in link above) | NText | | <6_9_CHANGES_SETS> | N |
| 7_1_WEATHER | Refer to relevant section in link above) | NText | | <7_1_WEATHER> | N |
| 7_2_SEA_COND | Refer to relevant section in link above) | NText | | <7_2_SEA_COND> | N |
| 7_3_MOON_PHASE | Refer to relevant section in link above) | NText | | <7_3_MOON_PHASE> | N |
| 8_1_TARGET_CATCH | Refer to relevant section in link above) | NText | | <8_1_TARGET_CATCH> | N |
| 8_1_1_TARGET_PROC | Refer to relevant section in link above) | NText | | <8_1_1_TARGET_PROC> | N |
| 8_1_2_TARGET_DISC | Refer to relevant section in link above) | NText | | <8_1_2_TARGET_DISC> | N |

LL_TRIP_REPORT

PROVIDE descriptive information on the trip.

Refer to the relevant sections in http://www.spc.int/OceanFish/en/publications/doc_download/1318-2014-11-trip-report

| FIELD | Data Collection Instructions | Field format notes | Validation rules | XML TAG | WCPFC FIELD |
|----------------------|------------------------------------------|--------------------|------------------|------------------------|-------------|
| 8 1 3 TARGET DAMAGE | Refer to relevant section in link above) | NText | | <8 1 3 TARGET DAMAGE> | N |
| 8 2 1 OTHER TUN BILL | Refer to relevant section in link above) | NText | | <8 2 1 OTHER TUN BILL> | N |
| 8 2 2 SHARKS RAYS | Refer to relevant section in link above) | NText | | <8 2 2 SHARKS RAYS> | N |
| 8 2 3 OTHER BY-CATCH | Refer to relevant section in link above) | NText | | <8 2 3 OTHER BY-CATCH> | N |
| 8 3 UNSPEC SP CODES | Refer to relevant section in link above) | NText | | <8 3 UNSPEC SP CODES> | N |
| 8 4 1 SSI LAND | Refer to relevant section in link above) | NText | | <8 4 1 SSI LAND> | N |
| 8 4 2 SSI INTERACT | Refer to relevant section in link above) | NText | | <8 4 2 SSI INTERACT> | N |
| 8 4 3 SSI MAM | Refer to relevant section in link above) | NText | | <8 4 3 SSI MAM> | N |
| 8 4 4 SSI SIGHT | Refer to relevant section in link above) | NText | | <8 4 4 SSI SIGHT> | N |
| 9 0 TRANS | Refer to relevant section in link above) | NText | | <9 0 TRANS> | N |
| 10 1 TAGS | Refer to relevant section in link above) | NText | | <10 1 TAGS> | N |
| 10 2 STOMACH | Refer to relevant section in link above) | NText | | <10 2 STOMACH> | N |
| 10 3 OTHER | Refer to relevant section in link above) | NText | | <10 3 OTHER> | N |
| 11 0 TRIP MON | Refer to relevant section in link above) | NText | | <11 0 TRIP MON> | N |
| 11 1 CLARIFY | Refer to relevant section in link above) | NText | | <11 1 CLARIFY> | N |
| 11 2 RECOMMEND | Refer to relevant section in link above) | NText | | <11 2 RECOMMEND> | N |
| 11 3 CREW INFO | Refer to relevant section in link above) | NText | | <11 3 CREW INFO> | N |
| 11 4 MEDICAL | Refer to relevant section in link above) | NText | | <11 4 MEDICAL> | N |
| 11 5 PHOTOS | Refer to relevant section in link above) | NText | | <11 5 PHOTOS> | N |
| 11 6 OTHER INFO | Refer to relevant section in link above) | NText | | <11 6 OTHER INFO> | N |
| 12 0 VESS DATA | Refer to relevant section in link above) | NText | | <12 0 VESS DATA> | N |
| 13 0 GENERAL | Refer to relevant section in link above) | NText | | <13 0 GENERAL> | N |
| 14 0 PROBS | Refer to relevant section in link above) | NText | | <14 0 PROBS> | N |
| 14 1 FORM CH RECS | Refer to relevant section in link above) | NText | | <14 1 FORM CH RECS> | N |
| 15 0 CONCL | Refer to relevant section in link above) | NText | | <15 0 CONCL> | N |
| 16 0 ACKS | Refer to relevant section in link above) | NText | | <16 0 ACKS> | N |

APPENDICES

APPENDIX A1 – DATE/TIME FORMAT

The DATE/TIME formats must adhere to the following standard:
ISO 8601 - Dates and times format – both local and UTC dates

[YYYY]-[MM]-[DD]T[HH]:[MM]Z for fields designated as UTC date/time

[YYYY]-[MM]-[DD]T[HH]:[MM] for fields designated as LOCAL date/time

APPENDIX A2 – POSITION/COORDINATE FORMAT

The Latitude and Longitude coordinates must adhere to the ISO 6709 – Positions
Degrees and minutes to 3 decimal places

LATITUDE +/- DDMM.MMM
LONGITUDE +/- DDDMM.MMM

APPENDIX A3 – PORT LOCATION CODES

The PORT LOCATION Codes must adhere to the UN/LOCODE standard UPPERCASE CHAR(5)
United Nations - Code for Trade and Transport Locations (UN/LOCODE) – see
<http://www.unece.org/cefact/locode/service/location>

APPENDIX A4 – VESSEL IDENTIFICATION

The attributes to be provided for the VESSEL needs to be consistent with several VESSEL registers at the global and regional level. The most important are the proposed IMO/UVI standard vessel identifier (UVI), the WCPFC vessel register and the FFA Vessel register.

| FIELD | Data Collection Instructions | Field format notes | Validation rules | XML TAG | WCPFC FIELD |
|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-------------|
| VESSEL NAME | PROVIDE the VESSEL attributes which should be consistent with the attributes stored in the WCPFC and FFA Regional Vessel Registers | CHAR(30) UPPER CASE | Must be consistent with the WCPFC and FFA Vessel Registers | <VESSELNAME> | Y |
| COUNTRY OF VESSEL REGISTRATION | | CHAR(2) ISO 3166-1 alpha-2 two-letter country code UPPER CASE | ISO 3166-1 alpha-2 two-letter country code Must be consistent with the WCPFC and FFA Vessel Registers Country of registration is distinct from the chartering nation, where relevant | <COUNTRYREG> | Y |
| VESSEL REGISTRATION NUMBER | | CHAR(20) UPPER CASE | Must be consistent with the WCPFC and FFA Vessel Registers | <REGNO> | Y |
| FFA VESSEL REGISTER NUMBER | | INTEGER(5) | Must be consistent with the FFA Vessel Register | <FFAVID> | N |
| WCPFC RFV VID | | INTEGER(10) | Must be consistent with the WCPFC RFV | <WIN> | Y |
| UNIVERSAL VESSEL IDENTIFIER (UVI) | | INTEGER(10) | Must be consistent with the WCPFC and FFA Vessel Registers | <IMO_UVI> | N |
| VESSEL INTERNATIONAL CALLSIGN | | CHAR(10) UPPER CASE | Must be consistent with the WCPFC and FFA Vessel Registers | <IRCS> | Y |

APPENDIX A5 – PURSE SEINE OBSERVER ACTIVITY CODES

| S_ACTIV_ID | Description | FAD reference (to record BEACON field) | FORM Code version (old) |
|------------|--------------------------------------------|-------------------------------------------|----------------------------|
| 1 | Set | YES | 1 |
| 2 | Searching | | 2 |
| 3 | Transit | | 3 |
| 4 | No fishing - Breakdown | | 4 |
| 5 | No fishing - Bad weather | | 5 |
| 6 | In port - please specify | | 6 |
| 7 | Net cleaning set | | 7 |
| 8 | Investigate free school | | 8 |
| 9 | Investigate floating object | YES | 9 |
| 10 | Deploy - raft, FAD or payao | YES | 10D |
| 11 | Retrieve - raft, FAD or payao | YES | 10R |
| 12 | No fishing - Drifting at day's end | | 11 |
| 13 | No fishing - Drifting with floating object | YES | 12 |
| 14 | No fishing - Other reason (specify) | | 13 |
| 15 | Drifting -With fish aggregating lights | YES | 14 |
| 16 | Retrieve radio buoy | YES | 15R |
| 17 | Deploy radio buoy | YES | 15D |
| 18 | Transshipping or bunkering | | 16 |
| 19 | Servicing FAD or floating object | YES | 17 |
| 20 | <i>Helicopter takes off to search</i> | | <i>H1</i> |
| 21 | <i>Helicopter returned from search</i> | | <i>H2</i> |

APPENDIX A6 – PURSE SEINE TUNA SCHOOL ASSOCIATION CODES

| S_ACTIV_ID | Description | SCHOOL TYPE CATEGORY |
|------------|-------------------------------------|----------------------|
| 1 | Unassociated (free school) | UNASSOCIATED |
| 2 | Feeding on Baitfish (free school) | UNASSOCIATED |
| 3 | Drifting log, debris or dead animal | ASSOCIATED |
| 4 | Drifting raft, FAD or payao | ASSOCIATED |
| 5 | Anchored raft, FAD or payao | ASSOCIATED |
| 6 | Live whale | ASSOCIATED |
| 7 | Live whale shark | ASSOCIATED |
| 8 | Other (please specify) | |
| 9 | No tuna associated | |

APPENDIX A7 – PURSE SEINE TUNA SCHOOL DETECTION CODES

| DETON_ID | Description |
|----------|------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Seen from vessel |
| 2 | Seen from helicopter; Use when vessel gets to the school of tuna that helicopter either: 1. reported on; or 2. dropped buoy on. |
| 3 | Marked with beacon |
| 4 | Bird radar |
| 5 | Sonar / depth sounder |
| 6 | Info. from other vessel |
| 7 | Anchored FAD / payao (recorded) |

APPENDIX A8 – SPECIES CODES

Refer to the FAO three-letter species codes:

<http://www.fao.org/fishery/collection/asfis/en>

APPENDIX A9 – OBSERVER FATE CODES

| FATE CODE | DESCRIPTION |
|-----------|----------------------------------------------------|
| DCF | Discarded - Line cut or Other |
| DDL | Discarded - Difficult to land |
| DFR | Discarded - fins removed and trunk discarded |
| DFW | Discarded - Discarded from well |
| DGD | Discarded - Gear damage |
| DNS | Discarded - No space in freezer |
| DOR | Discarded - other reason (specify) |
| DPA | Discarded - Protected species - Alive |
| DPD | Discarded - Protected species - Dead |
| DPQ | Discarded - poor quality |
| DPS | Discarded - protected species (e.g. turtles) |
| DPU | Discarded - Protected Species - Condition unknown |
| DSD | Discarded - Shark damage |
| DSO | Discarded - rejected (struck off before landing) |
| DTS | Discarded - too small |
| DUS | Discarded - Undesirable species |
| DVF | Discarded - Vessel fully loaded |
| DWD | Discarded - Whale damage |
| ESC | Escaped |
| RCC | Retained - Crew Consumption |
| RFL | Retained - Filleted |
| RFR | Retained - fins removed and trunk retained |
| RGG | Retained - gilled and gutted (retained for sale) |
| RGO | Retained - gutted only |
| RGT | Retained - gilled gutted and tailed (for sale) |
| RHG | Retained - headed and gutted (Marlin) |
| RHT | Retained - Headed, gutted and tailed |
| RMD | Retained - fins removed/trunk retained (MANDATORY) |
| ROR | Retained - other reason (specify) |
| RPT | Retained - partial (e.g. fillet, loin) |
| RSD | Retained - Shark damage |
| RTL | Retained - Tailed |
| RWD | Retained - Whale Damage |
| RWG | Retained - Winged |
| RWW | Retained - whole |
| UUU | Unknown - not observed |

APPENDIX A10 – OBSERVER CONDITION CODES

| CONDITION CODE | Description |
|----------------|----------------------------------------|
| A0 | Alive but unable to describe condition |
| A1 | Alive and healthy |
| A2 | Alive, but injured or distressed |
| A3 | Alive, but unlikely to live |
| A4 | Entangled, okay |
| A5 | Entangled, injured |
| A6 | Hooked, externally, injured |
| A7 | Hooked, internally, injured |
| A8 | Hooked, unknown, injured |
| D | Dead |
| D1 | Entangled, dead |
| D2 | Hooked, externally, dead |
| D3 | Hooked, internally, dead |
| D4 | Hooked, unknown, dead |
| U | Condition, unknown |
| U1 | Entangled, unknown condition |
| U2 | Hooked, externally, condition unknown |
| U3 | Hooked, internally, condition unknown |
| U4 | Hooked, unknown, condition unknown |

APPENDIX A11 – LENGTH CODES

| Length Code | Description |
|-------------|----------------------------------------|
| AN | Anal fin length |
| BL | Bill to fork in tail |
| CC | Curved Carapace Length |
| CK | Cleithrum to anterior base caudal keel |
| CL | carapace length (turtles) |
| CW | Carapace width |
| CX | Cleithrum to caudal fork |
| EO | Posterior eye orbital to caudal fork |
| EV | Posterior eye orbital to vent |
| FF | 1st dorsal to fork in tail |
| FN | Weight of all fins (sharks) |
| FS | 1st dorsal to 2nd dorsal |
| FW | Fillets weight |
| GF | Gilled, gutted, headed, flaps removed |
| GG | Gilled and gutted weight |
| GH | Gutted and headed weight |
| GI | Girth |
| GO | Gutted only (gills left in) |
| GT | Gilled, gutted and tailed |
| GX | Gutted, headed and tailed |
| LF | lower jaw to fork in tail |
| NM | not measured |
| OW | Observer's Estimate |
| PF | pectoral fin to fork in tail |
| PS | Pectoral fin to 2nd dorsal |
| SC | Straight Carapace Length |
| SL | Tip of snout to end of caudal peduncle |
| TH | Body Thickness (Width) |
| TL | tip of snout to end of tail |
| TW | total width (tip of wings - rays) |
| UF | upper jaw to fork in tail |
| US | Upper jaw to 2nd dorsal fin |
| WW | Whole weight |

APPENDIX A12 – SEX CODES

| Sex Code | Description |
|----------|------------------------------------|
| F | Female |
| I | Indeterminate (checked but unsure) |
| M | Male |
| U | Unknown (not checked) |

APPENDIX A13 – Vessel activity (SSI interaction) codes

| Activity Code for interaction | Description |
|-------------------------------|-------------|
| 1 | SETTING |
| 2 | HAULING |
| 3 | SEARCHING |
| 4 | TRANSITING |
| 5 | OTHER |

APPENDIX A14 – SIZE and SPECIES COMPOSITION SAMPLE PROTOCOL

| Sample Type | Description |
|-------------|--------------------------------------------------|
| R | Random (GRAB) sample |
| S | SPILL sample |
| B | Bycatch only sampling |
| F | Small-fish only sampling |
| O | Other type of sampling protocol (please specify) |

APPENDIX A15 – MEASURING INSTRUMENTS Codes

| Measure Code | Description |
|--------------|----------------------|
| B | BOARD |
| C | CALLIPER - ALUMINIUM |
| E | EYE |
| R | RULER |
| T | TAPE |
| U | UNKNOWN |
| W | CALLIPER - WOOD |

APPENDIX A16 – TRIP MONITORING QUESTION Codes

| QUESTION CODE | Description | WCPFC Question |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| RS-A | 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 | Y |
| RS-B | Request that an event not be reported by the observer | Y |
| RS-C | Mistreat other crew | N |
| RS-D | Did operator fail to provide observer with food, accommodation, etc. | Y |
| NR-A | Fish in areas where the vessel is not permitted to fish | Y |
| NR-B | Target species other than those they are licenced to target | N |
| NR-C | Use a fishing method other than the method the vessel was designed or licensed | Y |
| NR-D | Not display or present a valid (and current) licence document onboard | N |
| NR-E | Transfer or transship fish from or to another vessel | Y |
| NR-F | Was involved in bunkering activities | N |
| NR-G | Fail to stow fishing gear when entering areas where vessel is not authorised to fish | Y |
| WC-A | Fail to comply with any Commission Conservation and Management Measures (CMMs) | Y |
| WC-B | High-grade the catch | Y |
| WC-C | Fish on FAD during FAD Closure | N |
| LP-A | Inaccurately record vessel position on vessel log sheets for sets, hauling and catch | Y |
| LP-B | Fail to report vessel positions to countries where required | Y |
| LC-A | Inaccurately record retained 'Target Species' in the Vessel logs [or weekly reports] | Y |
| LC-B | Inaccurately record 'Target Species' Discards | Y |
| LC-C | Record target species inaccurately [eg. combine bigeye/yellowfin/skipjack catch] | Y |
| LC-D | Not record bycatch discards | N |
| LC-E | Inaccurately record retained bycatch Species | Y |
| LC-F | Inaccurately record discarded bycatch species | Y |
| SI-A | Land on deck Species of Special Interest (SSIs) | N |
| SI-B | Interact (not land) with SSIs | Y |
| PN-A | Dispose of any metals, plastics, chemicals or old fishing gear | Y |
| PN-B | Discharge any oil | Y |
| PN-C | Lose any fishing gear | Y |
| PN-D | Abandon any fishing gear | Y |
| PN-E | Fail to report any abandoned gear | Y |
| SS-A | Fail to monitor international safety frequencies | Y |
| SS-B | Carry out-of-date safety equipment | N |

APPENDIX A17 – VESSEL / AIRCRAFT SIGHTINGS Codes

| CODE | Description |
|------|------------------------------|
| 1 | SINGLE PURSE SEINE |
| 2 | LOGLINE |
| 3 | POLE AND LINE |
| 4 | MOTHERSHIP |
| 5 | TROLL |
| 6 | NET BOAT |
| 7 | BUNKER |
| 8 | SEARCH, ANCHOR OR LIGHT BOAT |
| 9 | FISH CARRIER |
| 10 | TRAWLER |
| 11 | LIGHT AIRCRAFT |
| 12 | HELICOPTER |
| 13 | OTHER |

APPENDIX A18 – ACTION Codes

| Action Codes | Description | FORM Used |
|--------------|-----------------------------------------------------------------------|----------------|
| AG | Aground | GEN6 |
| BG | Bunkering (transfer of fuel), vessel observer is on is GIVING | GEN1, GEN6 |
| BR | Bunkering (transfer of fuel), vessel observer is on is RECEIVING | GEN1, GEN6 |
| CR | Retained from a set solely because of catch-retention rules | PS5 |
| DF | Dumping of fish | GEN1 |
| DS | Discarded into the sea | PS5 |
| FI | Fishing | GEN1, GEN6 |
| FO | Fish On-board | PS5 |
| FS | From set | PS5 |
| NF | Not fishing | GEN1 |
| OG | Other, vessel observer is on is GIVING | GEN1 |
| OR | Other, vessel observer is on is RECEIVING | GEN1 |
| PF | Possibly fishing | GEN1 |
| SG | Set sharing, vessel observer is on is GIVING | GEN1 |
| SR | Set sharing, vessel observer is on is RECEIVING | GEN1,PS5 |
| TG | Transferring fish between vessels, vessel observer is on is GIVING | GEN1,PS5, GEN6 |
| TR | Transferring fish between vessels, vessel observer is on is RECEIVING | GEN1,PS5, GEN6 |
| UL | Unloaded at cannery or cool store | PS5 |
| WT | Transferred between wells | PS5 |

GEN1 – Vessel / Aircraft sightings

GEN6 – Pollution Report

PS-5 – Purse seine Well transfer

APPENDIX A19 – Purse seine CREW JOB Codes

| CODE | Description |
|------|---------------------|
| 1 | CAPTAIN |
| 2 | NAVIGATOR/MASTER |
| 3 | MATE |
| 4 | CHIEF ENGINEER |
| 5 | ASSISTANT ENGINEER |
| 6 | DECK BOSS |
| 7 | COOK |
| 8 | HELICOPTER PILOT |
| 9 | SKIFF MAN |
| 10 | WINCH MAN |
| 11 | HELICOPTER MECHANIC |
| 12 | CREW |
| 13 | NAVIGATOR |
| 14 | FISHING MASTER |
| 15 | RADIO OPERATOR |
| 16 | TRANSLATOR |

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APPENDIX A20 – MARINE DEVICES Codes

| Code | Description | WCPFC FIELD | GEAR LIST CODES |
|------|--------------------------------|-------------|-----------------|
| 1 | BATHYTHERMOGRAPH MBT | YES | |
| 2 | BIRD RADAR | YES | SP |
| 3 | CHART PLOTTER | YES | LSP |
| 4 | DEPTH SOUNDER | YES | LSP |
| 5 | DOPPLER CURRENT MONITOR | YES | |
| 6 | SATELLITE BUOY | YES | S |
| 7 | FISHERY INFORMATION SERVICES | YES | LSP |
| 8 | GPS | YES | LSP |
| 9 | NAVIGATIONAL RADAR #1 | YES | LP |
| 10 | RADIO BUOYS - CALL-UP | YES | LSP |
| 11 | RADIO BUOYS - NON CALL-UP | YES | LSP |
| 12 | RADIO BEACON DIRECTION FINDER | YES | LSP |
| 13 | SATELLITE - HF TELEX | YES | |
| 14 | SEA SURFACE TEMP. GAUGE | YES | LP |
| 15 | SONAR | YES | LSP |
| 16 | HF RADIO TELEPHONE | YES | |
| 17 | SMART-LINK PHONE | YES | |
| 18 | TRACK PLOTTER | YES | LSP |
| 19 | VESSEL MONITORING SYSTEM (VMS) | YES | LSP |
| 20 | WEATHER FACSIMILE | YES | LP |
| 21 | WEATHER SATELLITE MONITOR | YES | |
| 22 | NET SOUNDER | | LSP |
| 23 | BINOCULARS | | P |
| 24 | ECHO SOUNDING BUOY | | S |
| 25 | EPIRB | | |

APPENDIX A21 – DEVICE USAGE codes

| Code | Description |
|------|--------------------------------|
| | Not mentioned |
| ALL | used all the time for fishing |
| BRO | broken now but used normally |
| NA | Not applicable / Not filled |
| NOL | no longer ever used |
| OIF | used only in transit |
| RAR | used rarely |
| SIF | used often but only in fishing |
| TRA | used all the time |

APPENDIX A22 – WEIGHT MEASUREMENT codes

| Weight measurement code | Description |
|-------------------------|---------------------------------------|
| CW | Captain's Estimate |
| FN | Weight of all fins (sharks) |
| FW | Fillets weight |
| GF | Gilled, gutted, headed, flaps removed |
| GG | Gilled and gutted |
| GH | Gutted and headed |
| GO | Gutted only (gills left in) |
| GT | Gilled, gutted and tailed |
| GX | Gutted, headed and tailed |
| NM | Not measured |
| OW | Observer's Estimate |
| TW | Trunk weight |
| WW | Whole weight |

APPENDIX A23 – GONAD STAGE codes

| Gonad stage code | Short description | Description |
|------------------|-------------------|--------------------------------------------------------------------------------------|
| N | No information | No information |
| I | Immature | Ovary small and slender. Cross-section round |
| E | Early Maturing | Enlarged, pale yellow ovaries. Ova not visible. |
| L | Late Maturing | Enlarged, turgid, orange-yellow ovaries. Ova opaque |
| M | Mature | Enlarged, richly vascular, orange ovaries, losing turgidity. Ova translucent. |
| R | Ripe | Greatly enlarged ovaries, not turgid. Ova easily dislodged and extruded by pressure. |
| S | Spent | Flaccid, vascular ovaries. Most ova gone. Often dark orange-red coloration. |
| R | Recovering | Vascular ovaries. Next batch of ova developing. |

APPENDIX A24 – FAD ORIGIN codes

| FAD ORIGIN CODE | Description |
|-----------------|------------------------------------|
| 1 | Your vessel deployed this trip |
| 2 | Your vessel deployed previous trip |
| 3 | Other vessel (owner consent) |
| 4 | Other vessel (no owner consent) |
| 5 | Other vessel (consent unknown) |
| 6 | Drifting and found by your vessel |
| 7 | Deployed by FAD auxiliary vessel |
| 8 | Origin unknown |
| 9 | Other origin |

APPENDIX A25 – FAD DETECTION codes

| FAD DETECTION CODE | Description |
|--------------------|-------------------------------------|
| 1 | Seen from Vessel (no other method) |
| 2 | Seen from Helicopter |
| 3 | Marked with Radio beacon |
| 4 | Bird Radar |
| 6 | Info. from other vessel |
| 7 | Anchored (GPS) |
| 8 | Marked with Satellite Beacon |
| 9 | Navigation Radar |
| 10 | Lights |
| 11 | Flock of Birds sighted from vessel |
| 12 | Other (please specify) |
| 13 | Vessel deploying FAD (not detected) |

APPENDIX A26 – FAD MATERIAL codes

| FAD MATERIAL CODE | Description |
|-------------------|-------------------------------------|
| 1 | Logs, Trees or debris tied together |
| 2 | Timber/planks/pallets/spools |
| 3 | PVC or Plastic tubing |
| 4 | Plastic drums |
| 5 | Plastic Sheeting |
| 6 | Metal Drums (i.e. 44 gallon) |
| 7 | Philippines design drum FAD |
| 8 | Bamboo/Cane |
| 9 | Floats/Corks |
| 10 | Unknown (describe) |
| 11 | Chain, cable rings, weights |
| 12 | Cord/rope |
| 13 | Netting hanging underneath FAD |
| 14 | Bait containers |
| 15 | Sacking/bagging |
| 16 | Coconut fronds/tree branches |
| 17 | Other (describe) |

APPENDIX A27 – FAD TYPE codes

| FAD TYPE CODE | Description |
|---------------|------------------------------------------------|
| 1 | Man made object (Drifting FAD) |
| 2 | Man made object (Non FAD) |
| 3 | Tree or log (natural, free floating) |
| 4 | Tree or logs (converted into FAD) |
| 5 | Debris (flotsam bunched together) |
| 6 | Dead Animal (specify; i.e. whale, horse, etc.) |
| 7 | Anchored Raft, FAD, or Payao |
| 8 | Anchored Tree or Logs |
| 9 | Other (please specify) |
| 10 | Man made object (Drifting FAD)-changed |

APPENDIX A28 – POLLUTION GEAR codes

| POLLUTION GEAR CODE | DESCRIPTION |
|---------------------|---------------------|
| 1 | Lost during fishing |
| 2 | Abandoned |
| 3 | Dumped |

APPENDIX A29 – POLLUTION MATERIALS codes

| POLLUTION MATERIALS CODES | DESCRIPTION |
|---------------------------|------------------|
| 1 | Plastics |
| 2 | Metals |
| 3 | Waste Oils |
| 4 | Chemicals |
| 5 | Old fishing gear |
| 6 | General garbage |

APPENDIX A30 – POLLUTION SOURCE codes

| POLLUTION SOURCE CODES | DESCRIPTION |
|------------------------|--------------------------|
| 1 | Vessel Aground/Collision |
| 2 | Vessel at Anchor/Bearth |
| 3 | Vessel Underway |
| 4 | Land Based Source |
| 5 | Other |

APPENDIX A31 – POLLUTION TYPE codes

| POLLUTION TYPE CODES | DESCRIPTION |
|----------------------|--------------------------------|
| 1 | Waste dumped overboard |
| 2 | Oil spillages and leakages |
| 3 | Abandoned or Lost Fishing Gear |

Attachment 5

CONSULTATION DOCUMENT: DRAFT – SSPs FOR ELECTRONIC REPORTING IN THE WCPFC_{as} amended by
ERandEMWG1

Attachment 3B. Electronic data standard to be used for Paragraph 3 and Annex 1 of Scientific Data to be Provided to the Commission

Western and Central Pacific Fisheries Commission (WCPFC)

E-REPORTING STANDARD DATA FIELDS

OPERATIONAL LOGSHEET DATA

Draft – Version 2.0

7th June 2015

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INTRODUCTION

These tables set out the proposed standards for the provision of operational logsheet data fields collected in the WCPFC tropical purse seine fishery and the longline fisheries through E-Reporting. These tables provide the minimum requirements for data entities, data formats and data validation to be established for data submitted to the national and regional fisheries authorities from E-Reporting systems. The data fields contained herein are based on information collected under the current regional standard data collection forms. This document acknowledges that national fisheries authorities require data (e.g. licence/permit numbers and for anticipated Catch Documentation System – CDS – requirements) that are not mandatory WCPFC data fields, so a column in these tables identifies whether the data field is a mandatory WCPFC data field¹ or not.

These E-Reporting data field standards are consistent with, and should be considered in conjunction with more detailed instructions² on how to collect LOGBOOK data provided by SPC.

These tables are intended for, *inter alia*, E-Reporting service providers who have been contracted to provide electronic systems to record LOGBOOK information on-board purse seine vessels.

¹ The mandatory WCPFC data fields for operational LOGBOOK data are found in the “Scientific Data to be provided to the Commission - Attachment K, Annex 1. Standards for the Provision of Operational Level Catch and Effort Data”

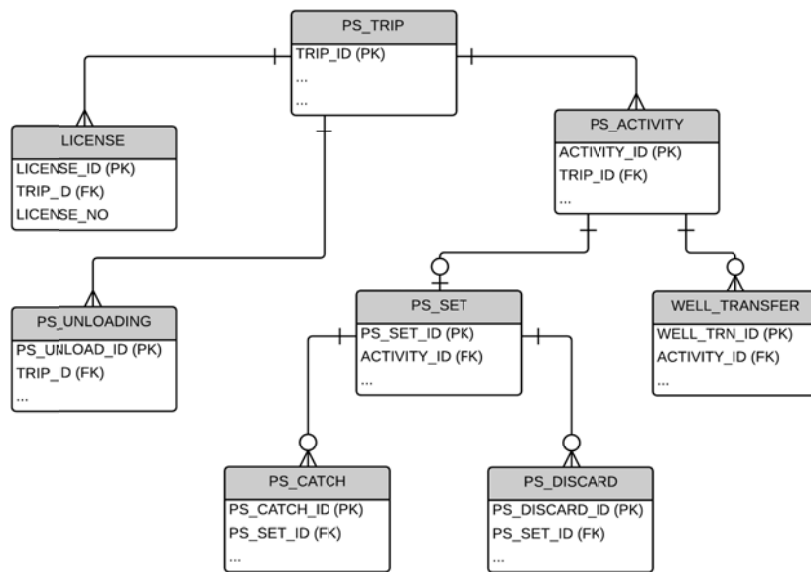
<http://www.wcpfc.int/system/files/Scientific%20Data%20to%20be%20Provided%20to%20the%20Commission%20-%20decision%20made%20by%20WCPFC10%20%28clean%29.pdf>

² In addition to the WCPFC LOGBOOK data fields requirements, instructions for LOGBOOK data collection in the WCPFC Area are available with the regional standard observer data collection forms at <http://www.spc.int/oceanfish/en/data-collection/241-data-collection-forms>.

1. PURSE SEINE LOGBOOK E-REPORTING STANDARDS

1.1 DATA MODEL DIAGRAM

The following basic data model diagram outlines the structure of the entities and their relationships for purse seine operational logsheet data collected by E-Reporting systems and submitted to national and regional fisheries authorities. The tables that follow provide more information on the mechanisms of the links (relationships) between the entities.



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1.2 PURSE SEINE TRIP-LEVEL DATA

| PS_TRIP | | | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------------------------------|-------------|
| "The start of a trip is defined to occur when a vessel (a) leaves port after unloading part or all of the catch to transit to a fishing area or (b) recommences fishing operations or transits to a fishing area after transshipping part or all of the catch at sea (when this occurs in accordance with the terms and conditions of article 4 of Annex III of the Convention, subject to specific exemptions as per article 29 of the Convention)." | | | | | | |
| FIELD | Data Collection Instructions | Field format notes | Validation rules | NAF CODE | XML TAG | WCPFC FIELD |
| TRIP IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL IDENTIFIER + DEPARTURE DATE | | | | <TRIP_ID> | |
| VESSEL IDENTIFIER | | | | | | |
| COUNTRY OF CHARTER | PROVIDE the Country responsible for chartering the vessel, where relevant. This only applies if the vessel has been chartered according to the requirements under WCPFC CMM 2012-05 - chartering notifications. | CHAR(2) ISO 3166-1 alpha-2 two-letter country code UPPER CASE | ISO 3166-1 alpha-2 two-letter country code This field must be completed if it has been listed as a chartered vessel on the WCPFC web site according to the requirements under WCPFC CMM 2012-05 - chartering notifications. | CS | <CHARTER> | Y |
| AGENT FOR UNLOADING | PROVIDE the name of the Agent for the Unloading | CHAR(50) | Where possible, link this field to a reference table of authorised Agents for unloading. (referential integrity) | AN | <AGENT> | N |
| TRIP NUMBER | PROVIDE the trip number undertaken by this vessel for the year. Trip number is sequential, starting at 1 for first trip of the year for each vessel. | INTEGER(2) | | TN | <TRIPNO> | N |
| PORT OF DEPARTURE | PROVIDE the Port of Departure | REFER TO APPENDIX A3 | Must be valid United Nations - Code for Trade and Transport Locations (UN/LOCODE) - see http://www.unece.org/cefact/locode/service/location | PE | <PORTDEPART> | Y |
| PLACE OF UNLOADING | PROVIDE the Port of Return for Unloading | REFER TO APPENDIX A3 | Must be valid United Nations - Code for Trade and Transport Locations (UN/LOCODE) | PO | <PORTUNLOAD> | Y |
| DATE and TIME OF DEPARTURE | PROVIDE the GMT/UTC DATE and TIME of departure for this | REFER TO APPENDIX A1 | ISO 8601 - Dates and times format The chronology of Departure date with respect to Date of | SD ST | <DATEDEPART> <TIMEDEPART> | Y |

PS_TRIP

“The start of a trip is defined to occur when a vessel (a) leaves port after unloading part or all of the catch to transit to a fishing area or (b) recommences fishing operations or transits to a fishing area after transshipping part or all of the catch at sea (when this occurs in accordance with the terms and conditions of article 4 of Annex III of the Convention, subject to specific exemptions as per article 29 of the Convention).”

| FIELD | Data Collection Instructions | Field format notes | Validation rules | NAF CODE | XML TAG | WCPFC FIELD |
|----------------------------------|-----------------------------------------------------------------------------------------------------------|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------------------------------------|-------------|
| | trip | | arrival in port and the Days at sea must be valid. | | | |
| DATE AND TIME OF ARRIVAL IN PORT | PROVIDE the GMT/UTC DATE and TIME of arrival back in port for this trip | REFER TO APPENDIX A1 | ISO 8601 - Dates and times format The chronology of Arrival date with respect to Date of Departure and the Days at sea must be valid. | ED ET | <DATEARRIVAL > <TIMEARRIVAL > | Y |
| FISH ONBOARD - START | PROVIDE the total amount of fish on-board at the time of leaving port on this trip. | NUMBER(4) | WARNING: Should be a realistic amount. For example, having catch >200 t. would be unrealistic? | QS | <AMOUNTSTART > | N |
| FISH ONBOARD - END | PROVIDE the total amount of fish on-board AFTER ALL UNLOADINGS have been undertaken before the next trip. | NUMBER(4) | WARNING: Should be a realistic amount. For example, having catch >200 t. would be unrealistic? Having catch greater than what was caught on the trip is not possible. | QE | <AMOUNTAFTER > | N |

1.3 LICENSE/PERMIT DATA

| LICENSE | | | | | | |
|-------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------------|-------------|
| PROVIDE each LICENSE/PERMIT that the vessel holds for the period of the trip. | | | | | | |
| FIELD | Data Collection Instructions | Field format notes | Validation rules | NAF CODE | XML TAG | WCPFC FIELD |
| TRIP IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE | | | | <TRIP_ID> | |
| FISHING PERMIT/LICENSE NUMBERS | PROVIDE License/Permit number that the vessel holds for the period of the TRIP. | CHAR(40) UPPER CASE | Where possible, include validation to ensure the Permit format relevant to the agreement (national or sub-regional) complies to the required format. | LC | <LICENSE_NO> | N |

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1.4 PS UNLOADING DATA

| PS UNLOADING | | | | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------|-------------|
| PROVIDE information for TRIP UNLOADING INFORMATION which covers one or several unloading events during or at the end of the trip to (i) carriers, (ii) on-shore processing plants (Canneries) and/or (iii) a net-share event with another catcher vessel | | | | | | |
| FIELD | Data Collection Instructions | Field format notes | Validation rules | NAF CODE | XML TAG | WCPFC FIELD |
| TRIP IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE | | Link to TRIP information | | <TRIP_ID> | |
| UNLOADING START DATE | PROVIDE the start date for this specific Unloading event | REFER TO APPENDIX A1 | ISO 8601 - Dates and times format GMT/UTC time [YYYY]-[MM]-[DD]T[HH]:[MM]Z The chronology of Unload Start date with respect to other dates for the trip and unloading must be valid. | SD | <STARTDATE> | N |
| UNLOADING END DATE | PROVIDE the end date for this specific Unloading event | REFER TO APPENDIX A1 | ISO 8601 - Dates and times format GMT/UTC time [YYYY]-[MM]-[DD]T[HH]:[MM]Z The chronology of Unload End date with respect to other dates for the trip and unloading must be valid. | ED | <ENDDATE> | N |
| CARRIER VESSEL IDENTIFIER | REFER TO APPENDIX A4 If relevant, PROVIDE the receiving CARRIER VESSEL for this specific Unloading event. Note that for NET-SHARE events, this could be another purse seine catcher vessel. If Relevant, PROVIDE the FFA VID for the CARRIER vessel. Must be consistent with the WCPFC and FFA Vessel Registers | | | | | |
| CANNERY/ DESTINATION | If relevant, PROVIDE the receiving CANNERY/DESTINATION for this specific Unloading event. | CHAR(40) UPPER CASE | Where possible, link this field to a reference table of authorised Canneries/Destinations (referential integrity) | FD FN | <DESTINATION> | N |
| SKJ UNLOADED | PROVIDE the total weight (metric tonnes) of SKIPJACK unloaded in this specific Unloading event | DECIMAL(7,3) | CONTROL TOTAL CHECK: Total amounts for this trip should reconcile checking total trip catch, catch on-board at start, catch on-board at end and all unloading events. | DQ | <UNLOADSKJ> | N |
| YFT UNLOADED | PROVIDE the total weight (metric tonnes) of YELLOWFIN unloaded in this specific Unloading event | DECIMAL(7,3) | | DQ | <UNLOADYFT> | N |
| BET UNLOADED | PROVIDE the total weight (metric tonnes) of BIGEYE unloaded in this specific Unloading event | DECIMAL(7,3) | | DQ | <UNLOADBET> | N |
| MIXED TUNA UNLOADED | PROVIDE the total weight (metric tonnes) of MIXED TUNA unloaded in this specific Unloading event | DECIMAL(7,3) | | DQ | <UNLOADMIX> | N |

PS_UNLOADING

PROVIDE information for TRIP UNLOADING INFORMATION which covers one or several unloading events during or at the end of the trip to (i) carriers, (ii) on-shore processing plants (Canneries) and/or (iii) a net-share event with another catcher vessel

| FIELD | Data Collection Instructions | Field format notes | Validation rules | NAF CODE | XML TAG | WCPFC FIELD |
|------------------|-----------------------------------------------------------------------------------------------------|--------------------|------------------|----------|-------------|-------------|
| OTHERS UNLOADED | PROVIDE the total weight (metric tonnes) of OTHERS unloaded in this specific Unloading event | DECIMAL(7,3) | | DQ | <UNLOADOTH> | N |
| REJECTS UNLOADED | PROVIDE the total weight (metric tonnes) of REJECTED TUNA unloaded in this specific Unloading event | DECIMAL(7,3) | | RT | <UNLOADREJ> | N |

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1.5 PS ACTIVITY DATA

| PS ACTIVITY | | | | | | |
|----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------|-------------|
| PROVIDE information on the designated activities for each DAY AT SEA | | | | | | |
| FIELD | Data Collection Instructions | Field format notes | Validation rules | NAF CODE | XML TAG | WCPFC FIELD |
| TRIP IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE | | Link to TRIP information | | <TRIP_ID> | |
| ACTIVITY IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be DATE + START TIME OF ACTIVITY | | | | <ACTIVITY_ID> | |
| DATE | PROVIDE the DATE for each day that the vessel is at sea. | REFER TO APPENDIX A1 | Expect to be automatically integrated/generated with GPS DEVICE | DA | <DATE_EVENT > | Y |
| START TIME OF ACTIVITY | PROVIDE the time when the ACTIVITY started | REFER TO APPENDIX A1 | Expect to be automatically integrated/generated with GPS DEVICE | ST | <TIME_EVENT> | Y |
| LATITUDE | PROVIDE the LATITUDE position when the ACTIVITY started | REFER TO APPENDIX A2 | Expect to be automatically integrated/generated with GPS DEVICE | LT | <LAT> <LATH> | Y |
| LONGITUDE | PROVIDE the LONGITUDE position when the ACTIVITY started | REFER TO APPENDIX A2 | Expect to be automatically integrated/generated with GPS DEVICE | LG | <LON> <LONH> | Y |
| ACTIVITY | PROVIDE each new ACTIVITY of the vessel within the DAY | REFER TO APPENDIX A5 | The code must be within the valid range. Ensure relational integrity for certain values, for example, "1 - Fishing Set" must link to a SET record and perhaps to other tables "8 - Non-Set Well Transfer" must link to a WELL TRANSFER record | AT | <S_ACT_ID> | Y |

1.6 PS SET LEVEL DATA

| PS SET | | | | | | |
|------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------------|-------------|
| PROVIDE information for each FISHING SET | | | | | | |
| FIELD | Data Collection Instructions | Field format notes | Validation rules | NAF CODE | XML TAG | WCPFC FIELD |
| TRIP IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE | | Link to TRIP information | | <TRIP_ID> | |
| ACTIVITY IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be DATE + START TIME OF ACTIVITY | | Link to ACTIVITY (SET) | | <ACTIVITY_ID > | |
| START DATE/TIME OF SET | PROVIDE the start time of the set which is defined at the time the SKIFF is launched. | REFER TO APPENDIX A1 | Expect to be automatically integrated/generated with GPS DEVICE The chronology of SET START TIME with respect to other dates/times for the trip must be valid. | ST | <SETSTART> | Y |
| END DATE/TIME OF SET | PROVIDE the end time of the set which is defined as the time when the "RINGS UP" ON DECK. | REFER TO APPENDIX A1 | Expect to be automatically integrated/generated with GPS DEVICE The chronology of SET END TIME with respect to other dates/times for the trip must be valid. | ET | <SETEND> | Y |
| SCHOOL ASSOCIATION | PROVIDE the School Associated Code | REFER TO APPENDIX A6 | The code must be within the valid range. | SA | <SCHOOL> | Y |
| SCHOOL ASSOCIATION NOTE | PROVIDE information of the SCHOOL ASSOCIATION in cases where the school association is not covered in the list of School association codes 1. To 7. | VARCHAR(30) | Used only when the SCHOOL ASSOCIATION = 8 | SA | <SCH_NOTE> | Y |

1.7 PS CATCH DATA

| PS_CATCH | | | | | | |
|---------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------|-------------|
| PROVIDE information on each species catch RETAINED from a SET | | | | | | |
| FIELD | Data Collection Instructions | Field format notes | Validation rules | NAF CODE | XML TAG | WCPFC FIELD |
| TRIP IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE | | Link to TRIP information | | <TRIP_ID> | |
| ACTIVITY IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be DATE + START TIME OF ACTIVITY | | Link to ACTIVITY (SET) | | <ACTIVITY_ID> | |
| SET IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be DATE + START TIME OF SET | | Link to PS_SET | | <PS_SET_ID> | |
| SPECIES CODE | For each species taken in the set and RETAINED, PROVIDE the SPECIES CODE according to the FAO standard species code list | CHAR(3) | REFER TO APPENDIX 7. | DC | <SP_CODE> | Y |
| SIZE CATEGORY | For Yellowfin (YFT) and Bigeye tuna (BET) RETAINED catch, distinguish the catch by size category < 9kgs and > 9kgs) otherwise leave blank. | CHAR(2) | LG - Large Fish (>= 9 kgs) SM - Small Fish (< 9 kgs) <Blank> - Not applicable Validate that it can only be used for YFT and BET. | DC | <SP_SIZE> | N |
| WELL TO | Well number where the catch is moved to. Set catch for this species/size category may be moved to more than one well. (Used for Catch Documentation systems). | CHAR(3) | Valid code DIS - Discard of fish to sea from a well (e.g. due to spoilage) Snn - Starboard well with number = <nn> Pnn - Port well with number = <nn> Cnn - Central well with number = <nn> | TC | <WELL_TO> | N |
| RETAINED WEIGHT | PROVIDE the RETAINED ESTIMATED WEIGHT (metric tonnes, to 3 decimal places if possible) covering this species/size category combination. | DECIMAL(7,3) | Validate that it is within the acceptable range for this species. (Refer to the SPECIES_RANGE table provided) | DC | <SP_RET_MT> | Y |
| RETAINED NUMBER | PROVIDE the RETAINED NUMBER covering this species/size category combination. This is only required for non-target species. | INTEGER(6) | Validate that it is within the acceptable range for this species. (Refer to the SPECIES_RANGE table provided) | DC | <SP_RET_NO> | N |

1.8 PS DISCARD DATA

| PS DISCARD | | | | | | |
|----------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|--------------------|---------------------------------------------------------------------------------------------------------------|----------|---------------|-------------|
| PROVIDE information on each species catch DISCARDED from a SET | | | | | | |
| FIELD | Data Collection Instructions | Field format notes | Validation rules | NAF CODE | XML TAG | WCPFC FIELD |
| TRIP IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE | | Link to TRIP information | | <TRIP_ID> | |
| ACTIVITY IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be DATE + START TIME OF ACTIVITY | | Link to ACTIVITY (SET) | | <ACTIVITY_ID> | |
| SET IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be DATE + START TIME OF SET | | Link to PS_SET | | <PS_SET_ID> | |
| SPECIES CODE | For each species taken in the set and DISCARDED, PROVIDE the SPECIES CODE according to the FAO standard species code list | CHAR(3) | REFER TO APPENDIX 7. | DI | <SP_CODE> | Y |
| DISCARDED WEIGHT | PROVIDE the DISCARDED ESTIMATED WEIGHT (metric tonnes, to 3 decimal places if possible) covering this species. | DECIMAL(7,3) | Validate that it is within the acceptable range for this species. (Refer to the SPECIES_RANGE table provided) | DI | <SP_DISC_MT> | Y |
| DISCARDED NUMBER | PROVIDE the DISCARDED NUMBER, where appropriate. | INTEGER(6) | Validate that it is within the acceptable range for this species. (Refer to the SPECIES_RANGE table provided) | DI | <SP_DISC_NO> | Y |
| REASON FOR DISCARD | PROVIDE the reason for the DISCARD. | INTEGER(1) | REFER TO APPENDIX 8. | DI | <DISC_REA_ID> | Y |
| REASON FOR DISCARD NOTE | PROVIDE information of the REASON FOR DISCARD in cases where the code is not covered in the list of Reason codes 1. To 4. | VARCHAR(30) | Used only when the REASON FOR DISCARD = 5 | DI | <DISC_NOTE> | Y |

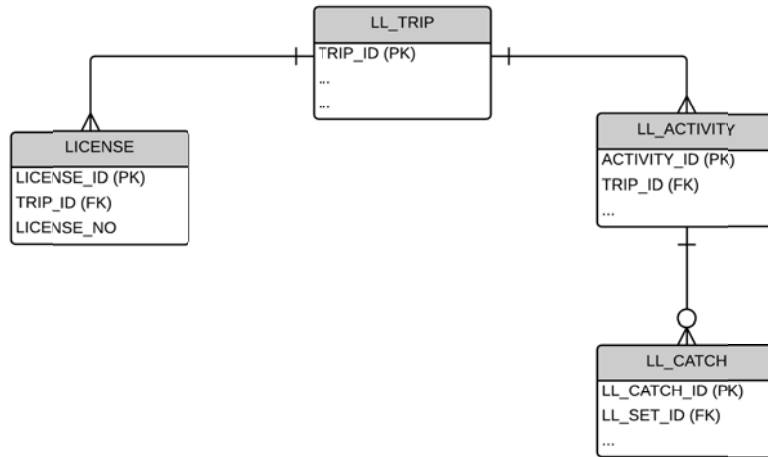
1.9 PS WELL TRANSFER DATA

| WELL TRANSFER | | | | | | |
|-------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------------|-------------|
| PROVIDE information on each WELL TRANSFER or NET-to-WELL TRANSFER when the relevant ACTIVITIES are recorded | | | | | | |
| FIELD | Data Collection Instructions | Field format notes | Validation rules | NAF CODE | XML TAG | WCPFC FIELD |
| TRIP IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE | | Link to TRIP information | | <TRIP_ID> | |
| ACTIVITY IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be DATE + START TIME OF ACTIVITY | | Link to ACTIVITY (SET or WELL TRANSFER) | | <ACTIVITY_ID> | |
| WELL FROM | Well number or the NET (in the case of a set) where the catch is coming from. | CHAR(3) | Valid code Snn - Starboard well with number = <nn> Pnn - Port well with number = <nn> Cnn - Central well with number = <nn> | TC | <WELL_FROM> | N |
| WELL TO | Well number where the catch is moved to. Note that this includes DISCARDS of fish from the well. | CHAR(3) | Valid code DIS - Discard of fish to sea from a well (e.g. due to spoilage) Snn - Starboard well with number = <nn> Pnn - Port well with number = <nn> Cnn - Central well with number = <nn> | TC | <WELL_TO> | N |
| SPECIES CODE | For each species catch transferred, PROVIDE the SPECIES CODE according to the FAO standard species code list | CHAR(3) UPPER CASE | REFER TO APPENDIX 7. | TC | <SP_CODE_WELL> | N |
| SIZE CATEGORY | For Yellowfin (YFT) and Bigeye tuna (BET) transferred catch, distinguish the catch by size category < 9kgs and > 9kgs) otherwise leave blank. | CHAR(2) | LG - Large Fish (>= 9 kgs) SM - Small Fish (< 9 kgs) <Blank> - Not applicable Validate that it can only be used for YFT and BET. | DC | <SP_WELL_SIZE> | N |
| WEIGHT TRANSFERRED | PROVIDE the WEIGHT (metric tonnes, to 3 decimal places if possible) of the species transferred. | DECIMAL(6,3) | | TC | <SP_WELL_MT> | N |

2. LONGLINE LOGBOOK E-REPORTING STANDARDS

2.1 DATA MODEL DIAGRAM

The following basic data model diagram outlines the structure of the entities and their relationships for longline operational logsheet data collected by E-Reporting systems and submitted to national and regional fisheries authorities. The tables that follow provide more information on the mechanisms of the links (relationships) between the entities.



2.2 LONGLINE TRIP-LEVEL DATA

| LL_TRIP | | | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------------------|-------------|
| “The start of a trip is defined to occur when a vessel (a) leaves port after unloading part or all of the catch to transit to a fishing area or (b) recommences fishing operations or transits to a fishing area after transshipping part or all of the catch at sea (when this occurs in accordance with the terms and conditions of article 4 of Annex III of the Convention, subject to specific exemptions as per article 29 of the Convention).” | | | | | | |
| FIELD | Data Collection Instructions | Field format notes | Validation rules | NAF CODE | XML TAG | WCPFC FIELD |
| TRIP IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL IDENTIFIER + DEPARTURE DATE | | | | <TRIP_ID> | |
| VESSEL IDENTIFIER | REFER TO APPENDIX A4 | | | | | |
| COUNTRY OF CHARTER | PROVIDE the Country responsible for chartering the vessel, where relevant. This only applies if the vessel has been chartered according to the requirements under WCFPC CMM 2012-05 - chartering notifications. | CHAR(2) ISO 3166-1 alpha-2 two-letter country code UPPER CASE | ISO 3166-1 alpha-2 two-letter country code This field must be completed if it has been listed as a chartered vessel on the WCFPC web site according to the requirements under WCFPC CMM 2012-05 - chartering notifications. | CS | <CHARTER> | Y |
| AGENT FOR UNLOADING | PROVIDE the name of the Agent for the Unloading | CHAR(50) | Where possible, link this field to a reference table of authorised Agents for unloading. (referential integrity) | AN | <AGENT> | N |
| TRIP NUMBER | PROVIDE the trip number undertaken by this vessel for the year. Trip number is sequential, starting at 1 for first trip of the year for each vessel. | INTEGER(2) | | TN | <TRIPNO> | N |
| PRIMARY TARGET SPECIES | PROVIDE the Primary Target species for this trip | CHAR(3) | REFER TO APPENDIX A7 | DC | <SP_CODE_TARGET> | N |
| PORT OF DEPARTURE | PROVIDE the Port of Departure | CHAR(5) UN/LOCODE UPPERCASE | REFER TO APPENDIX A3 | PE | <PORTDEPART> | Y |
| PLACE OF UNLOADING / TRANSHIPMENT AT SEA | PROVIDE the Port of Return for Unloading or indicate TRANSHIPMENT AT SEA | CHAR(5) UN/LOCODE UPPERCASE | REFER TO APPENDIX A3 | PO | <PORTUNLOAD> | Y |

LL_TRIP

“The start of a trip is defined to occur when a vessel (a) leaves port after unloading part or all of the catch to transit to a fishing area or (b) recommences fishing operations or transits to a fishing area after transshipping part or all of the catch at sea (when this occurs in accordance with the terms and conditions of article 4 of Annex III of the Convention, subject to specific exemptions as per article 29 of the Convention).”

| FIELD | Data Collection Instructions | Field format notes | Validation rules | NAF CODE | XML TAG | WCPFC FIELD |
|--------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|--------------------------------------|--------------------------------------|----------|---------------|-------------|
| DATE and TIME OF DEPARTURE | PROVIDE the GMT/UTC DATE and TIME of departure for this trip | REFER TO APPENDIX A1 | REFER TO APPENDIX A1 | SD ST | <DATEDEPART> | Y |
| DATE AND TIME OF ARRIVAL IN PORT / TRANSHIPMENT AT SEA | PROVIDE the GMT/UTC DATE and TIME of arrival back in port for this trip or indicate DATE for the TRANSHIPMENT AT SEA | REFER TO APPENDIX A1 | REFER TO APPENDIX A1 | ED ET | <DATEARRIVAL> | Y |

2.3 LICENSE/PERMIT DATA

| LICENSE | | | | | | |
|-------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------------|-------------|
| PROVIDE each LICENSE/PERMIT that the vessel holds for the period of the trip. | | | | | | |
| FIELD | Data Collection Instructions | Field format notes | Validation rules | NAF CODE | XML TAG | WCPFC FIELD |
| TRIP IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE | | | | <TRIP_ID> | |
| FISHING PERMIT/LICENSE NUMBERS | PROVIDE License/Permit number that the vessel holds for the period of the TRIP. | CHAR(40) UPPER CASE | Where possible, include validation to ensure the Permit format relevant to the agreement (national or sub-regional) complies to the required format. | LC | <LICENSE_NO> | N |

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2.4 LL ACTIVITY/SET DATA

| LL ACTIVITY | | | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------|-------------|
| PROVIDE the following information on EACH FISHING SET; if there was no fishing set on that day, provide information on the MAIN ACTIVITY FOR THAT DAY AT SEA | | | | | | |
| FIELD | Data Collection Instructions | Field format notes | Validation rules | NAF CODE | XML TAG | WCPFC FIELD |
| TRIP IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE | | Link to TRIP information | | <TRIP_ID> | |
| ACTIVITY IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be DATE + START TIME OF ACTIVITY | | | | <ACTIVITY_ID> | |
| ACTIVITY DATE/TIME | PROVIDE the NOON DATE/TIME for each day that the vessel is at sea when a set was not made on that day, OR the START DATE/TIME of the SET | REFER TO APPENDIX A1 | Expect to be automatically integrated/generated with GPS DEVICE | DA | <ACT_DATE> | Y |
| ACTIVITY | PROVIDE the ACTIVITY CODE | NUMBER(2) | REFER TO APPENDIX A5 | AT | <L_ACT_ID> | Y |
| LATITUDE | PROVIDE the LATITUDE position when the ACTIVITY started | REFER TO APPENDIX A2 | Expect to be automatically integrated/generated with GPS DEVICE Check of position relative to previous position and whether it is realistic to have travelled that distance in the allotted time. | LT | <LAT> <LATH> | Y |
| LONGITUDE | PROVIDE the LONGITUDE position when the ACTIVITY started | REFER TO APPENDIX A2 | Expect to be automatically integrated/generated with GPS DEVICE Check of position relative to previous position and whether it is realistic to have travelled that distance in the allotted time. | LG | <LON> <LONH> | Y |
| HOOKS BETWEEN FLOATS | PROVIDE the HOOKS BETWEEN FLOATS (synonymous to BRANCHLINES between FLOATS) for this set | NUMBER(2) | The code must be within the valid range. Only relevant with ACTIVITY = "1 - FISHING SET" | SA | <HK_BTWN_FLT> | Y |
| HOOKS | PROVIDE the total number of HOOKs set | NUMBER(4) | The code must be within the valid range (e.g. < 5,000 hooks). Only relevant with ACTIVITY = "1 - FISHING SET" | SA | <HOOKS> | Y |

2.5 LL CATCH DATA

| LL_CATCH | | | | | | |
|------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|-----------------------|---------------------------------------------------------------------------------------------------------------|----------|---------------|-------------|
| PROVIDE information on each species catch from a SET | | | | | | |
| FIELD | Data Collection Instructions | Field format notes | Validation rules | NAF CODE | XML TAG | WCPFC FIELD |
| TRIP IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE | | Link to TRIP information | | <TRIP_ID> | |
| ACTIVITY IDENTIFIER | Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be DATE + START TIME OF ACTIVITY | | Link to ACTIVITY (SET) | | <ACTIVITY_ID> | |
| SPECIES CODE | For each species taken in the set, PROVIDE the SPECIES CODE according to the FAO standard species code list | CHAR(3) UPPER CASE | REFER TO APPENDIX 8. | DC | <SP_CODE_RET> | Y |
| RETAINED NUMBER | PROVIDE the NUMBER OF RETAINED FISH covering this species. | INTEGER(6) | Validate that it is within the acceptable range for this species. (Refer to the SPECIES_RANGE table provided) | DC | <SP_RET_NO> | Y |
| RETAINED WEIGHT | PROVIDE the RETAINED ESTIMATED WEIGHT (metric tonnes to three decimal places) for this species. | DECIMAL(6,3) | Validate that it is within the acceptable range for this species. (Refer to the SPECIES_RANGE table provided) | DC | <SP_RET_MT> | Y |
| DISCARDED / RELEASED NUMBER | PROVIDE the NUMBER of this species DISCARDED or RELEASED. | INTEGER(6) | Validate that it is within the acceptable range for this species. (Refer to the SPECIES_RANGE table provided) | DC | <SP_RET_NO> | Y |

APPENDICES

APPENDIX A1 – DATE/TIME FORMAT

The DATE/TIME formats must adhere to the following standard:
ISO 8601 - Dates and times format – both local and UTC dates

[YYYY]-[MM]-[DD]T[HH]:[MM]Z for fields designated as UTC date/time

[YYYY]-[MM]-[DD]T[HH]:[MM] for fields designated as LOCAL date/time

APPENDIX A2 – POSITION/COORDINATE FORMAT

The Latitude and Longitude coordinates must adhere to the ISO 6709 – Positions
Degrees and minutes to 3 decimal places

LATITUDE +/- DDMM.MMM
LONGITUDE +/- DDDMM.MMM

APPENDIX A3 – PORT LOCATION CODES

The PORT LOCATION Codes must adhere to the UN/LOCODE standard UPPERCASE CHAR(5)
United Nations - Code for Trade and Transport Locations (UN/LOCODE) – see
<http://www.unece.org/cefact/locode/service/location>

APPENDIX A4 – VESSEL IDENTIFICATION

The attributes to be provided for the VESSEL needs to be consistent with several VESSEL registers at the global and regional level. The most important are the proposed IMO/UVI standard vessel identifier (UVI), the WCPFC vessel register and the FFA Vessel register.

| FIELD | Data Collection Instructions | Field format notes | Validation rules | XML TAG | WCPFC FIELD |
|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-------------|
| VESSEL NAME | PROVIDE the VESSEL attributes which should be consistent with the attributes stored in the WCPFC and FFA Regional Vessel Registers | CHAR(30) UPPER CASE | Must be consistent with the WCPFC and FFA Vessel Registers | <VESSELNAME> | Y |
| COUNTRY OF VESSEL REGISTRATION | | CHAR(2) ISO 3166-1 alpha-2 two-letter country code UPPER CASE | ISO 3166-1 alpha-2 two-letter country code Must be consistent with the WCPFC and FFA Vessel Registers Country of registration is distinct from the chartering nation, where relevant | <COUNTRYREG> | Y |
| VESSEL REGISTRATION NUMBER | | CHAR(20) UPPER CASE | Must be consistent with the WCPFC and FFA Vessel Registers | <REGNO> | Y |
| FFA VESSEL REGISTER NUMBER | | INTEGER(5) | Must be consistent with the FFA Vessel Register | <FFAVID> | N |
| WCPFC RFV VID | | INTEGER(10) | Must be consistent with the WCPFC RFV | <WIN> | Y |
| UNIVERSAL VESSEL IDENTIFIER (UVI) | | INTEGER(10) | Must be consistent with the WCPFC and FFA Vessel Registers | <IMO_UVI> | N |
| VESSEL INTERNATIONAL CALLSIGN | | CHAR(10) UPPER CASE | Must be consistent with the WCPFC and FFA Vessel Registers | <IRCS> | Y |

APPENDIX A5 – PURSE SEINE OBSERVER ACTIVITY CODES

| S_ACTIV_ID | Description | PURSE SEINE LOGSHEET | LOGLINE LOGSHEET | PURSE SEINE OBSERVER |
|------------|--------------------------------------------|----------------------|------------------|----------------------|
| 1 | Set | Y | Y | Y |
| 2 | Searching | Y | N | Y |
| 3 | Transit | Y | Y | Y |
| 4 | No fishing - Breakdown | Y | Y | Y |
| 5 | No fishing - Bad weather | Y | Y | Y |
| 6 | In port - please specify | Y | Y | Y |
| 7 | Net cleaning set | Y | N | Y |
| 8 | Investigate free school | Y | N | Y |
| 9 | Investigate floating object | Y | N | Y |
| 10 | Deploy - raft, FAD or payao | Y | N | Y |
| 11 | Retrieve - raft, FAD or payao | Y | N | Y |
| 12 | No fishing - Drifting at day's end | N | N | Y |
| 13 | No fishing - Drifting with floating object | N | N | Y |
| 14 | No fishing - Other reason (specify) | N | N | Y |
| 15 | Drifting -With fish aggregating lights | N | N | Y |
| 16 | Retrieve radio buoy | N | N | Y |
| 17 | Deploy radio buoy | N | N | Y |
| 18 | Transhipping or bunkering | N | Y | Y |
| 19 | Servicing FAD or floating object | Y | N | Y |
| 20 | <i>Helicopter takes off to search</i> | <i>N</i> | <i>N</i> | <i>Y</i> |
| 21 | <i>Helicopter returned from search</i> | <i>N</i> | <i>N</i> | <i>Y</i> |

APPENDIX A6 – PURSE SEINE TUNA SCHOOL ASSOCIATION CODES

| S_ACTIV_ID | Description | SCHOOL TYPE CATEGORY |
|------------|-------------------------------------|----------------------|
| 1 | Unassociated (free school) | UNASSOCIATED |
| 2 | Feeding on Baitfish (free school) | UNASSOCIATED |
| 3 | Drifting log, debris or dead animal | ASSOCIATED |
| 4 | Drifting raft, FAD or payao | ASSOCIATED |
| 5 | Anchored raft, FAD or payao | ASSOCIATED |
| 6 | Live whale | ASSOCIATED |
| 7 | Live whale shark | ASSOCIATED |
| 8 | Other (please specify) | |
| 9 | No tuna associated | |

APPENDIX A7 – SPECIES CODES

Refer to the FAO three-letter species codes:

<http://www.fao.org/fishery/collection/asfis/en>

APPENDIX A8 – PURSE SEINE REASON FOR DISCARD

| REASON CODE | Description |
|-------------|--------------------------------------|
| 1 | FISH DAMAGED / UNFIT FOR CONSUMPTION |
| 2 | VESSEL FULLY LOADED |
| 3 | GEAR FAILURE |
| 4 | NON-TARGET SPECIES |
| 5 | OTHER REASON (SPECIFY) |

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Attachment 4. Electronic Formatting Specifications for observer data and logbook data

These specifications describe the electronic files that CCMs must provide if they choose to use electronic reporting technologies to meet the following WCPFC reporting requirements:

- i. Paragraph 3 and Annex 1 of *Scientific Data to be Provided to the Commission*;
- ii. *WCPFC ROP Minimum Standard Data Fields*, as amended by WCPFC11 decisions.

A) File type

The information must be provided in one of the following formats:

Microsoft Excel file ; Comma separated values (CSV) text file ; Text file (TAB delimited) ; text file (no delimiters) XML

B) File name

The name of the file must be: **XX DDD VID DEPDATE <Table Name>.EXT**

- **XX** – two letter ISO country code (CMM 2014-03 Att 7) of the CCM providing the file
- **DDD** – type of report (LOG – logbook e-data and OBS – Observers e-data)
- **VID** – five digit integer assigned number for a vessels record on the WCPFC Record of Fishing Vessels (RFV) (CMM 2014-03)
- **DEPDATE** – Departure date of the Vessel trip (format YYYYMMDD)
- **<Table Name>** – Respective (subset data) table name within this data type (refer to the relevant list of tables in the E-Reporting LOGSHEET and OBSERVER data field standards)
- **EXT** – the standard file extension (according to one of the five available formats)
 - XML
 - TXT file – COMMA delimited (CSV)
 - TXT file – TAB delimited
 - TXT file – No delimiters
 - XLS

Example : FM_OBS_35641_20140214_PS_CATCH.CSV

Represents a comma-delimited file provided by Federated States of Micronesia for an observer trip on-board the vessel identified with WCPFC RFV id as ‘35641’ with a departure date of 14/03/2014; This file is the subset data for this trip corresponding to the PS_CATCH Table in the ER Observer data standards document

C) File content and structure

Each record in the electronic file represents a single report. Each record must have the structure specified in Attachment 3A or 3B, including the same sequence of fields.

Sample electronic reporting files with the proper formats are available from the Secretariat.



WCPFC ER and EM WG1 Nadi, 8-10 July 2015

Agenda Item 2: Review of information/updates on applications of ER and EM technologies in WCPO

2.3: Report from Subregional Agencies: SPC



Update on E-Reporting (vessels)

- 2 longline vessels using eTUNALOG in NC
- 3 longline vessels using eTUNALOG in CK
- Plans to conduct trials in VU, FJ, FM and FP
- PS vessels still using eTUNALOG (mostly US Treaty vessels)



eTUNALOG for LL Vessels



- Front end: Smart PDF. Back end: XML
- Ability to import into TUFMAN and TUFMAN 2
- Plans to release v1.4 with more detailed summary page

Revised March 2014

SPC / FFA REGIONAL LONGLINE LOGSHEET (EXPANDED FORMAT)

ALL DATES AND TIMES MUST BE UTC / GMT - WEIGHTS IN KILOGRAMS
START A NEW LOGSHEET AFTER FULL OR PARTIAL UNLOADING/TRANSHIPMENT

Longline PDF v1.1

Name of Vessel: **LONGLINE TEST**

Fishing Company: **FISH TUNA** FFA VID: **1 2 3 4 5**

Country Regist: **SOLOMON ISLANDS** UVI: **12,345**

Registration No: **SI12345** IRC: **12345**

Permit / License: **SI12345** Agent: **HELP TUNA**

Port Depart: **NORO** Date Depart: **12-Feb-15** Time: **14:45**

Port Unload: **NORO** Date Unload: **18-Feb-15** Time: **18:45**

Primary Target Sp: **YELLOWFIN** Year: **2015** Trip No: **1**

Captain's Name: **JOHN NEMO**

Send Data **Flat PDF** **Print** **Save**

| CATCH SUMMARY | | | | |
|-----------------|------------|-------------|----------|---------------|
| MAIN SPECIES | No. | Kg | Disc | CPUE |
| ALBACORE | 55 | 850 | | 17.000 |
| BIGEYE | 15 | 250 | | 5.000 |
| PACIFIC BLUEFIN | | | | 0.000 |
| SKIPJACK | 2 | 20 | | 0.400 |
| YELLOWFIN | 55 | 850 | | 17.000 |
| BLACK MARLIN | | | | 0.000 |
| BLUE MARLIN | 1 | 200 | | 4.000 |
| STRIPED MARLIN | | | | 0.000 |
| SWORDFISH | 3 | 500 | | 10.000 |
| BLUESHARK | | | 1 | 0.000 |
| HAMMERHEAD SH | | | 1 | 0.000 |
| MAKO SHARK | | | 1 | 0.000 |
| OCEAN WHITETIP | | | 2 | 0.000 |
| PORBEAGLE SHARK | | | | 0.000 |
| SILKY SHARK | | | 1 | 0.000 |
| THRESHER SHARK | | | | 0.000 |
| OTHER | 42 | 405 | | 8.100 |
| TOTAL | 173 | 3075 | 6 | 61.500 |

| CATCH SUMMARY | | | | |
|-----------------|------------|-------------|----------|---------------|
| MAIN SPECIES | No. | Kg | Disc | CPUE |
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| BLUESHARK | | | 1 | 0.000 |
| HAMMERHEAD SH | | | 1 | 0.000 |
| MAKO SHARK | | | 1 | 0.000 |
| OCEAN WHITETIP | | | 2 | 0.000 |
| PORBEAGLE SHARK | | | | 0.000 |
| SILKY SHARK | | | 1 | 0.000 |
| THRESHER SHARK | | | | 0.000 |
| OTHER | 42 | 405 | | 8.100 |
| TOTAL | 173 | 3075 | 6 | 61.500 |

One page per day



VESEL TRIP

Vessel: **LONGLINE TEST** Reg: **NC12345** FFAVID: **1 2 3 4 5** Port Depart: **NORO** Date Depart: **10-Feb-15** Page: **2 / 2**

SET

| DATE | ACTIVITY | LATITUDE (DDMM.MMM) | N S | LONGITUDE (DDDMM.MMM) | E W | SET START | NO. OF HOOKS SET | HOOKS BETWEEN FLOATS |
|------------------|----------------|------------------------|----------|--------------------------|----------|--------------|---------------------|-------------------------|
| 10-Feb-15 | 1-A SET | 1234.567 | S | 12345.678 | E | 14:56 | 2556 | 27 |

Comments -> **NEW CREW LONG TIME TO DEPLOY**

CATCH (Kg)

| | ALBACORE | BIGEYE | PACIFIC BLUEFIN | SKIPJACK | YELLOWFIN | BLACK MARLIN | BLUE MARLIN | STRIPED MARLIN |
|----------|----------|--------|-----------------|----------|-----------|--------------|-------------|----------------|
| NO. RET | 34 | 10 | 1 | 5 | 20 | | | |
| KG RET | | | | | | | | |
| NO. DISC | 1 | | | 2 | 2 | | | |

| | SWORDFISH | BLUE SHARK | HAMMERHEAD SHARK | MAKO SHARK | OCEANIC WHITETIP | PORBEAGLE SHARK | SILKY SHARK | THRESHER SHARK |
|----------|-----------|------------|------------------|------------|------------------|-----------------|-------------|----------------|
| NO. RET | | | | | | | | |
| KG RET | | | | | | | | |
| NO. DISC | | 2 | | 1 | | | 1 | |

OTHER SPECIES (click on + to add extra species, on - to delete the last one)

| | MAHI MAHI | WAHOO | OPAH | GREAT BARRACUDA |
|----------|-----------|-------|------|-----------------|
| NO. RET | 10 | 8 | 10 | |
| KG RET | | | | |
| NO. DISC | | | | |

BUTTERFLY TUNA / ESCOLAR
GREAT BARRACUDA
LANCETFISH
MAHI MAHI
OILFISH
OPAH
OTHER FISH



How to download eTUNALOG

- Google search: type in eTUNALOG
- Click on the first page that is listed
- <http://www.spc.int/oceanfish/en/ofpsection/data-management/spc-members/e-reporting/379-etunalog-smart-pdf-manager>
- Click on 'Download eTUNALOG' blue button



Update on E-Reporting (observers)

- Since 2013, 10 observers trained in ER using TUBS
- 5 laptops equipped with TUBS
- 22 debriefed trips received at SPC
- Consider Electronic Journal and Trip Report writing





Update on E-Reporting Officers

- MH (September 2014)
 - Coordinating TUBS trials, eTUNALOG trials (LL and PS)
 - Coordinating FIMS trials (observers)
- CK (February 2015)
 - Coordinating LL eTUNALOG trials
- FM (April 2015)
 - Coordinating TUBS trials
 - Coordinating FIMS trials (observers)



Update on E-Monitoring

- 2014: Two vessel trial in SB
 - In process of conducting comparative analysis between EM and on-board observer data
- 2015: Single vessel trial launched in NC
- Plan: Review of EM technology offered by technical service providers



Electronic Monitoring: New Caledonia



Project partners



- Direction des Affaires Maritimes de la Nouvelle-Calédonie – service de la pêche et de l'environnement marin (DAM-SPE)
- Secretariat of the Pacific Community – Oceanic Fisheries Programme (SPC-OFP)
- L'ADECAL Technopôle
- Fishing company BABY BLUE
- EM technical service provider SATLINK

Project objectives



- To determine whether EM can be used to accurately observe the effort and catch activities, after the trip has been completed.
- Provide data that can be used in the same way as those collected by on-board observers.
- The project will run for one year. EM equipment could potentially be fitted onboard other vessels in New Caledonia if results are satisfactory.
- This project will also serve as a lesson learned for other member countries that would like to increase their longline observer coverage.

EM equipment



- 3 High definition cameras
- VMS antennae
- Central unit with 4 hard drives and screen to relay videos



Cameras views



•Cam 1: Starboard outwards and forward



• Cam 3: Processing area



•Cam 2: Aft section

Observer will be able to keep count of hook and float numbers as they are hauled.





Observer will be able to identify bait species and count amount used. Shooter speed can be determined using specialised software.



Precise fish size measurements will be achievable from this camera angle



Project schedule

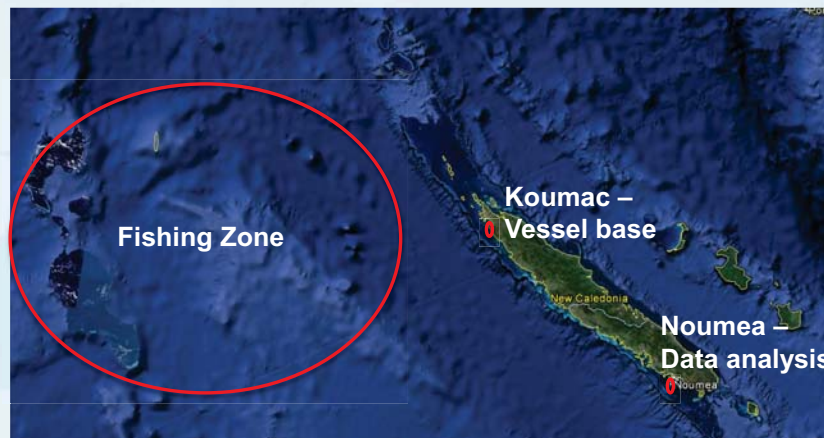


- **July 2015:**
 - EM equipment installed on vessel and office observer trained
- **February 2016:**
 - Audit from Satlink on data analysis centre
- **April 2016:**
 - Begin writing final report
- **July 2016:**
 - End of pilot project
- **August 2016:**
 - Report to stakeholders and decision makers

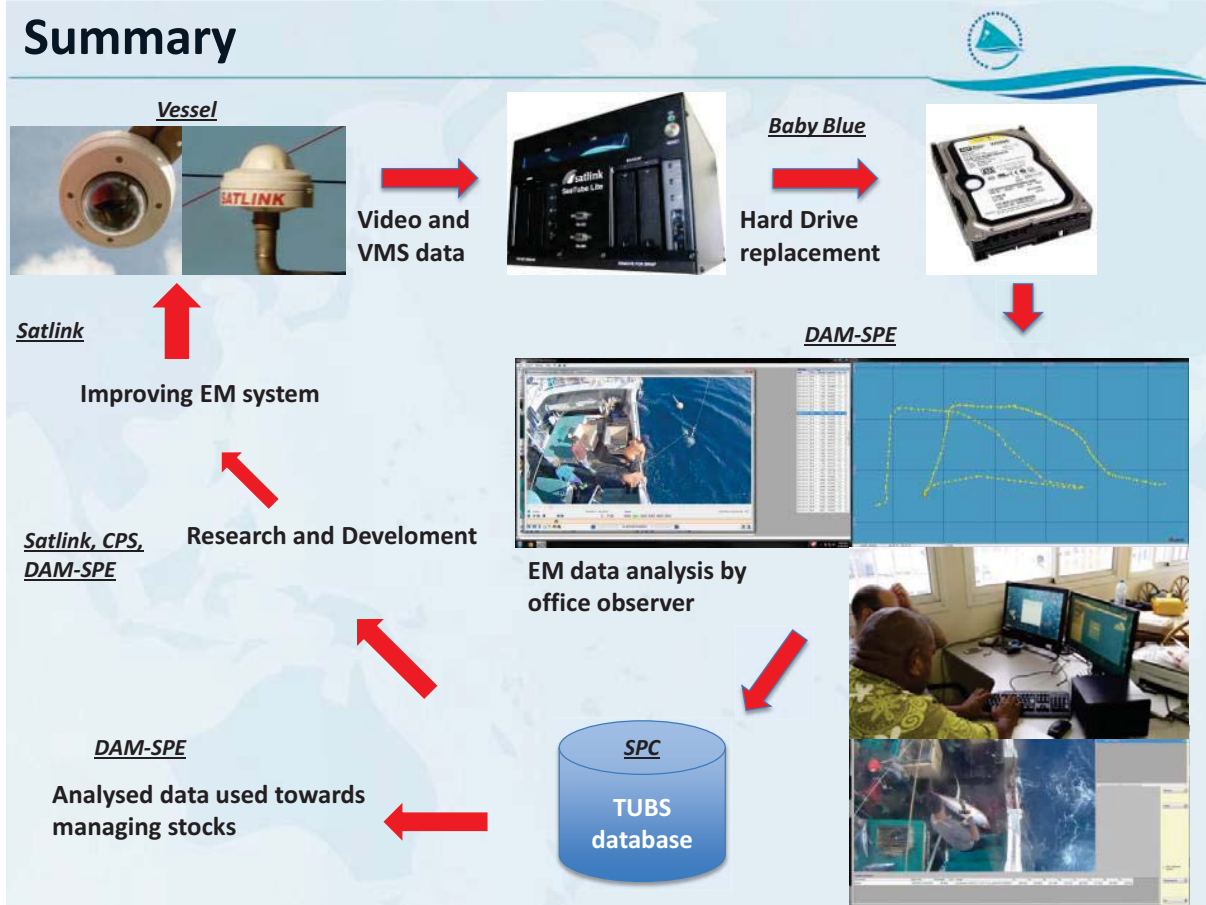
Project management



- A steering committee including representatives from each party will maintain weekly communications and will meet every two months.
- Two project coordinators (DAM and SPC) will meet every two weeks with the office observer to plan and supervise EM data analysis.



Summary



Thank you

For further information please contact: .

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– Tel : 26 20 00